October 4, 2022

L-2022-160
10 CFR 50.90
10 CFR 50.54(q)

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Re: Florida Power & Light Company
St. Lucie Units 1 and 2, Docket Nos. 50-335, 50-389
Turkey Point Units 3 and 4, Docket Nos. 50-250, 50-251

NextEra Energy Seabrook, LLC
Seabrook Station, Docket No. 50-443

NextEra Energy Point Beach, LLC
Point Beach Units 1 and 2, Docket Nos. 50-266, 50-301

Subject: License Amendment Request for Common Emergency Plan Consistent with NUREG-0654, Revision 2

Florida Power & Light Company (FPL), acting on behalf of itself and as agent for NextEra Energy Seabrook, LLC and NextEra Energy Point Beach, LLC, is submitting a request to change the emergency plan for each site. Specifically, a new fleet common emergency plan with site-specific annexes is proposed. In this submittal, FPL, NextEra Energy Seabrook, LLC, and NextEra Energy Point Beach, LLC are referred to collectively as "NextEra"), as is the shared fleet Emergency Response Organization. The proposed fleet common emergency plan is referred to as the "NextEra Common Emergency Plan." This new emergency plan was developed utilizing NUREG-0654/ FEMA-REP-1, Revision 2 (NUREG-0654, Revision 2). This request was developed with a licensing-basis freeze point of March 1, 2022, because Turkey Point Nuclear Generating Plant, Units Nos. 3 and 4, Point Beach Nuclear Plant, Units 1 and 2, and Seabrook Station, Unit 1 have revised their current emergency plans to maintain their site-specific emergency plans current. Detailed description and justification are provided in Enclosures 1 through 4 to demonstrate that the new fleet common emergency plan with site-specific annexes will continue to provide reasonable assurance for response to radiological emergencies.

It is noted that a combined license (COL) has been approved for Turkey Point Nuclear Generating Plant, Units 6 & 7 (PTN 6 & 7). Subsequent to approval of this amendment, FPL recognizes that prior to commencing operations at PTN 6 & 7, an evaluation would need to be performed to determine the aspects, if any, requiring prior NRC approval before adding PTN 6 & 7 to the Common Emergency Plan.

Enclosures 1 through 4 provide a description and assessment of the proposed changes for each site. Enclosure 5 provides the proposed NextEra Common Emergency Plan. Enclosures 6 through 9 provide the proposed site-specific annexes to the NextEra Common Emergency Plan. Enclosure 10 provides Offsite Response Organization (ORO) concurrence letters.

FPL requests approval of the proposed amendment within one year of NRC acceptance of this submittal. Once approved, the amendment shall be implemented within 12 months. Enclosure 4 makes a new regulatory commitment:

Seabrook Station, Unit 1 plans to implement the Unified RASCAL Interface (URI), a user friendly Visual Basic.net program when the Common Emergency Plan is implemented.

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated state officials.

If you should have any questions regarding this submittal, please contact Steve Catron, Fleet Licensing and Regulatory Compliance Director, at 561-304-6206.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 10/4, 2022

Sincerely,

Dianne Strand

General Manager Regulatory Affairs
Florida Power & Light Company

Enclosures:

1. Point Beach Nuclear Plant, Units 1 and 2 Evaluation of Proposed Changes
2. St. Lucie Plant, Units 1 and 2 Evaluation of Proposed Changes
3. Turkey Point Nuclear Generating Plant, Units 3 and 4 Evaluation of Proposed Changes
4. Seabrook Station, Unit 1 Evaluation of Proposed Changes
5. EP-AA-100, NextEra Common Emergency Plan
6. EP-PBN-110, PBN Emergency Plan Annex
7. EP-PSL-120, PSL Emergency Plan Annex
8. EP-PTN-130, PTN Emergency Plan Annex
9. EP-SBK-140, SBK Emergency Plan Annex
10. Offsite Response Organization Concurrence

cc: NRC Project Manager - Point Beach
NRC Project Manager - St. Lucie
NRC Project Manager - Turkey Point
NRC Project Manager - Seabrook

Enclosure 1

NextEra Energy Point Beach, LLC

Point Beach Nuclear Plant, Units 1 and 2

Dockets 50-266 and 50-301 / Renewed Facility Operating Licenses DPR-24 and DPR-27

License Amendment Request for Common Emergency Plan
Consistent with NUREG-0654, Revision 2

EVALUATION OF PROPOSED CHANGES

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1.0 SUMMARY DESCRIPTION

Pursuant to 10 CFR 50.90, NextEra Energy Point Beach, LLC (NEPB) requests amendments to the operating licenses for Point Beach Nuclear Plant (PBN). Specifically, the proposed changes would revise the operating licenses to adopt the proposed NextEra Common Emergency Plan and site-specific annexes. The proposed NextEra Common Emergency Plan establishes an updated licensing basis for PBN that complies with current NRC regulations in 10 CFR 50.47 (Reference 6.1) and 10 CFR 50 Appendix E (Reference 6.4), and the guidance NUREG-0654/FEMA-REP-1, Revision 2 (Reference 6.8).

NextEra has developed the proposed common emergency plan using the NUREG-0654/FEMA-REP-1, Revision 2 outline and is organized such that each evaluation criterion (or planning element) is explicitly stated, followed by a description of how the NextEra Common Emergency Plan will address that criterion.

The proposed NextEra Common Emergency Plan provides the basis for response actions that would be implemented in an emergency and the requirements for maintenance and administration of the emergency preparedness program. Planning elements common to all sites are encompassed within the common emergency plan. The site-specific annexes generally contain unique information such as:

- Local agency and support organizations, site specific agreement lists, etc.
- Site specific response facilities and equipment
- Site specific commitments

The formal PBN Emergency Plan consists of the following separately maintained Emergency Preparedness (EP) licensing basis documents, all of which are subject to the requirements of 10 CFR 50.54(q) (Reference 6.2):

- NextEra Common Emergency Plan
- PBN Emergency Plan Annex
- PBN Emergency Action Level Technical Basis
- PBN On-Shift Staffing Analysis
- PBN Evacuation Time Estimate Study
- PBN Protective Action Recommendation Strategy Technical Basis
- PBN Alert and Notification System Design Report

Enclosures 5 through 9 contain the proposed NextEra Common Emergency Plan and the site-specific emergency plan annexes, respectively. This license amendment request is limited to the proposed NextEra Common Emergency Plan, PBN Emergency Plan Annex, and the On-Shift Staffing Analysis, of which only the proposed NextEra Common Emergency Plan and the PBN Emergency Plan Annex require NRC approval. The results of the On-Shift Staffing Analysis are described in Section 3.5 of this change evaluation. The remaining Emergency Plan licensing basis documents are not affected by the re-baselining of the PBN Emergency Plan.

2.0 DETAILED DESCRIPTION

2.1 Proposed Changes

The proposed NextEra Common Emergency Plan was developed based upon NRC guidance contained in NUREG-0654/FEMA-REP-1, Revision 2 (Reference 6.8).

This re-baselining of the emergency plan includes revisions to align staffing with the functions and major task delineations, specifically the on-shift and minimum augmenting Emergency Response Organization (ERO) assigned within these functional areas. Consistent with the NUREG-0654/FEMA-REP-1, Revision 2, the proposed changes will also remove reference to non-minimum augmenting ERO positions from the emergency plan while retaining appropriate positions in the applicable implementing procedures.

Changes in the proposed NextEra Common Emergency Plan and PBN Emergency Plan Annex that could be considered a reduction in effectiveness (RIE) from the updated NUREG-0654/FEMA-REP-1, Revision 2, guidance or from the current PBN emergency plan have been identified in this document as potential RIEs. Detailed justification is provided for those potential RIEs in Section 3, Technical Evaluation, to document that the proposed NextEra Common Emergency Plan and PBN Emergency Plan Annex continues to provide an adequate response to radiological emergencies.

- Section 3.1 documents the technical advancements and program enhancements implemented after the original Emergency Plan was approved or are included in the proposed Emergency Plan
- Section 3.2 documents and dispositions the RIEs determined in the ERO functional analysis
- Section 3.3 documents and dispositions the RIEs determined in the ERO augmentation analysis
- Section 3.4 documents and dispositions the RIE determined in the ERO task analysis
- Section 3.5 documents the results of the ERO on-shift staffing analysis
- Section 3.6 documents and dispositions the RIEs determined in the approved Emergency Plan to current Emergency Plan comparison analysis
- Section 3.7 documents and dispositions the RIEs determined in the proposed Emergency Plan to current Emergency Plan comparison analysis
- Section 3.8 documents and dispositions the RIEs determined in the proposed Emergency Plan to NUREG-0654/FEMA-REP-1, Revision 2, criterion comparison analysis
- Section 3.9 documents the results of the site specific commitment analysis
- Section 3.10 documents the impact of the proposed changes on state and ORO emergency plans

Additionally, an Emergency Plan to 10 CFR 50 Appendix E comparison analysis was developed. The results of this analysis are documented in Appendix 3 of the proposed NextEra Common Emergency Plan (Enclosure 5).

2.2 Reason for the Proposed Changes

The PBN emergency plan is being converted into the proposed NextEra Common Emergency Plan and PBN Emergency Plan Annex, which are based primarily on the NUREG-0654 /FEMA-REP-1, Revision 2 guidance.

By standardizing the emergency plans across the fleet, NextEra will make program wide improvements by standardization of response organizations, duties and responsibilities, processes, procedures, and training. NextEra also will align the sites using consistent standards and definitions.

2.3 Current PBN Emergency Plan Background

The NRC's Safety Evaluation Report (SER) for the PBN facility operating license, dated January 1984 (Reference 6.17), documents approval of the emergency plan (Revision 20). upgraded in response to NUREG-0737, *"Clarification of TMI Action Plan Requirements,".* (Reference 6.12)

Other notable NRC approved change to the PBN emergency plan include Amendments 255, 259, authorized an increase in ERO response times for PBN Units 1 and 2, respectively. (Reference 6.18)

3.0 TECHNICAL EVALUATION

The evaluation of the proposed changes is discussed below.

3.1 Technical Advancements and Program Enhancements

The sub-sections below describe the site specific and industry improvements implemented or proposed since the last revision of the NUREG-0654 /FEMA-REP-1 guidance (greater than 40 years) and initial approval of the PBN emergency plan. The industry has had following generic process, program and technical change enhancements:

- Plant systems and procedures, including:
  - Severe Accident Management Guidelines (SAMG)
  - FLEX Support Guidelines (FSG)
  - Extensive Damage Mitigation Guidelines (EDMG)
  - EOP/AOP
  - Plant computer, control and instrumentation systems
- Emergency preparedness (EP) programs, processes, and equipment, including:
  - Communication and notification systems (Plant and public)
  - Dose Assessment programs and processes
  - Emergency Action Levels (EALs)
  - NRC ERDS system
- Operator, ERO, and General Employee Training (GET) training
- Radiological monitoring systems
- Computer and internet usage
- Work Control – Risk Assessment

Many of the advancements and enhancements have resulted from responses to Three Mile Island, Chernobyl, September 11th, and Fukushima. These changes have been instituted and codified, in many cases, which better supports ERO functions, ease operator burden, and improves augmented ERO efficiency.

In addition to site specific and industry enhancements, the Nuclear Regulatory Commission (NRC) has updated and improved on regulations, guidance documents (NUREGs), inspections (ISGs), Regulatory Issue Summaries (RISs), etc. which has resulted in overall positive emergency preparedness programs. Specifically, the Emergency Preparedness Final Rule (10 CFR 50.47, Emergency Plans and Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities, to 10 CFR 50 (published in the Federal Register (FR) on November 23, 2011 (76 FR 72560)) codified Emergency Preparedness program enhancements for security and non-security event related topics. The Final Rule included improvements and clarity based upon technology advances implementation and lessons learned from drills/exercises and actual events. The Final Rule included the following:

- On-Shift Staffing Analysis
- Emergency Response Organization Augmentation at Alternate Facility
- Licensee Coordination with Offsite Response Organizations
- Protective Actions for Onsite Personnel
- Challenging Drills and Exercises
- Emergency Declaration Timeliness
- EOF – Performance-Based Approach

- Backup Means for Alert and Notification Systems
- ORO Event Response Integration with Nuclear Power Plants
- Emergency Action Levels (EALs) for Security Events
- Amended Emergency Plan Change Process
- Updating of Evacuation Time Estimates (ETEs)

The improvements to processes, procedures, equipment, and training that have occurred since initial approval of the PBN emergency plan have resulted in a significant increase in on-shift and augmented ERO knowledge and capability.

These improvements collectively support the overall conclusion that there would be no degradation or loss of function resulting from the changes in the proposed PBN emergency plan.

3.1.1 Information Gathering and Display Systems

PBN's plant computer system has been upgraded several times since the original PBN emergency plan was approved. The current system, Plant Process Computer System (PPCS) graphically displays pertinent parameters with trending and graphing capabilities, alarm functions, and color-coded Critical Safety Function Status Trees. PPCS provides the capability to monitor and trend plant parameters in real-time, including primary coolant system parameters, reactor core thermal performance parameters, emergency core cooling system (ECCS) parameters, meteorological data, containment isolation status, and radiation monitor readings.

The PPCS user interface was designed to be intuitive, require inputs, and allow for active monitoring of real-time plant data via system diagrams and Critical Safety Function displays. The PPCS computer system is powered via Vital AC Power with a DC battery backup.

Benefits of the upgraded PPCS system include:

- Programming capability for automated response, such as indication of critical parameter alarms
- Improved plant monitoring capability for Emergency Director and STA functions
- Fewer inputs required to switch between graphical displays
- Real-time plant data available through graphical displays

Additionally, the PPCS provides plant and environmental data used to assess abnormal operating conditions and mitigate the consequences of an accident. PPCS performs the following emergency response support functions:

- Implementation of the Safety Parameter Display System as described in NUREG-0696 and NUREG-0737, Supplement 1.
- Data acquisition and signal processing for the Engineered Safety Features Status Monitoring System.
- Data acquisition and signal processing for the normal plant monitoring systems, including portions of the plant annunciator system.
- Data processing for offsite datalinks to the NRC Emergency Response Data system (ERDS).

PPCS workstations are provided in the Control Room, Auxiliary Shutdown Panels (ASP), TSC, EOF, and remotely.

3.1.2 Dose Assessment and Protective Action Recommendations

The NUREG-0654/FEMA-REP-1, Revision 1 emergency plans included exposure and dose rate determination using transparent overlays showing lines of constant dose appropriate for the existing meteorological conditions together with appropriately scaled maps of the area surrounding the plant (a manual method). Since then, radiological dose assessment has benefited from technological advances that make its use simpler and less time consuming. Dose assessment program advancements have simplified rapid assessment capability, and on-shift dose assessment, allowing the function to be performed as a collateral duty.

Point Beach uses the Unified RASCAL Interface (URI), a user friendly Visual Basic.net program. The current version of URI is a Microsoft Windows-based application and supports multi-unit / multi-accident assessment of radiological releases. URI utilizes menus and toolbars with the majority of inputs on a single screen making the program user friendly. URI has simplified data entry requirements and dose assessment can be performed with minimal data input. Computer displays have been developed to obtain the necessary plant, radiological effluent, area radiation monitor, and meteorological near-real time information that is used by on-shift and augmenting ERO personnel to perform dose assessment. Thus, dose assessment enhancements have reduced the time required to perform dose assessment and to provide the results to the Emergency Director.

Redundant dose assessment computers were installed as part of the implementation of Cyber Security requirements. PBN has an individual plant data screen dedicated to the needs of dose assessment inputs.

The plant display systems (see discussion above) have improved over the years allowing access to more data points used with dose assessment.

Dose assessment results and field monitoring readings assist in evaluating appropriate Emergency Classification Levels (ECLs) based on radiological Emergency Action Levels (EALs) and developing Protective Action Recommendations (PARs).

The ERO uses NUREG-0654/FEMA-REP-1, Revision 1, Supplement 3 based flowcharts to determine the appropriate Protective Action Recommendation to provide to offsite authorities, which allow for rapid determination of a PAR based on plant conditions, wind direction and radiological assessments.

The overall improvements in technology and information availability over the years have enabled the on-shift staff to assess plant conditions quickly and efficiently, and with less distraction than before. The computational power of modern processors allows for calculation of dose projections that take seconds rather than minutes.

3.1.3 Procedural Improvements

a. Emergency Operating Procedures (EOPs)

Since NUREG-0654/FEMA-REP-1, Revision 1, EOPs have been developed and improved through industry initiatives. EOPs generally use a symptom-based approach that demands less assessment and interpretation of plant conditions by the operators. In addition, the EOPs are better human factored, and have an improved layout allowing for more consistent implementation.

EOPs interface well with new technology such as the plant process control system. The plant process control system is capable of graphically displaying plant conditions to assist in EOP execution.

b. Emergency Action Levels (EALs)

NEPB has updated its EAL scheme to the latest NRC endorsed scheme published in NEI 99-01, Development of Emergency Action Levels for Non-Passive Reactors, Revision 6. The PBN EALs incorporate the new guidance that has simplified the classification process, including the use of a matrix of EAL initiating conditions that streamlines the process of evaluating EALs against plant conditions.

3.1.4 Training

a. Operations Training

Training is used to strategically drive improved performance at the NextEra sites. Since NUREG-0654/FEMA-REP-1, Revision 1, use of the Systematic Approach to Training process has resulted in developing a task list for operations personnel. This process ensures training is conducted to industry-accepted standards and has led to accreditation of the Operations Training Programs by the Institute of Nuclear Power Operations (INPO) National Academy for Nuclear Training.

The simulator is routinely used during operations training. Simulator requalification evaluations include emergency response scenarios. Simulator scenarios are designed to be realistic and reflect a wide range of plant conditions, including emergency conditions. During simulator-evaluated sessions the Control Room staff is taken from normal operations to accident conditions which require evaluation against EALs and may result in an ECL up to a General Emergency. The operations crew performs emergency plan critical functions, such as classification, core damage assessment, accident mitigation, response prioritization, and communications without augmentation from additional responders. The proficiency of the Control Room staff in performing these functions, while maintaining situational awareness, without additional support is assessed during evaluated simulator sessions.

The Licensed Operator Requalification program includes licensed operations crew performance evaluations that are to consider the scenario guidance attributes of INPO Operations Department Standing Instruction, ODSI-3, Operations Department Guidance for Conducting Crew Performance Evaluations.

INPO ODSI-3 provides guidance on the realistic integration of the emergency response into crew performance evaluations. The purpose is to ensure the challenges the Emergency Plan responsibilities add to the crew's ability to manage an event are realistically represented in crew training and performance evaluations.

b. Shift Technical Advisor Training

The Shift Technical Advisor (STA) was originally trained as an advisor to the operating shift per NUREG-0737, Clarification of TMI Action Plan Requirements. In 2014, additional guidelines were developed by INPO for the training of STAs. This is detailed in the document ACAD 14-002, Guidelines for the Training and Qualification of the Shift Technical Advisor.

The ACAD 14-002 guidelines describe the role of the STA. The STA performs independent assessments of plant operating concerns, technical support, appropriate corrective actions, analysis of events and their effects, effectiveness of response(s) to emergent conditions, classifications of emergencies, protection of the public and any other actions related to critical safety functions and plant safety during abnormal and emergency situations. By routine monitoring of equipment and plant operations, the STA can focus on preventative actions in order to mitigate the consequences of an accident. The STA, if separate, also assists the Shift Manager with operability, risk and reportability determinations, and EAL classification.

The STA training and qualification program adheres to the requirements of INPO 90-003 and is implemented by training program procedures.

3.1.5 Radiation Protection (RP) Improvements

There have been many improvements in RP since the ERO staffing was established under NUREG-0654/FEMA-REP-1, Revision 1, guidance. There have been advances in technology for currently available equipment such as portal monitors, self-reading and alarming dosimeters, and automated access control points.

Some RP support functions associated with in-plant protective actions, such as access control, personnel monitoring, and dosimetry are now included in rad worker training and qualification given to operations and maintenance personnel. These tasks now require much less dedicated support from RP personnel since they are performed by a broader segment of the organization using newer technology, tools, and plant process enhancements. The following summarizes these enhancements:

a. Access Control and Dosimetry

When the PBN emergency plan was originally issued, radiological access control was a labor-intensive task. Dedicated Radiation Protection Technicians (RPTs) were required to ensure workers read and understood their Radiation Work Permit (RWP). Issuance of dosimetry was a manual process requiring RPTs to calibrate, issue and record dosimeters, verify worker training, and verify and track radiation dose margins.

Radiological access control is now automated using computerized radiation protection work processes. Radiological access control is primarily completed using electronic dosimetry, which is obtained prior to entry into Radiologically Controlled Areas (RCAs). The electronic dosimeter is also used as a "key" to unlock turnstiles to gain access to RCAs. Electronic RWPs establish the necessary preset electronic dosimeter warning and alarm parameters. Using electronic dosimeters eliminates the need for access control and dosimetry oversight by an RPT. Electronic RWP access control and electronic dosimeter computer systems provide a fully integrated system allowing workers to sign-in to their RWP and to self-issue electronic dosimeters. These systems have been routinely used by plant workers for numerous years. Additionally, emergency electronic dosimeters are available for use when expedited entrance to an RCA is required.

b. Personal Monitoring

Automated whole-body and extremity monitors provide simplified contamination monitoring. All radiation workers are qualified to use the automated whole-body monitors without RPT support or direction.

When the automated whole-body monitors are not available, hand-held friskers can be used for personnel contamination monitoring. All radiation workers are qualified to use the hand-held friskers without RPT support or direction.

3.1.6 Automated Call-Out Systems

Since initial approval of the PBN emergency plan, NextEra has implemented enhancements to the ERO mobilization process, including updated technology capable of rapidly notifying the entire ERO. The original process used a pager network and call tree process, while the current process uses a multi-line automated callout system that notifies ERO members via cell phones, home phones and internet (as applicable) via a single activation call from any telephone. For redundancy, the automated notification system has a primary and backup facilities located in different geographic locations with separate computer systems and databases, and communications lines.

3.2 ERO Key Function Analysis

The ERO Key Function Analysis compares and evaluates the current emergency plan on-shift and minimum staff ERO positions against those in the proposed emergency plan and in NUREG-0654 R2 guidance. Staffing deviations in the proposed emergency plan from the current emergency plan and NUREG-0654 R2 are categorized as potential RIEs and evaluated to determine whether the capability to perform the function is sustained (no degradation or loss of function).

Refer to Attachment 1, ERO Staffing Plan Comparison Table, for a side-by-side summary staffing and augmentation comparison between NUREG-0654 R2 Table B-1, the current emergency plan, and the proposed emergency plan.

The Key Function Analysis establishes that no degradation or loss of function, or mis-alignment or loss of task assignment would occur as a result of any change made to the on-shift and minimum augmenting ERO positions. This alternate staffing approach continues to support timely and effective performance of the Major Functional Areas and Major Tasks listed in NUREG-0654 R2 Table B-1.

3.2.1 **[Potential RIE 1-1]** No EOF Director/ED Position

The proposed emergency plan does not assign an EOF Emergency Director minimum staff ERO position at the Site Area Emergency classification level for the Command and Control function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Command and Control function from two (2) to one (1). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *For a SAE ECL, or greater, these functions (or a subset of them), typically those associated with protective action recommendations (PARs), should be assigned to an Emergency Director located in the EOF….*

The NextEra TSCs and EOFs are activated at an Alert emergency classification level. By activating both the TSC and EOF at an Alert emergency classification level and maintaining the non-delegable tasks of classification, notification, and PARs in the TSC, the proposed emergency plan does not need to provide additional augmenting ERO positions to move those tasks between emergency response facilities.

An EOF Emergency Director minimum staff ERO position is not needed at the Site Area Emergency classification level as the Command and Control function, along with all non-delegable responsibilities, are transferred from the Shift Manager to the Site Emergency Director at the Alert emergency classification level and remain in the TSC throughout a declared emergency. This change in the proposed emergency plan simply retains the Command and Control function in the TSC with the Site Emergency Director.

3.2.2 **[Potential RIE 1-2]** No EOF ORO Communicator Position

The proposed emergency plan does not provide an EOF Offsite Communicator minimum staff ERO position at the Site Area Emergency classification level for the Communications function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the ORO aspect of the Communications function from two (2) to one (1). This change deviates from the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee. These are typically located in the TSC. For an SAE ECL, or greater, at least 1 additional communicator should be staffed in the EOF.*

NUREG-0654 R2 guidance designates the Offsite Response Organization (ORO) (State/County) communication location as 'typically' in the TSC based on staggered activation of the emergency response facilities.

The NextEra TSCs and EOFs are activated at an Alert emergency classification level. By activating both the TSC and EOF at an Alert emergency classification level and maintaining the non-delegable tasks of classification, notification, and PARs in the TSC, the proposed emergency plan does not need to provide additional augmenting ERO positions to move those tasks between emergency response facilities.

An EOF State/County Communicator minimum staff ERO position is not needed at the Site Area Emergency classification level as the Communications function for the ORO remains in the TSC throughout a declared emergency. This change in the proposed emergency plan simply retains the Communications function for the ORO in the TSC.

3.2.3 **[Potential RIE 1-3]** No EOF NRC Communicator

The proposed emergency plan does not provide for an EOF NRC Communicator for the Communications function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the NRC aspect of the Communications function from two (2) to one (1). This change deviates from the current plan minimum staff ERO position requirement.

Deviation Justification: NUREG-0654 R2 Table B-1 states the 2nd NRC communicator should be staffed "As needed".

Use of the URI dose assessment model streamlines the dose assessment function and the EOF RP Coordinator is fully trained and available to assist if needed. The Dose Assessor can use a headset to be continuously available to answer NRC request for information on the HPN Line. If the event escalates to a level that would require additional capability additional personnel can be called to assist.

3.2.4 **[Potential RIE 1-4]** On-shift RP Personnel Allowed Collateral Duties

The proposed emergency plan allows collateral duty assignments to be given to radiation protection personnel when performing the Radiation Protection function. Specifically, this change allows radiation protection personnel to perform the Dose Assessment /Projections function and support other on-shift actions when not assigned a response activity. This change deviates from the NUREG-0654 R2 on-shift staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *The ability to provide radiological expertise when the plant is experiencing an event with serious radiological consequences is crucial, due to the unknown radiological environment faced by emergency workers, particularly at the onset of the event. This function should be staffed by 2 qualified RP staff members on-shift (or 1 per unit for multi-unit sites). These staff members should not have any collateral duties during emergency response.*

Consistent with NUREG-0654 R2, the proposed emergency plan assigns the Dose Assessments / Projections as a collateral duty. This emergency response collateral duty can be assigned to any on-shift individual qualified in Dose Assessment.

Personnel who are not ANSI qualified RPTs, such as an appropriately trained and qualified operator or a chemistry technician, may be assigned to the dedicated on-shift RPQI position. When the RPQI position is not filled by a qualified ANSI RPT, they cannot be given time sensitive or other tasks during emergency response that interfere with the Radiation Protection function.

3.2.5 **[Potential RIE 1-5]** Fewer OSC RP Response Personnel

The proposed emergency plan reduces the number and qualifications of minimum staff ERO positions for the Radiation Protection function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Radiation Protection function from six (6) in the current emergency plan and in NUREG-0654, to five (5) in the proposed emergency plan, consisting of three (3) RPTs and two (2) RP Qualified individuals that are task trained but not required to be ANSI equivalent RPTs. This change deviates from the current plan requirement and NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *While not all Alert ECLs (or lower) have radiological consequences, licensees should develop their ERO staffing plans for a worst-case scenario from a radiological risk perspective, i.e., an event which results in the immediate (within 60-minutes) loss of 2 or more fission product barriers leading to significant and unknown radiological conditions. The augmentation (support) of this position should occur in two stages: within 60 minutes of an Alert ECL or greater, 3 additional qualified RP staff should be available, and within 90 minutes of an Alert ECL, or greater, an additional 3 additional qualified RP staff should be available, and both are typically staffed in the OSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Personnel assigned to perform this function should be fully qualified HP technicians as described in ANSI/ANS-3.1-1993, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants," that was approved for use by Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants."14 Personnel who are typically trained to a level of "meter qualified" to perform basic HP duties are not trained or do not have the necessary experience to perform complex HP duties, as discussed in HPPOS-0238, that would be necessary in a radiological emergency. For example:*
>
> *(1) Typically the training does not include providing HP coverage for other personnel.*
>
> *(2) Radiation protection is not normally incorporated into normal job duties.*
>
> *(3) Radiological conditions during an emergency may be unknown or rapidly changing.*
>
> *The following emergency plan functions would constitute in-plant protective actions, which would require a fully qualified HP technician:*
>
> - *Provide guidance for personnel protection to assist in minimizing personnel exposure.*
> - *Provide guidance for exposure authorizations, dose guidelines, and post-exposure assessments.*
> - *Provide job coverage for in-plant repair and corrective actions, and operations support, under changing radiological conditions.*
> - *Provide guidance for emergency decontamination of personnel, equipment, and facilities.*
> - *Provide guidance for personnel contamination control and respiratory protection.*

NUREG-0654 R1 lists the RPT functions assigned to the six augmenting OSC RPTs as:

- In-Plant Surveys
- HP coverage for repair, corrective actions, search, and rescue first aid & firefighting
- Personnel Monitoring
- Dosimetry
- Access Control

These functions have been reworded but remain similar in NUREG-0654 R2 as:

- Provide in-plant surveys
- Provide radiation protection coverage for responders accessing unknown radiological environments during emergency conditions
- Control dosimetry and control area access

The number of augmenting RPTs for the above functions in NUREG-0654 R2 Table B-1 has not changed from the number in NUREG-0654 R1 Table B-1.

The following guidance documents were considered in the staffing of augmenting ERO radiation protection personnel in the common emergency plan:

- Per RIS 2016-10, the licensee could show that the basis for the justification includes the availability of installed area, process, airborne and effluent radiation monitors, automated systems and information technology solutions, and enhanced work processes that would be available under accident conditions. Supporting tools and processes that may be considered include portal monitors, self-alarming dosimeters, and automated access control system for the radiologically controlled area (RCA) that maintain active radiation work permits, which are readily available if an emergency is declared (e.g., the system verifies qualifications, dose margins, and access requirements).
- Per HPPOS-238, Health Physics Technicians (HPTs) may independently perform specific tasks or job assignments if they meet the required prerequisites and complete the required task qualifications of their plant training programs. There are certain tasks and job assignments, however, that require in-depth knowledge and can only be performed by fully qualified ANSI technicians.

NextEra controls the qualification of the ERO as outlined in 10 CFR 50.47(b)(15). To ensure that qualifications are consistent throughout the fleet, the RPQI qualification requirements are maintained in Section O of the proposed emergency plan. The RPQI ERO personnel will be task qualified to the tasks listed in NUREG-0654 Revision 2 Table B-2 (shown above)

This approach meets the intent of 50.47(b)(15) and allows the Systematic Approach to Training (SAT) process to determine and control the RPQI qualification requirements by task. The proposed emergency plan will utilize the SAT process to set the qualification requirements of the RPQI, independent of an ANSI 8.1 standard, while ensuring that all personnel are trained to be able to respond to an emergency – not to be a day-to-day RPT.

Per NUREG-0713, Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities 2004 and Draft Tables and Figures for 2020 NUREG-0713, the Average Measurable TEDE per individual has decreased from 0.31 rem (1995) to 0.09 rem (2020). Advances in technology in access control, electronic dosimetry (personnel monitoring and remote monitoring), pre-developed RWPs (for normal and for emergency conditions), and ARM/PRM plant computer information display systems reduce radiation protection personnel involvement in radiological activities and have contributed to the decrease.

- Dosimetry and access control is established using technological means to ensure that personnel wear the correct dosimetry into the radiological controlled area and are signed onto the RWP (affirming that they have read and understand the RWP). Telemetry with field communications and dosimetry can provide the RP personnel all data that one would have previously needed equipment and multiple personnel to perform.
- On-shift and augmented ERO radiation protection coverage is monitored and provided by radiation protection personnel. The radiation protection personnel ensure that dispatched personnel are provided real time information on radiological conditions when deployed and if conditions change at the work location. In-plant radiological conditions are provided using technology available to the radiation protection personnel on the plant computer information display systems.

As this technology has become more integrated at NextEra sites and throughout the industry for normal and outage operations their use has become common-place. As such, radiation protection personnel that are properly trained on the technology outlined here are proficient with their use in emergency response functions. These enhancements would be used during a radiological emergency.

The OSC utilizes the day-to-day "Fix-It-Now" (FIN) Team concept, which includes radiation protection support as necessary. OSC minimum staffing requires 3 craft personnel. An RPT would monitor plant conditions remotely and assist the Lead OSC Supervisor with RP oversight activities while the other RP personnel (RPTs and RPQIs) could be tasked with providing coverage for craft personnel if a team is dispatched into a radiologically controlled area.

All NextEra sites are Pressurized Water Reactor (PWR) designs. There are fewer radiologically controlled areas at PWRs than at Boiling Water Reactor (BWR), which allows for less RP support staff during normal operations. Per Draft Tables and Figures for 2020 NUREG-0713, the Average Collective Dose per Reactor in 2020 is 31 person-rem at PWRs and 95 person-rem at BWRs. Even with a SG tube rupture using the main condenser as the cooldown medium, the turbine buildings will not be unmanageable with the responders as the major steps of each site's emergency operating procedures for a SG tube rupture will have completed their major functions of "identify – isolate – cooldown – depressurize – terminate safety injection" are expected to be complete prior to ERO arrival. All temperature control steps later in the procedures where the ERO may be present will be minimal temperature control steps which send minimal additional contaminated steam into the secondary systems. As the limiting accident that will expand radioactively controlled/ contaminated areas outside of the radiologically controlled area, there is no need to staff PWR sites at the same level outlined in the NUREG, which factored in BWR designs into their calculations for staffing levels.

The above statements support the position that Radiation Protection function can be performed by the four augmentation radiation protection personnel ERO positions.

3.2.6 [**Potential RIE 1-6**] No On-site Field Monitoring Team

The proposed emergency plan does not staff the onsite field monitoring minimum staff ERO positions for the Field Monitoring Teams function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the onsite field monitoring aspect of the Field Monitoring Teams function from two (2) to zero (0). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *The ability to locate, monitor, and track a radioactive plume is important to ensure appropriate protective measures are taken in response to a radiological event. The ability to staff these teams before they may be needed (i.e., before a radiological*

release) greatly enhances the ability of the licensee to provide timely and accurate PARs.

- *An onsite FMT should be staffed, consisting of a monitor and a driver. This onsite FMT is responsible for radiological monitoring of the site's Protected Area. …*
  - *i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.*
  - *iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.*

NUREG-0654 R2 Table B-1 guidance for augmenting Field Monitoring Team staffing has not changed from NUREG-0654 R1 (six total personnel) despite the technology (equipment and communications) and process advancements in the last 40+ years.

NUREG-0654 R2 designates one on-site (including inside of the Protected Area) Field Monitoring Team and one off-site Field Monitoring Team responding in 60 minutes to be ready to respond to a radiological release or to detect the radiation in the field thus confirming and quantifying a release. A second off-site Field Monitoring Team responding in 90 minutes is added to back up the first off-site Field Monitoring Team.

<u>On-site Field Monitoring Team Driver ERO Position</u>

On-site survey and sampling activities are performed without a vehicle since the site Protected Area boundaries are relatively small and plume tracking is not applicable. The Protected Area can be easily and efficiently traversed on foot or in a utility vehicle. The survey equipment is portable and does not require two individuals for transport or operation. Thus, there is no need for an on-site Field Monitoring Team Driver.

<u>On-site Field Monitoring Team Technician ERO Position</u>

The current emergency plan utilizes two Field Monitoring Teams, primarily assigned to monitor conditions outside the Protected Area. NextEra typically uses an individual from the pool of OSC radiation protection personnel to perform on-site out-of-plant (inside the Protected Area) surveys if needed. However, one of the two Field Monitoring Teams may be call upon to enter the Protected Area to perform surveys when OSC radiation protection personnel are assigned other tasks.

For NextEra stations, two Field Monitoring Teams are sufficient to perform on-site and off-site field monitoring activities. All NextEra sites are located on major bodies of water (their EPZs being approximately 40% water or greater) with no requirements nor capabilities for monitoring activities on these bodies of water. As each site's EPZ is ~40+% water, there is not as much area to cover for the field monitoring teams. With NextEra EPZs being effectively smaller than landlocked sites, less personnel are needed to cover an effectively smaller EPZ.

Additionally, the NUREG-0654 R2 technical basis for the ERO staffing guidance includes the following clarification:

The onsite FMT should not be staffed if the radiological conditions jeopardize the safety of the FMT, typically after a Site Area Emergency has been declared.

Based upon NRC guidance two Field Monitoring Teams are sufficient to monitor radiological conditions after a SAE is declared. By not designating onsite and offsite FMTs, a total of two FMTs can sufficiently provide radiological monitoring at NextEra stations under all conditions.

3.2.7 **[Potential RIE 1-7]** No OSC RP Supervisor Position

The proposed emergency plan does not assign an OSC RP Supervisor minimum staff ERO position to the Supervision of Repair Team Activities function. This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *An … RP Supervisor should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the craft [personnel] resources for the additional 30-minutes prior to the [supervisory] respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).*

The Lead OSC Supervisor is assigned the RP aspect of the Supervision of Repair Team Activities. To ensure that Lead OSC Supervisor position can perform the RP supervision sub-function, their ERO training / qualification program will include previous RP Supervisor experience or will receive training to supervise RP emergency response tasks. See Section O of the proposed emergency plan for the description of the qualification of the Lead OSC Supervisor.

OSC radiation protection personnel responding to the event will report to the Lead OSC Supervisor. With 3 RPTs and 2 RPQIs responding, an RPT can assist the Lead OSC Supervisor and FIN Supervisor with coordination of RP activities needed to dispatch OSC teams, thus not overburdening the Lead OSC Supervisor. If there is a particular question for RP supervision, the TSC RP Coordinator would also be available to answer or coordinate a response to questions.

3.2.8 **[Potential RIE 1-8]** Single Craft Supervisor Position

The proposed emergency plan does not assign OSC maintenance supervisors for each craft. Specifically, this change reduces the number of OSC craft supervisor minimum staff ERO positions used for the Supervision of Repair Team Activities function from three (3) to one (1). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *An Electrical Supervisor, a Mechanical Supervisor, an I&C Supervisor … should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the craft [personnel] resources for the additional 30-minutes prior to the [supervisory] respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).*

The FIN Supervisor fills the supervisor role for mechanical, electrical and I&C craft disciplines. This is a deviation from NUREG-0654 R2 guidance which only discusses combining Electrical and I&C supervisory roles.

The normal station maintenance organization allows for the management of craft personnel under a single supervisor hierarchy. The position of FIN Supervisor is filled by management and supervisory personnel from the Maintenance Department who are familiar with direction of all disciplines within the department. OSC performance under this organizational structure has been demonstrated in numerous evaluated exercises and remains consistent with the acceptable OSC staffing hierarchy of the current emergency plan.

3.2.9 **[Potential RIE 1-9]** No IT Technician ERO Positions

The proposed emergency plan does not assign IT Technicians in the TSC and EOF/JIC. Specifically, this change reduces the number of IT Technicians minimum staff ERO positions used for the Information Technology function from two (2) to zero (0). This change deviates from the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *Advances in technology have led to significant enhancements in many areas of emergency response, such as communications, monitoring, displays, digital procedures, etc. Licensees should consider the use of this technology whenever it enhances their ability to protect the health and safety of the public. However, if the implementation of the emergency plan is so reliant on this technology that without it, the emergency plan could not be implemented, then an IT Lead should augment (support) the response within 60-minutes of an Alert ECL, or greater, if the TSC/OSC has this technology; and within 60-minutes of an SAE ECL, or greater, if the EOF or JIC/JIS has this technology. If the licensee has capable backup plans for if/when this technology fails, then this function is not necessary. In other words, if the ERO is reliant upon technology such that its loss would prevent the ERO from functioning, then a support position should be part of the ERO to assist in recovery of this technology. If the loss of this technology would lead to the implementation of backup strategies, then this position would not need to be part of the ERO and can be called upon as-needed. Licensees should consider using the listing of critical digital assets, identified in accordance with 10 CFR 73.54, as the basis for determining if this position should be considered part of the EROs augmented response.*

Per NUREG-0654 R2, minimum staff ERO IT positions are only required to be described in the emergency plan if critical digital assets (CDAs) are identified per 10 CFR 73.54, Protection of digital computer and communication systems and networks. The proposed emergency plan relies on PI ProcessBook for monitoring plant parameters, which has been determined to be a CDA. The IT process for addressing issues with CDAs operates full time outside the emergency plan on a 24/7 basis. Additionally, NextEra maintains an IT Help Desk 24 hours per day, 7 days a week. Many computer issues are addressed remotely with an IT specialist through the Help Desk.

Each of the EP related digital assets were evaluated as part of implementation of the Cyber Security Rule, 10 CFR 73.54(b). Under NEI 13-10, "Cyber Security Control Assessments," EP Critical Digital Assets have been assessed and controls have been put in place to protect the assets against cyber-attack. In conjunction with these controls, alternate administrative, non-digital, or adequately independent means have been put in place for performing each EP function, should the digital component or program fail.

Performance of digital equipment used by EP has shown to be acceptable during drills and exercises, and through routine inventory and surveillance checks. Performance of digital assets is monitored through either the Corrective Action Program (CAP) or the drill and exercise critique process. Performance trends are monitored, corrective actions are issued, and compensatory measures are taken as necessary.

With the IT department process for 24/7 coverage and built-in redundancy for communication systems and digital EP assets, NextEra has identified that there is no need to maintain an IT Technicians as minimum staff ERO positions.

3.3 ERO Augmentation Analysis

The ERO augmentation analysis compares and evaluates the current emergency plan on-shift and minimum staff ERO positions against those in the proposed emergency plan and in NUREG-0654 R2 guidance. Augmentation deviations in the proposed emergency plan from the current emergency plan and NUREG-0654 R2 are categorized as potential RIEs and evaluated to determine whether the timeliness to perform the function is sustained without overburden of the on-shift staff.

Refer to Attachment 1, ERO Staffing Plan Comparison Table, for a side-by-side summary staffing and augmentation comparison between NUREG-0654 R2 Table B-1, the current emergency plan, and the proposed emergency plan.

NUREG-0654 R2 establishes 60 and 90-minute minimum staff ERO augmentation time requirements for the TSC and OSC positions at the Alert emergency classification level; and a 60-minute minimum staff ERO augmentation time requirement for the EOF at the Site Area Emergency classification level.

The current PBN emergency plan follows a 30 / 60-minute augmentation scheme as approved by the NRC in 1981 with the following main elements:

- All ERO personnel are notified at the Unusual Event emergency classification level (response to facilities is elective for the Shift Manager), and called out to respond to their assigned facility at the Alert emergency classification level.
- The TSC and OSC are required to be activated at the Alert emergency classification level.
- The EOF is required to be activated at the Site Area Emergency classification level.
- The JIC is activated as soon as possible at an Alert or higher emergency classification level when determined appropriate with the offsite agencies, and whenever the EOF is activated.

The proposed emergency plan follows a 60 and 90-minute augmentation scheme with the following main elements:

- All ERO personnel are notified at the Unusual Event emergency classification level (response to facilities is elective for the Shift Manager), and called out to respond to their assigned facility at the Alert emergency classification level.
- The TSC, OSC, and EOF are activated at the Alert emergency classification level.
- NextEra implements JIS practices that are capable of performing the media information function at all emergency classification levels.
- The near-site JIC is activated when determined appropriate with the offsite agencies (at an Alert or higher emergency classification level).

The ERO augmentation analysis concludes that the differences in times between the proposed common emergency plan 60 and 90 minute response criteria and the NUREG-0654 R2 60 and 90 minute response criteria does not adversely delay turnover of responsibilities or negatively impact/overburden the ability of the on-shift personnel to perform operational actions or key functions. This alternate staffing approach continues to maintain initial facility accident response in all key functional areas at all times and provides timely augmentation of response capabilities.

3.3.1 **[Potential RIE 2-1]** Site Emergency Director at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time for the Site Emergency Director minimum staff ERO position that performs the Command and Control function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *This function is typically assigned to the Operations Shift Manager (OSM). The augmentation (relief) of this position is intended to relieve the OSM of EP functions so that the OSM can focus on the event response from an operations perspective. This should occur within 60-minutes of an Alert ECL declaration, or greater, and is typically a position staffed within the TSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Per the guidance in NUREG-0654, Table B-1, an augmented "Senior Manager" should fulfill the "Emergency Operations Facility Director" major task at 60 minutes. A licensee requesting a change in staff augmentation requirements that would have the lead manager unavailable to assume command and control within 60 minutes of the initial emergency declaration should show that the on-shift staff includes enough qualified supervision such that one supervisor will assume the emergency director role. The licensee should show that the on-shift supervisor performing the manager actions will not have any additional duties (e.g., each unit under the direction of a unit supervisor, a shift manager providing oversight of the plant response, and a designated emergency director responsible for emergency plan implementation).*

The Shift Manager is given overall command and control with regard to ERO response activities. The position is used to perform Emergency Classification Level (ECL) determinations and develop Protective Action Recommendations (PARs), and to direct or perform ORO notification.

Historically, actual events have resulted in single ECL declarations with no further escalation. Realistic event progression that challenges multiple fission product barriers is relatively slow as demonstrated by the events at TMI and Fukushima. In this case, immediate plant operations and ERO response actions occur with 60 minutes of actual events and the on-shift staff are not burdened (tested) with multiple classifications.

Planning for a wide range of events, including rapidly progressing severe accidents (RPSA) is also required. These "fast breaker" events rise to the SAE or GE classification level without progressing through the lower ECLs. In this case, immediate plant operations and ERO response actions occur with 60 minutes of the RPSA scenario and the on-shift staff are not burdened (tested) with multiple classifications.

Event scenarios that do required escalation of the ECL prior to ERO augmentation are included in drills and exercises for the on-shift ERO. Technology and process enhancements including communications (ERNIE), ERDS, EAL matrix, PAR flowchart, etc. have reduced the time and attention it takes to perform tasks along with enhancing the effectiveness and efficiency of task performance. In addition, NUREG-0654 R2 has added a Classification Advisor position to assist and work in coordination with the Shift Manager, which NextEra has included as a collateral duty in the on-shift complement.

All Initiating Conditions (ICs) need to be demonstrated within the 8-year cycle. All Unusual Event and Alert level ICs are preformed from the Control Room. Thus, the opportunities for the Shift Manager to demonstrate the ability to perform emergency and operations responsibilities are provided multiple times over the 8-year cycle.

The demonstration and evaluation of the Shift Manager to perform their emergency plan functions is continuously evaluated during emergency planning drills/exercises and operations training simulator sessions. Various scenarios are used to evaluate the Shift Manager's ability to perform the following emergency planning functions, technical specification responsibilities and operations oversight.

Operations training simulator sessions test and evaluate the Shift Manager's ability to effectively and efficiently perform all required functions / responsibilities until the event is stabilized (session is complete); this in some circumstances is greater than the 90 minutes ERO response time. Note – there is no minimum required length of time for the training sessions.

Licensed Operator Continuing (LOR) training periodically has scenarios that extend to 90 minutes without augmented ERO involvement. For example, a training scenario is performed on a periodic basis to ensure that a FLEX Beyond Design Basis External Event can be mitigated by the minimum on-shift staff. The FLEX scenario assumes that the ERO will not be on site to provide support for a minimum of 6 hours. While this is covered under 10 CFR 50.155 and not Appendix E, the example is given as a major event where augmented ERO response is not provided while the site compliment is under heavy demand for action to mitigate the event.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for at least 90 minutes. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Command and Control function out to 120 minutes.

The Site Emergency Director 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the Command and Control function.

3.3.2 **[Potential RIE 2-2]** Classification Advisor at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC Classification Advisor minimum staff ERO position that performs the Emergency Classifications function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC.*

Maintaining the ability to perform this function at all times ensures that ECL decisions, and as applicable, the PAR decisions, are timely and accurate as these decisions have a direct relationship to public health and safety from the consequences of a radiological event. This function shall work in coordination with the OSM, or Emergency Coordinator, depending on which position is in command and control, and as a result should be available on shift and in the TSC.

The on-shift Classification Advisor is given a limited role with regard to ERO response activities. The position is used to second check Emergency Classification Level (ECL) determinations and Protective Action Recommendations (PARs) developed by the Shift Manager, and to support ORO notification information accuracy. The on-shift Classification Advisor has received training to perform their assigned EP functions and assist the Shift Manager with emergency responsibilities.

Historically, actual events have resulted in single ECL declarations with no further escalation. Realistic event progression that challenges multiple fission product barriers is relatively slow as demonstrated by the events at TMI and Fukushima. In this case, immediate plant operations and ERO response actions occur with 60 minutes of actual events and the on-shift staff are not burdened (tested) with multiple classifications.

Planning for a wide range of events, including rapidly progressing severe accidents (RPSA) is also required. These “fast breaker” events rise to the SAE or GE classification level without progressing through the lower ECLs. In this case, immediate plant operations and ERO response actions occur with 60 minutes of the RPSA scenario and the on-shift staff are not burdened (tested) with multiple classifications.

Event scenarios that do required escalation of the ECL prior to ERO augmentation are included in drills and exercises for the on-shift ERO. Technology, process and procedure enhancements to classification, notification and PAR development (such as Emergency Response Notification for Incidents and Events (ERNIE), ERDS, EAL matrix, PAR flowcharts, etc.) have simplified response activities and enhanced the effectiveness and efficiency of task performance. The on-shift Classification Advisor position’s ability to perform second checks specifically benefits from these advancements such that continuation of their ERO related tasks from 60 to 90 minutes is not a burden.

All Initiating Conditions (ICs) need to be demonstrated within the 8-year cycle. All Unusual Event and Alert level ICs are preformed from the Control Room. Thus, the opportunities for the on-shift Classification Advisor to demonstrate the ability to perform emergency and operations responsibilities are provided multiple times over the 8-year cycle.

The demonstration and evaluation of the on-shift Classification Advisor to perform their emergency plan functions is continuously evaluated during emergency planning drills/exercises and operations training simulator sessions. Various scenarios are used to evaluate the on-shift Classification Advisor’s ability to perform the following emergency planning functions, technical specification responsibilities and operations oversight.

Operations training simulator sessions test and evaluate the on-shift Classification Advisor’s ability to effectively and efficiently perform all required functions / responsibilities until the event is stabilized (session is complete); this in some circumstances is greater than the 90 minutes ERO response time. Note – there is no minimum required length of time for the training sessions.

Licensed Operator Continuing (LOR) training periodically has scenarios that extend to 90 minutes without augmented ERO involvement. For example, a training scenario is performed on a periodic basis to ensure that a FLEX Beyond Design Basis External Event can be mitigated by the minimum on-shift staff. The FLEX scenario assumes that the ERO will not be on site to provide support for a minimum of 6 hours. While this is covered under 10 CFR 50.155 and not Appendix E, the example is given as a major event where augmented ERO response is not provided while the site compliment is under heavy demand for action to mitigate the event.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for at least 90 minutes. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Emergency Classifications function out to 120 minutes.

Establishing the 90-minute augmentation requirement for the TSC Classification Advisor minimum staff ERO position does not impact the capability or timeliness to perform the Emergency Classifications function or overburden the on-shift position.

3.3.3 **[Potential RIE 2-3]** ORO Communicator at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC ORO Communicator minimum staff ERO position that performs the State/County notifications aspect of the Communications function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this position should occur within 60-minutes of an Alert ECL, or greater, and is intended to relieve the on-shift staff of this EP function. This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *To adequately support the elimination or extension of the two 60-minute responders, the licensee should show that two on-shift positions are identified to fill the 60-minute responder's role to "Notify licensee, State, local and Federal personnel [and] maintain communication." The licensee should show that these positions are not assigned other tasks that may prevent the timely performance of their assigned notification or communication functions, as specified in the emergency plan. The licensee should discuss how communication technologies employed by the proposed on-shift staff will support timely, effective, and reliable notifications. Additionally, the communications technologies should be referenced in the emergency plan to ensure that future changes are reviewed using the RG 1.219 change process, as they were used as the basis for the proposed change.*

Technology advancements of Emergency Response Notification for Incidents and Events (ERNIE) allows a streamlined process for ERO notification and ORO notification. Specifically, the technology advancements have enhanced initial notification to the ORO by using an electronic system that contacts the ORO warning points and emergency management staff via email, text and verbal computer-generated voice communications, thus eliminating the need for a communicator to perform the verbal portion of the initial notification.

ORO activation occurs from the site's warning points based upon the initial notification form information. The forms are negotiated and approved with OROs to provide information needed to make initial response decisions. As such, there should be minimal need for OROs to request additional information from the site Communicators. ERNIE provides the site with validation that the information has been received by the OROs.

If any the OROs need additional information prior to ERO activation (90 minutes), the NextEra control rooms are equipped with speaker and/or headset phones which aid the in the performance of the communication function. The technical advancement allows personnel to perform the communication task without negatively impacting the performance of other emergency plan or operations responsibilities.

NextEra has added a drill/ exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for 90 minutes as a verification that the shift can perform their function with no assistance. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the NRC notifications aspect of the Communications function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the State/County notifications aspect of the Communications function. The OROs concur with the NextEra Common Emergency Plan changes including the 90-minute ERO augmentation (refer to Enclosure 10).

3.3.4 **[Potential RIE 2-4]** ENS Communicator at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC ENS Communicator minimum staff ERO position that performs the NRC notifications aspect of the Communications function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this position should occur within 60-minutes of an Alert ECL, or greater, and is intended to relieve the on-shift staff of this EP function. This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *To adequately support the elimination or extension of the two 60-minute responders, the licensee should show that two on-shift positions are identified to fill the 60-minute responder's role to "Notify licensee, State, local and Federal personnel [and] maintain communication." The licensee should show that these positions are not assigned other tasks that may prevent the timely performance of their assigned notification or communication functions, as specified in the emergency plan. The licensee should discuss how communication technologies employed by the proposed on-shift staff will support timely, effective, and reliable notifications. Additionally, the communications technologies should be referenced in the emergency plan to ensure that future changes are reviewed using the RG 1.219 change process, as they were used as the basis for the proposed change.*

Technology advancements using continuous live ERDS transmission and Emergency Response Notification for Incidents and Events (ERNIE) allows a streamlined process for NRC notification. Specifically, the technology advancements have enhanced the NRC Headquarters Operations Office (HOO) initial notification by using an electronic system that contacts the HOO.

The shift communicator is able to communicate immediately, not to exceed 1 hour, with the NRC HOO to provide real time information and an open line if desired. The NextEra control rooms are equipped with speaker and/or headset phones which aid the shift communicator in the performance of the communication function. The technical advancement allows personnel to perform the communication task without negatively impacting the performance of other emergency plan or operations responsibilities.

This technology allows for a single communicator to perform as the NRC communicator and have collateral duties throughout the additional 30 minutes until relieved by the TSC ENS Communicator.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for 90 minutes as a verification that the shift can perform their function with no assistance. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the NRC notifications aspect of the Communications function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the NRC notifications aspect of the Communications function.

3.3.5 **[Potential RIE 2-5]** TSC RP Coordinator at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC RP Coordinator minimum staff ERO position that performs the Supervision of Radiation Protection Staff and Site Radiation Protection function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *This function is important for effective emergency response to a radiological event because the management of RP resources, and the assistance this position provides the Emergency Coordinator, is crucial for response to radiological events. Radiological events can be very significant and constantly evolving, and require significant expertise in radiation and radiological consequences. The evaluation of radiological events, and the development of effective protective action recommendations, requires this expertise to support the Emergency Coordinator in making these decisions. This position is also responsible for the direction and protection of FMTs. The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC.*

The TSC Radiation Protection Coordinator relieves the Shift Manager of the Supervision of Radiation Protection Staff and Site Radiation Protection function.

On-shift radiation protection personnel respond to abnormal radiological conditions, including Area Radiation Monitor and Process Radiation Monitor alarms, in accordance with RP procedures and report their actions and information to the Shift Manager, with little or no required supervision. Other on-shift radiation protection personnel emergency functions/responsibilities are performed without the need for direct supervision of the Shift Manager.

Technology and process enhancements in radiation protection including dosimetry and personnel monitoring have reduced the on-shift RP task burden by allowing operations and other non-RP shift personnel to perform most activities without the need for dedicated RP coverage. Thus, the need for the Shift Manager to coordinate RP coverage activities is significantly reduced.

The 90-minute response for OSC maintenance and radiation protection personnel credits the enhancement of the NextEra FLEX equipment and strategies. By accounting for FLEX equipment and strategies that eliminate or prolong the onset of core damage and any radiological release of activity the RP challenges are simplified and the need for a 60 minute radiation protection personnel response, and thus a 60 minute Radiation Protection Supervision response is diminished. Coordination of RP supervision response time with full TSC and OSC augmentation provides for a less complicated transition of responsibilities.

NextEra has added a drill/ exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for 90 minutes as a verification that the shift can perform their function with no assistance. This includes the Shift Manager directing and supervising RP functions and activities.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Supervision of Radiation Protection Staff and Site Radiation Protection function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the Supervision of Radiation Protection Staff and Site Radiation Protection function.

3.3.6 **[Potential RIE 2-6]** Radiation Protection Personnel at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the radiation protection personnel minimum staff ERO positions that perform the Radiation Protection function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for augmenting radiation protection personnel states that:

> *While not all Alert ECLs (or lower) have radiological consequences, licensees should develop their ERO staffing plans for a worst-case scenario from a radiological risk perspective, i.e., an event which results in the immediate (within 60-minutes) loss of 2 or more fission product barriers leading to significant and unknown radiological conditions. The augmentation (support) of this position should occur in two stages: within 60 minutes of an Alert ECL or greater, 3 additional qualified RP staff should be available, and within 90 minutes of an Alert ECL, or greater, an additional 3 additional qualified RP staff should be available, and both are typically staffed in the OSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Radiation protection personnel perform multiple roles during normal and emergency plant operations. These roles include access control, personnel monitoring, and dosimetry, in addition to HP coverage for repair and corrective actions, search and rescue, first aid, and firefighting during emergency response operations. Per the guidance in Table B-1 of NUREG-0654, there should be two augmented responders at 60 minutes for the major task of "Radiation Protection." To adequately support an extension in response timing of the two radiation protection 60-minute responders to 90 minutes, the licensee should show that the on-shift HP staffing includes as a minimum, four HP technicians in total for the site. The extra HP technicians are needed for in-plant protective actions for the other personnel added to the on-shift staffing to compensate for the extension in augmentation time, and to assess any off-site releases of radioactive materials. Additionally, the licensee request should demonstrate that on-shift HP technicians will be relieved of the need to perform access control, personnel monitoring, and dosimetry-related tasks, thereby freeing these personnel to cover vital response activities (e.g., HP coverage for repair and corrective actions, search and rescue, first aid, and firefighting). NRC staff will consider whether the basis for the justification includes the availability of installed area, process, airborne and effluent radiation monitors, automated systems and information technology solutions, and enhanced work processes. The licensee should include supporting tools and processes that will be considered such as portal monitors, self-alarming dosimeters, and automated access control systems for the RCA that maintain active radiation work permits that are readily available if an emergency is declared (e.g., the system verifies qualifications, dose margins, and access requirement).*

Three (3) RP Technician and two (2) RP Qualified Individual 90-minute minimum staff ERO positions report to the Lead OSC Supervisor and provides radiation protection support.

Through equipment, process, and training enhancements the on-shift staff can initially respond to Design Basis and Beyond Design Basis (BDB) events without the support of an augmented ERO. As codified by 10 CFR 50.155, NextEra FLEX equipment provides the on-shift staff with additional resources when installed plant equipment is lost or damaged. Generally, FLEX provides portable backup equipment onsite that can be used to supplement or replace installed plant equipment in maintaining long-term core cooling, spent fuel cooling, and containment integrity. Movement of FLEX equipment, including installation into plant systems and its operations (electrical, fluid, etc.) is performed by on-shift personnel.

Due to the availability of FLEX equipment, NextEra stations have diverse protection against loss of ECCS capability and other systems, which provides a basis for determination that no immediate ECCS repair and corrective actions are likely necessary for on-shift personnel prior to augmentation of maintenance personnel. The FLEX/BDB process and equipment, and the operating emergency procedures (EOP, AOP, etc.) are designed to be implemented with the minimum shift staff. By accounting for FLEX equipment and strategies that eliminate or prolong the onset of core damage and any radiological release of activity the RP challenges are simplified and the need for a 60 minute radiation protection personnel response is diminished.

The NEI 12-01 based staffing analysis performed for using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Radiation Protection function out to 6 hours for design basis and other ER related events.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Radiation Protection function out to 120 minutes for design basis and other ER related events.

3.3.7 **[Potential RIE 2-7]** Both Offsite FMTs at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the FMT Technician/FMT Driver minimum staff ERO positions that perform the offsite field monitoring aspect of the Field Monitoring Teams function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

- *An offsite FMT should be staffed, consisting of a monitor and a driver. This offsite FMT is responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples as necessary (air, water, vegetation, etc.). This team should be staffed within 60-minutes of an Alert ECL, or greater, in order to be ready to respond to a radiological release, or to detect radiation in the field thus confirming and quantifying the release. This supports the applicable PAR decision-makers in developing effective PARs.*

  i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

  iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.

- *Another offsite FMT should be staffed, consisting of a monitor and a driver. This offsite FMT is also responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples (air, water, vegetation, etc.). This team should be staffed within 90-minutes of an Alert ECL, or greater, in order to be ready to respond to a radiological release, or to detect radiation in the field thus confirming and quantifying the release. This supports the applicable PAR decision-makers in developing effective PARs. An additional 30-minutes in response is acceptable in that this second FMT is a backup to the first FMT, and while both FMTs are expected to respond to an event to better coordinate radioactive plume tracking action(s), allowing for an additional 30-minutes provides licensees some flexibility in staffing this ERO function without compromising the reasonable assurance finding in accordance with 10 CFR 50.47(a).*

  i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

  iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Per the guidance of NUREG-0654, Table B-1, there should be four augmented responders at 60 minutes—two for off-site surveys, one for on-site surveys, and one for in-plant surveys. To adequately support an extension of these responders to 90 minutes, the licensee should show that the on-shift HP staffing includes a minimum of four HP technicians in total for the site. The licensee should demonstrate that two HP technicians, in excess of the number evaluated previously for extending the 30-minute responders, are available for in-plant protective actions for the other maintenance personnel that need to be added to the on-shift staffing to compensate for the extension in augmentation time for the major task of "Repair and Corrective Actions," and to perform surveys to assess any off-site release of radioactive materials.*

NextEra off-site Field Monitoring Team augmentation is 90 minutes for both teams versus one team at 60 minutes and one team at 90 minutes.

FLEX equipment and strategies eliminate or prolong the onset of core damage and any radiological release of activity, and thus simplify the RP challenges and diminish the need for a 60 minute Field Monitoring Team response.

The 60 minute response basis for the first off-site Field Monitoring Team is to be ready to respond to a radiological release, or to detect radiation in the field for any ECL at an Alert or above. NextEra provides dedicated vehicles and equipment to facilitate the rapid deployment of personnel upon their arrival.

- Vehicles are maintained and fueled such that the Field Monitoring Team Driver is only required to perform a quick walk-around safety check before operating.
- Equipment/supply kit inventories are administratively maintained so that Field Monitoring Team personnel are not required to verify contents or perform lengthy equipment checks.
- Vehicles and equipment are stored together in a location that facilitates rapid deployment outside the Protected Area.

- Initial Field Monitoring Team deployment strategy locates personnel in downwind areas near the site boundary prior to a release that promptly supports EAL identification and PAR determination.

This pre-staging and readiness of Field Monitoring Team resources significantly reduces the time it takes personnel to be ready to respond to and identify a radiological release, thus also facilitating a 90 versus 60 minute augmentation response time.

3.3.8 **[Potential RIE 2-8]** OSC Supervisors at 90 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Lead OSC Supervisor and FIN Supervisor minimum staff ERO position that performs the Supervision of Repair Team Activities function. This change deviates from the current emergency plan 60-minute ERO response time requirement for the Lead OSC Supervisor, Operations Supervisor and Electrical/I&C OSC Supervisor, and the NUREG-0654 R2 60-minute ERO response time guidance for the Lead OSC Supervisor.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *An Electrical Supervisor, a Mechanical Supervisor, an I&C Supervisor, and an RP Supervisor should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the maintenance resources for the additional 30-minutes prior to the specific craft (mechanical, electrical, or I&C) respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).*

Operations staff are currently trained with basic troubleshooting skills for support of all EOP and abnormal response procedure actions. Supervision of these actions are performed by the Shift Manager and Unit Supervisors regardless of augmented ERO staffing. There is no need for the ERO to relieve the shift of this responsibility.

The Flex/B.5.b process and equipment, and the operating emergency procedures (EOP, AOP, etc.), are designed to be implemented by the minimum on-shift staff. Through technological and process enhancements, the on-shift staff can cope with an event (Design Basis and Beyond Design Basis) initially without an ERO as analyzed in detail for other non-EP regulatory requirements. With FLEX/B.5.b processes and equipment codified by 10 CFR 50.155 into plant response procedures, on-shift personnel have the capability for mitigating core damage from design or beyond design basis events.

Based on this, OSC personnel are used primarily for repair activities, with operations personnel focus on mitigating activities per the EOPs and other event procedures.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Supervision of Repair Team Activities function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the Supervision of Repair Team Activities function.

3.3.9 **[Potential RIE 2-9]** OSC Craft at 90 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Mechanic and Electrician craft minimum staff ERO positions that perform the Repair Team Activities function. This change deviates from the current emergency plan 60-minute ERO response time requirements and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *… a minimum number of maintenance personnel should respond to an event as part of the ERO, with more personnel available on an as-needed basis depending on the event. The augmentation (support) of the electrician and mechanic positions should occur within 60-minutes of an Alert ECL, (or greater), and is typically staffed in the OSC. The augmentation (support) of the I&C position should occur within 90-minutes of an Alert ECL, or greater, and is typically staffed in the OSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Table B-1 of NUREG-0654 calls for the addition of one "Mechanical Maintenance," one "Rad Waste Operator," and an added "Electrical Maintenance" person within 60 minutes. To adequately support an extension of the response time for these responders, the licensee should demonstrate that the responsibilities of these positions can be covered with on-shift staff or earlier responders.*

Operations Emergency Operating Procedures have been developed to provide direction for a wide range of events described in the FSAR that uses operators to place the plant in a safe and stable condition. Maintenance personnel are not called upon in the response stage of an event as repair activities are taken after immediate EOP response actions.

Through equipment, process, and training enhancements the on-shift staff can initially respond to Design Basis and Beyond Design Basis (BDB) events without the support of an augmented ERO. As codified by 10 CFR 50.155, NextEra FLEX equipment provides the on-shift staff with additional resources when installed plant equipment is lost or damaged. Generally, FLEX provides portable backup equipment onsite that can be used to supplement or replace installed plant equipment in maintaining long-term core cooling, spent fuel cooling, and containment integrity. Movement of FLEX equipment, including installation into plant systems and its operations (electrical, fluid, etc.) is performed by on-shift personnel.

Due to the availability of FLEX equipment, NextEra stations have diverse protection against loss of ECCS capability and other systems, which provides a basis for determination that no immediate ECCS repair and corrective actions are likely necessary for on-shift personnel prior to augmentation of maintenance personnel. The FLEX/BDB process and equipment, and the operating emergency procedures (EOP, AOP, etc.) are designed to be implemented with the minimum shift staff. By accounting for FLEX equipment and strategies that eliminate or prolong the need for equipment and systems repair the maintenance challenges are simplified and the need for a 60 minute craft personnel response is diminished.

The NEI 12-01 based staffing analysis performed for using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Repair Team Activities function out to 6 hours for design basis and other ER related events

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Repair Team Activities function out to 120 minutes for design basis and other ER related events.

3.3.10 **[Potential RIE 2-10]** Security Liaison at 90 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Security Liaison minimum staff ERO position that perform the Security function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The licensee's Security Force is controlled and maintained by the licensee's NRC-approved physical security plan and does not need to be reflected in the Emergency Plan. However, the establishment of a Security Liaison position in the TSC is advantageous to ensure effective coordination between the security force and the ERO, particularly for events where offsite resources are necessary as well as for security related events and site personnel accountability. The augmentation (support) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed by a Security Liaison in the TSC to coordinate security-related activities with that of the ERO.*

The site-specific Physical Security Plan (PSP) defines on-shift security staffing. This PSP staffing supports initial event response, either security or emergency plan related. The Security Shift Supervisor communicates directly with the Shift Manager informing them of security related actions and conditions. This communication does not change with the augmentation of the ERO.

Following the transfer of command and control, the Security Liaison position coordinates security and emergency related communications and response actions between the Site Emergency Director and the security force. The Security Liaison position provides communication and coordination resources that are not needed until the TSC and OSC are augmented at the 90 minute point in time.

3.4 ERO Task Analysis

No deviations were identified in the task analysis.

The ERO task Analysis indicates, based on tasks assignments, that the capability to perform emergency plan functions will continue to be met without overburdening the ERO positions in the proposed emergency plan.

3.4.1 Major Process and Task Re-Assignment Changes

The major process and task re-assignments are associated with the following:

1) Activation of the TSC, OSC, EOF emergency response facilities occur at the Alert emergency classification level.
2) The remote Dose Assessor and three remote Engineering ERO positions requires a 60 minute response time. All other minimum staff ERO positions require a 90 minute response time.
3) The Command and Control function, along with all non-delegable responsibilities, are transferred from the Shift Manager to the Site Emergency Director and remain in the TSC throughout a declared emergency.
4) The Lead OSC Supervisor is also assigned the responsibilities of the OSC RP Supervisor.
5) The OSC FIN Supervisor replaces the individual OSC operations and craft supervisor positions to align with current normal NextEra maintenance practices.
6) The EOF provides dose assessment, offsite field monitoring and HPN communication, as well as material and logistics support to the Site Emergency Director for the overall site response.
7) The JIS function is provided by site and corporate response, with support from corporate communications personnel. The EOF and near site JIC remain located within the same near-site building.
8) IT support for emergency response will be provided by the normal NextEra IT 24-hour support process. This aligns with the practice currently used to support Critical Digital Assets during normal operations.

3.4.2 On-Shift ERO Positions

NUREG-0654 R2 revised the staffing plan to remove on-shift positions not directly associated with key function areas having emergency plan response task assignments.

On-shift ERO positions remaining in or added to the emergency plan are as follows:

- Shift Manager
- RPT/RPQI
- Security Shift Supervisor
- Shift Technical Advisor (as a collateral duty)
- Shift Classification Advisor (as a collateral duty)
- Shift Communicator (as a collateral duty)
- Dose Assessor (as a collateral duty)

On-shift ERO positions removed the emergency plan are as follows:

- Operating Supervisor

- Control Operators
- Auxiliary Operators
- Fire Brigade Members
- Chemistry Technician

3.4.3 Minimum Augmenting ERO Positions

Minimum augmenting ERO positions remaining in or added to the emergency plan are as follows:

TSC
- Site Emergency Director (previously Emergency Coordinator - TSC)
- TSC Classification Advisor (previously Emergency Classification Advisor)
- TSC RP Coordinator (previously Site RP Coordinator)
- TSC ORO Communicator
- TSC ENS Communicator (previously NRC Communicator)
- Reactor Engineer – Remote (previously Core/Thermal Engineer)
- Electrical/I&C Engineer– Remote
- Mechanical Engineer– Remote
- Security Liaison

OSC
- Lead OSC Supervisor
- FIN Supervisor (combined craft supervisors)
- RPT/RPQI (previously RPT)
- Electrician
- I&C Technician
- Mechanic

EOF
- EOF Manager (previously Emergency Director)
- EOF RP Coordinator (previously EOF RP Manager)
- EOF Dose Assessor
- Remote Dose Assessor– Remote (previously TSC Dose Assessor)
- FMT Technician (previously onsite/offsite FMT)
- FMT Driver (previously onsite/offsite FMT driver)

JIC
- Site JIS Manager (previously JIC Manager)
- Site JIS Coordinator (previously JIC Coordinator)
- Remote JIS Manager (previously Corporate JIC Manager)

3.4.4 Non-Minimum Augmenting ERO Positions (Support Positions)

Non-minimum augmenting ERO positions that remain in the implementing procedures will be notified at an Alert emergency classification level, at the same time as the minimum augmenting ERO. However, non-minimum augmenting ERO positions are not required to be present to activate the facility and do not relieve the on-shift ERO of any EP responsibilities. Non-minimum augmenting ERO positions have no augmentation time requirement.

Non-minimum augmenting ERO positions are being removed from the emergency plan, but retained in the Emergency Plan Implementing Procedures (EPIPs). The tasks assigned to the non-minimum augmenting ERO positions in the current emergency plan

were reviewed against current NRC guidance to ensure tasks for key functional areas are retained and performed by minimum augmenting ERO positions within the proposed emergency plan.

The non-minimum augmenting ERO will continue to be available and respond to declared emergencies. The non-minimum augmenting ERO will be notified at the same time as the minimum augmenting ERO to respond to their respective Emergency Response Facilities (ERFs) at an Alert or higher Emergency Classification Level (ECL). As currently in place, the non-minimum augmenting ERO is not required to activate a facility.

Non-minimum augmenting ERO positions remaining in the implementing procedures are as follows:

TSC
- TSC Coordinator
- TSC ERF Communicator

OSC
- OSC ERF Communicator

EOF
- Administrative Coordinator (previously Admin Support)
- State & County Liaisons
- Resource Coordinator

JIS/JIC
- JIS Technical Liaison (previously JIC Technical Briefer)
- Media Coordinator (previously Media Center Coordinator)

Additionally, NextEra station and corporate personnel can be called as "as needed" to support ERO response activities. These personnel will perform activities related to their normal jobs (such as engineering, procurement, maintenance planning, administration, etc.) and will be notified to support the ERO as warranted.

3.4.5 Eliminated Augmenting ERO Positions

ERO positions contained in the current emergency plan and implementing procedures that are not contained in the proposed emergency plan or implementing procedures are as follows:

TSC
- Onsite FMT Driver ..... **Minimum Staff, E-Plan**
- Onsite FMT RPT ..... **Minimum Staff, E-Plan**
- Admin Support..... Non- Minimum Staff, E-Plan

OSC
- Operations OSC Supervisor* ..... **Minimum Staff, E-Plan**
- Electrical / I&C OSC Supervisor* ..... **Minimum Staff, E-Plan**
- Mechanical OSC Supervisor*..... **Minimum Staff, E-Plan**
- RP OSC Supervisor ..... **Minimum Staff, E-Plan**
- Chemistry Technician..... **Minimum Staff, E-Plan**

* Replaced by Fix It Now (FIN) Supervisor

EOF

- EOF NRC Communicator ..... **Minimum Staff, E-Plan**
- EOF ERF Communicator ..... **Minimum Staff, E-Plan**
- EOF Coordinator ..... Non- Minimum Staff, E-Plan

All tasks previously assigned to eliminated ERO positions that involve response actions for key functions continue to be performed by the remaining ERO positions in the proposed emergency plan.

3.5 On-Shift Staffing Analysis (OSA)

Regulatory Issue Summary (RIS) 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation, (Reference 6.13), states that an on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 should not be used to provide the primary basis to support the Technical Evaluation of a License Amendment Request (LAR). The OSA, however, may be utilized as part of the overall evaluation of staffing changes. The RIS states:

> *…an evaluation performed using only the guidance of NEI 10-05 does not satisfy the requirement to identify and evaluate changes to ERO augmentation timing or ERO augmentation staffing that reduces the capability to perform an Emergency Planning function.*

In conjunction with this License Amendment Request, NextEra has performed and documented an OSA per 10 CFR 50, Appendix E, Section IV.A.9 following the guidance of NEI 10-05, Assessment of On-Shift Emergency Response Organization Staffing and Capabilities, (Reference 6.14).

The results of the OSA conclude there are no task overlap or overburden of the on-shift staff; however, NextEra understands that the OSA comprises a select set of identified scenarios and is not used as the sole basis for the conclusions in the technical evaluation supporting this amendment request.

3.6 Approved to Current E-Plan Comparison Analysis

This comparison analysis identifies the differences between the approved PBN emergency plan and the current PBN emergency plan. The approved emergency plan consists of the following:

- The latest Safety Evaluation Report (SER) for the entire plan was received in January of 1984, (50-266/83-25, 50-301/83-23) The SER was for Revision 20 of the Point Beach Emergency Plan
- SER issued June 17, 2016, (ML16118A154) for increasing ERO response times from 30 and 60 minutes to 60 and 90 minutes respectively.
- SER, issued June 13, 2018, (ML18079A045) for implementation of NEI 99-01 Rev. 6 EALs contains latest NRC approved EAL scheme.

Differences between the content of those NRC-approved documents and the current PBN emergency plan (as of 1/12/22) were evaluated to determine whether any reductions in effectiveness were introduced by changes made to what was originally approved by the NRC.

The results of the comparison between the approved emergency plan and the current emergency plan revealed the following changes identified as potential RIEs:

3.6.1 **Potintial RIE 5-1** Removed reference to Kewaunee School District

Approved Emergency Plan	**Current Emergency Plan**
4.2.10 Kewaunee School District The Kewaunee School District, when requested, will make available the facilities of the Kewaunee High School for use by WE during an emergency at PBNP. Details of this agreement are presented in Appendix "D”	Not included

Disposition
Kewaunee School District was found to be redundant to the Town of Two Creeks Town Hall for use during an emergency at PBNP. As Point Beach now has a near site EOF outside of the 10 mile EPZ, that also made Kewaunee School District location redundant.

3.6.2 **Potintial RIE 5-2** Removed reference to previously available sound-powered communications system

Approved Emergency Plan	**Current Emergency Plan**
3.4 An internal sound-powered communications system with headset plug-in connections exists throughout the plant, including the control room.	Not included

Disposition
Sound powered phone system was unofficially abandoned at the site and replaced with a handheld radio system. Operations shift staff are required to have access to the radio system.

3.6.3 **Potintial RIE 5-3** Row – 355, Reworded reference to annual audit. Remove requirements for findings to be reviewed by ORC and retention requirements.

Approved Emergency Plan	Current Emergency Plan
2.3 PBNP Manager's Supervisory Staff The PBNP Manager's Supervisory Staff will arrange for audits of the emergency preparedness program annually. The audit will include the Emergency Plan, the EPIPs, practices, training, exercises, drills, records, and equipment. Management controls will be implemented for evaluation and correction of audit findings. The results of the audit will be documented, reported to the Manager's Supervisory Staff and the Offsite Review Committee, and retained for a period of at least five years.	4.0 Review and Updating of The Plan, Procedures and Letters of Agreement The Manager - Nuclear Assurance & Assessment is responsible with the Manager Emergency Preparedness for arranging with the Nuclear Assurance Section for an annual review of the Emergency Preparedness Program.

Disposition

Nuclear Assurance & Assessment (NAA) procedures aligns with the requirements of 54(t) to control the audit process. NAA Manager is the appropriate level of ownership. NAA programmatic requirements control the distribution and review of results.

3.6.4 **Potintial RIE 5-4** Row – 360, Removed requirement for general office support personnel to participate in drills and exercises

Approved Emergency Plan	Current Emergency Plan
b. The Company general office support personnel will take part in exercise and drills coordinated with PBNP as appropriate. These exercises and drills along with proper annual training will ensure that headquarters personnel are aware of their emergency plan responsibilities and are capable of fulfilling them.	Not included

Disposition

Original emergency plan was written with the assumption that Wisconsin Electric would provide HQ support to the site. In the early 90s, Wisconsin Electric made the decision to shift “general office support” to the station, allowing direct support of the facility. At that time, the Emergency Response Organization was expanded to include those persons locally. As there was no HQ support any longer, this section was removed. Corporate personnel may be called on for support, providing assistance based on their normal day to day duties. No specific training is required to provide this support. Note: Corporate office personnel assigned to the JIS will still participate in drills and exercises.

3.7 Current to Proposed E-Plan Comparison Analysis

This comparison analysis identifies the differences between the current emergency plan (as of 01/12/22) and the proposed NextEra Common Emergency Plan (CEP) and PBN Emergency Plan Site Annex.

Differences between the content of current emergency plan and the proposed emergency plan were evaluated to determine whether any potential reductions in effectiveness were introduced by changes made.

The results of the comparison between the current emergency plan and the proposed emergency plan revealed the following changes that could be considered reductions in effectiveness.

3.7.1 **[Potential RIE 6-1]** Removed EP Initial Training of Non-ERO Personnel

Current Emergency Plan	**Common Emergency Plan & Site Annex**
3.0 ORGANIZATIONAL PREPAREDNESS 3.1 Training Corporate and Plant Personnel 3.1.1 Personnel with unescorted access to NextEra Energy Point Beach: a. Personnel with unescorted access will be indoctrinated on the Emergency Plan and Emergency Plan Implementing Procedures (EPIP) through the general access training program. This training program has provisions for immediate indoctrination of new employees. Thereafter, all personnel with unescorted access meet this commitment during annual plant access qualification renewal. b. Personnel with unescorted access shall receive, as a minimum, instructions in the following topics: 1. Emergency alarms and their meanings 2. Emergency assembly areas 3. Precautions and limitations during emergencies 4. Reasons for emergency plans 5. Worker responsibilities during emergencies	N/A

Disposition

R1 and R2 of NUREG-0654 do not contain criteria requiring a description of training for non-ERO/non-essential personnel within the emergency plan). No regulation, other guidance document or inspection procedure calls for a description of non-ERO general employee training to be contained in the emergency plan.

General industrial safety information, which includes awareness and expectations to normal, off-normal and emergency situations is provided to all personnel given unescorted access onto the site. General employee training for unescorted site access includes topics of safety conscious work environment (SCWE), stormwater pollution prevention (SWPP), spill prevention and control, hearing conservation, emergency plan, and fire extinguishers and is presented in the NANTel Generic Awareness and NextEra site specific site access training courses.

Site specific general awareness training scope (industrial and emergency condition related) is governed and controlled outside the emergency plan. Emergency plan awareness content review in general employee training by personnel knowledgeable of the emergency plan is provided in document controls processes and procedures. These processes and procedures are also applicable to changes to made by other non-EP departments that could potentially impact the emergency plan.

3.7.2 **[Potential RIE 6-2]** Reduced Hospital and Ambulance Drill Participation and Periodicity

Current Emergency Plan	**Common Emergency Plan & Site Annex**
c. Medical Emergency Drills A medical emergency drill involving a simulated contaminated individual and containing provisions for participation by the Aurora Medical Center Manitowoc County is conducted every two years. The offsite portions of this drill may be performed as part of the annual exercise. Since the Kewaunee Power Station (KPS) will also be conducting drills with the hospital on a biennial basis, the hospital and a local ambulance service will participate in drills annually.	*[CEP – N.4.a]* Each NextEra site will conduct an onsite simulated medical drill once per calendar year. The scope of the emergency medical drill will include a simulated on-site injured and contaminated individual and medical/ first aid treatment, including contamination control. Emergency Medical Drill offsite participation and periodicity for support Hospital and Ambulance services are performed in accordance with the 42 CFR 482.15 regulations and are not included in the scope of the station medical drills.

Disposition

The hospitals are accredited by The Joint Commission in compliance with 42 CFR 482.15, Condition of Participation: Emergency Preparedness. The regulations and accreditation require the hospitals to maintain an emergency plan and that the emergency preparedness program include, but not be limited to, the following elements (excerpts from the 42 CFR 482.15 regulation):

(a) Emergency plan. The hospital must develop and maintain an emergency preparedness plan that must be reviewed, and updated at least every 2 years. The plan must do the following:

(1) Be based on and include a documented, facility-based and community-based risk assessment, utilizing an all-hazards approach.

(2) Include strategies for addressing emergency events identified by the risk assessment.

(4) Include a process for cooperation and collaboration with local, tribal, regional, State, and Federal emergency preparedness officials' efforts to maintain an integrated response during a disaster or emergency situation.

(b) Policies and procedures. The hospital must develop and implement emergency preparedness policies and procedures, based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, and the communication plan at paragraph (c) of this section. The policies and procedures must be reviewed and updated at least every 2 years.

(d) Training and testing. The hospital must develop and maintain an emergency preparedness training and testing program that is based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, policies and procedures at paragraph (b) of this section, and the communication plan at paragraph (c) of this section. The training and testing program must be reviewed and updated at least every 2 years.

(1) Training program. The hospital must do all of the following:

(i) Initial training in emergency preparedness policies and procedures to all new and existing staff, individuals providing services under arrangement, and volunteers, consistent with their expected role.

(ii) Provide emergency preparedness training at least every 2 years.

Disposition

(iii) Maintain documentation of the training.

(iv) Demonstrate staff knowledge of emergency procedures.

(v) If the emergency preparedness policies and procedures are significantly updated, the hospital must conduct training on the updated policies and procedures.

(2) Testing. The hospital must conduct exercises to test the emergency plan at least twice per year. The hospital must do all of the following:

(i) Participate in an annual full-scale exercise that is community-based; or

(A) When a community-based exercise is not accessible, conduct an annual individual, facility-based functional exercise; or.

(B) If the hospital experiences an actual natural or man-made emergency that requires activation of the emergency plan, the hospital is exempt from engaging in its next required full-scale community-based exercise or individual, facility-based functional exercise following the onset of the emergency event.

(ii) Conduct an additional annual exercise that may include, but is not limited to the following:

(A) A second full-scale exercise that is community-based or an individual, facility-based functional exercise; or

(B) A mock disaster drill; or

(C) A tabletop exercise or workshop that is led by a facilitator and includes a group discussion, using a narrated, clinically-relevant emergency scenario and a set of problem statements, directed messages, or prepared questions designed to challenge an emergency plan.

(iii) Analyze the hospital's response to and maintain documentation of all drills, tabletop exercises, and emergency events, and revise the hospital's emergency plan, as needed.

Therefore, the hospitals use an all-hazards approach to determine the community-risk and priorities of its emergency response preparation (training, drills, etc.) on the risk / priority. Maintaining the Contaminated Medical Emergency Drill annual frequency, places a false priority /risk and circumvent the 42 CFR 482.15 community all-hazards regulations for the hospitals.

Ambulance services are under different regulations (primarily state regulations) but serves the same demographic and has similar community-risk and priority profile. Per the 42 CFR 482.15 regulation, the hospital’s emergency plan includes cooperation and collaboration of local emergency preparedness officials and an annual full-scale community-based drill. CEP Section O.1.a, NextEra will continue to offer emergency response training annually to the ambulance service(s). Training includes basic radiation protection, the notification process for their organization, and their organization’s expected role.

This change removes the requirement for hospital and ambulance participation in the annual emergency medical drill. The proposed CEP revision retains all other previous Offsite Response Organization (ORO) arrangements including offered annually training, offered participation in drills and pre-arrangements documented in Letters of Agreement (LOAs).

NextEra stations will continue to meet the requirements of 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, Section IV.F.1. NextEra stations will continue to have arrangements with the OROs; annual training will be offered, and hospital participation in the emergency medical drill will be coordinated under 42 CFR 482.15 requirements. NextEra stations will participate in the hospital’s community risk assessments to ensure the station’s is properly risk evaluated and prioritized.

On-site emergency medical drill and training will be provided annually for the station’s ERO. The training process/program will determine the need for additional on-site drills included in the training.

This drill participation arrangement was discussed with the OROs (hospitals and ambulance providers) and their concurrence is documented in Enclosure 10.

Disposition

The 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations do not specify a frequency to perform the emergency medical drill. The annual frequency is specified in NUREG-0654 and provides the NRC approved guidance how to comply with the regulations. Licensees "may voluntarily use the guidance in the document to demonstrate compliance" with the NRC regulations or provide "methods or solutions that differ from those described." The alternate method of basing the drill frequency on the ORO community-risk assessment is appropriate and meets the intent of the planning standards.

The change to the emergency medical drill scope retains the annual requirement for the station while allowing the hospital and ambulance service the ability to participate under and within their regulatory requirements. This should provide a commitment which the NRC can evaluate as an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations.

3.7.3 **[Potential RIE 6-3]** Eliminated Annual Site Assembly, Accountability, and Evacuation Drills

Current Emergency Plan	**Common Emergency Plan & Site Annex**
g. Site Assembly, Accountability, and Evacuation Drills A site assembly drill is conducted annually to assure that all personnel are aware of assembly areas. Accountability is implemented to ensure all personnel have been accounted for onsite. A release or evacuation of non ERO personnel may also be conducted as a part of the drill.	N/A

Disposition

NextEra proposes to remove the requirement for an annual Site Assembly, Accountability, and Evacuation Drills at PBN, to align the fleet with NUREG 0654 R2 guidance.

PBN installed an annual assembly drill in 2003 via 50.54(q) process in response to questions from the NRC regarding the knowledge of the ERO and Non-ERO personnel on assembly locations. This was not a formal commitment to the NRC to maintain this activity.

Through the following years, the annual assembly drill has been completed without incident. The drills have not had any issues of personnel not knowing expected actions and where to assemble.

Initial training and continuing training for site access will retain information on locations of assembly locations and expected personnel response. As part of the overall drill and exercise program the ERO is drilled to validate the site protective action processes, with limited participation of Non-ERO personnel.

3.7.4 **[Potential RIE 6-4]** Changed Frequency of Augmentation Drill from Annually to Once per Eight-Year Cycle

Current Emergency Plan	**Common Emergency Plan & Site Annex**
h. Shift Augmentation Drills Shift augmentation drills will be conducted annually.	*[CEP – N.4.h]* Each NextEra site will conduct an off-hours unannounced ERO report-in drill at least once within an eight-year cycle. The scope of the off-hours unannounced ERO report-in drill will require actual response to the assigned facility.

Current Emergency Plan	Common Emergency Plan & Site Annex
	The Off-Hours Report-In Drill requirement may be satisfied by an actual event provided objectives are evaluated and documented in a critique report. *[CEP – N.4.i]* The NextEra ERO notification is an all-call process. Each NextEra site will conduct an off-hours unannounced ERO call-in drill biennially to verify each minimum staffing ERO position meets the required Table B-1 response time. The scope of the off-hours unannounced ERO call-in drill will require collection of the ERO notification system report which documents response within the required time. Completion of an Element N.4.h off-hours unannounced ERO report-in drill satisfies the requirements of the off-hours unannounced ERO call-in drill in this element. The Off-Hours Call-In Drill requirement may be satisfied by an actual event provided the objectives are evaluated and documented in a critique report.

Disposition

The current plan requirement for an annual augmentation drill for the ERO duty team has been changed to once per eight year cycle.

NUREG-0654, Revision 2, Element N.4.h requires that off-hours report-in drills be unannounced and conducted biennially. The proposed NextEra Common Emergency Plan specifies that an unannounced off-hours report-in drill be performed once per 8-year cycle.

Establishing the period for the off-hours report-in drill as once per 8-year cycle is based on the NUREG-0654, Revision 2, Element N.1.c requirement for a 6:00 p.m. and 4:00 a.m. drill or exercise to be performed once per cycle (which is off-hours).

In addition to the requirement of Element N.1.c, every biennial exercise requires demonstration of ERO response and ERF activation following declared emergencies. Requiring additional biennial off-hours report-in drills is a burden to the organization without a commensurate level of benefit to the emergency preparedness program.

Performance of the Element N.4.h call-in drill biennially provides sufficient demonstration of off-hours augmentation capability without significant impact on employees during late non-working hours.

The NextEra ERO notification is an all-call process, which for call-in drills will collect response time estimates from the entire ERO. This process validates all ERO members' response time each time it is used. The CEP drill criteria requires that the biennial ERO call in drill to be unannounced. This change aligns the CEP drill requirement with the intent of NUREG-0654 R2 criteria and provides a shorter periodicity for the testing of the full ERO notification process (annual team testing results in full testing every four years vs. every two years under the new criteria).

The proposed frequency for ERO call-in and report in drills will not impact the ability of the ERO to perform the augmentation function.

3.7.5 **[Potential RIE 6-5]** Reduced ERO Roster Review Periodicity from Quarterly to Semiannually

Current Emergency Plan	Common Emergency Plan & Site Annex
4.0 REVIEW AND UPDATING OF THE PLAN, PROCEDURES AND LETTERS OF AGREEMENT The Emergency Plan and EPIPs will be reviewed on an annual basis and updated as necessary. Updates will take into account needed changes identified by drills and exercises. Management controls will be implemented for evaluation and correction of review findings. The Site Director is responsible for coordinating these efforts. The Site Director is also responsible for coordinating the review and updating of the EPMPs. This includes a quarterly review of emergency telephone lists. The Manager Nuclear Assurance & Assessment is responsible with the Manager Emergency Preparedness for arranging with the Nuclear Assurance Section for an annual review of the Emergency Preparedness Program. Letters of agreement between NextEra Energy Point Beach and outside organizations and agencies will be reviewed annually and renewed if required.	*See row 381 for additional Common Plan wording for other items in current plant section. [CEP – P.10]* The NextEra emergency communications directory contains select contact numbers for ORO and support organizations identified in the emergency plan and implementing procedures. The ERO call-out system contains comprehensive ERO contact information. NextEra ERO contact information is verified semi-annually and updated as needed. Facility and support contact information in the emergency communications directory is verified annually and updated as needed.

Disposition

Due to the local relationships and the advancement of technology, the quarterly emergency telephone directory review is being changed to a semi-annual review. Historically, little change between quarters has occurred such that changing to a semi-annually review would have little impact on accuracy.

With cellular phones being the primary notification tool for ERO personnel, there is not nearly as many changes of phone numbers. In the past, if an individual moved their residence, their phone number likely did not travel with them as the numbers were tied to geographical regions within the city or town they were moving (land lines). With cell phones and changes to long distance billing, many people keep their same cell phone number as they move, whether across town or across country.

Most businesses or other support contacts that are listed in emergency telephone directory are established entities that do not change their business lines often enough to warrant a check every quarter. In addition, the internet is now the primary location to obtain business numbers, with these numbers readily available fewer numbers are required to be maintained in EP phone lists.

3.8 Proposed E-Plan to NUREG-0654 R2 Criteria Comparison Analysis

Each element of NUREG-0654 R2 is clearly stated in the proposed NextEra Common Emergency Plan and PBN Emergency Plan Annex. The proposed plan/annex deviates from the following NUREG-0654 R2 elements:

3.8.1 **[Potential RIE 7-1]** Added Allowance for Remote Response of Engineering and Dose Assessment Function

NextEra Common Emergency Plan	**NUREG-0654 R2**
B.1.b The remote emergency response organization (ERO) positions are defined. Resources necessary to perform the functions and tasks assigned to the remote response positions, as well as a backup capability, are described.	N/A
The NextEra ERO includes remote response positions. Remote response positions are not required to physically manipulate plant equipment or take other physical actions at the site. Remote response positions are provided the resources to collaborate with ERO personnel in their assigned emergency facility. These resources provide; • the ability to communication audio/visually between emergency facility and the remote responder. • the ability to access procedures, information and data. • the ability to share screens/documents. ERO members responding remotely to an emergency are capable of performing all functions and tasks assigned to their position, including support provided to other ERO members, as described in the emergency plan and implementing procedures. These positions support the on-shift staff prior to activation of the TSC and EOF. 1. Remote Responders Assigned to the TSC (refer to Section B.1.a.2) The Reactor Engineer, Electrical/I&C Engineer, and Mechanical Engineer ERO minimum staff positions are remote responders assigned to the TSC. NextEra provides a corporate facility that provides the equivalent resource capability as a backup for the remote ERO engineering positions. 2. Remote Responders Assigned to the EOF (refer to Section B.1.a.4) The Remote Dose Assessor ERO minimum staff position is assigned to the EOF. NextEra provides a corporate facility that provides the equivalent resource capability as a backup for the Remote Dose Assessor position. Additionally, the Shift Dose Assessor from another NextEra site are capable of supporting the affected site as a backup to the Remote Dose Assessor position.	

Disposition

Note – JIS by definition is a remote response process acknowledged by the NRC. It is not included in this disposition of NextEra remote ERO responders.

The Common Emergency Plan includes the following remote response ERO positions:

- Reactor Engineer
- Mechanical Engineer
- Electrical/I&C Engineer
- Remote Dose Assessor

Disposition

Title 10 of the Code of Federal Regulations (10 CFR) 50.47 (b)(2) requires that an onsite emergency plan meet the following standard:

> "On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified."

Providing the ability for specific augmenting ERO positions to participate remotely can enhance overall response efficiency through:

- Safer and faster response by ERO members since travel to an Emergency Response Facility (ERF) during various times, weather conditions, etc. is not necessary.
- Expanding the pool of potential ERO members with individuals possessing desirable expertise at the station and throughout the NextEra fleet.
- Providing greater ERO response since multiple ERO members in a position can be called upon to provide support.

The following key considerations were evaluated when determining the remote ERO response positions and capability:

- Identification of ERO positions with assigned functions and tasks that can be successfully performed in a remote response environment. The position has capability of completing all functions and tasks assigned to the position, including support provided to other ERO members, as described in the emergency plan and implementing procedures.
- Maintaining compliance with regulatory requirements applicable to the ERO.
- Evaluating changes to the approved and current site Emergency Plans and to the guidance in NUREG-0654 R2.
- The impact that a remote response could have on the position's ability to effectively function within the reporting facility or team (e.g., a dose assessment team).
- The ERO response actions in various classified emergency events (example; Hostile Action event or severe weather).
- Overall enhancement and improvements to the ERO response and emergency plan.

The remote ERO positions are not required to respond to a physical location within the activation time, but if desired or necessary there are physical response locations available such as at the station, corporate facility, or NextEra administrative offices.

Remote ERO positions can function from various locations based upon meeting a prompt response time and providing a depth of available communications and information resources. If a remote ERO member cannot perform the function due to personal or technology issue, standard / current processes would be utilized to replace the ERO member as soon as possible or the remote ERO member can relocate to resolve any technical issues.

Remote ERO personnel are capable of communicating with response and support personnel in the applicable ERF, or other locations, through pre-established communication channels. The remote ERO personnel will have various communication mediums (phones, standard conference bridges, internet, video conferencing software, and/or any additional technology advancements) available to them to effectively interface and communicate. The communication medium allows the remote ERO member to:

- Report virtually to an ERF leadership position
- Obtain directions based on the priorities of the event
- Obtain information necessary to perform assigned functions and tasks
- Provide necessary information to others

The pre-established communication channels possess the following features:

- Audio/visual communication between users
- Ability to share screens/documents
- Ability to grant access to other ERO members and ORO agencies, if desired
- Transfer capacity to handle any reasonably expected data and communication needs

Disposition

- System being highly reliable
- Ability of software vendor or NextEra Information Technology (IT) department to push out software updates and notifications of system outages

NextEra has a robust plant process computer system that is used to perform monitoring of each station as a matter of core business. This computer system is available to NextEra staff 24/7 locally and remotely to review plant performance from any location. If detailed in-field information is needed, the information exchange will rely on currently established practices of craft workers and operations staff providing photos of what is seen in the field. This will allow for solid analysis and judgement to be used in response recommendations. Cell phone technology advancements have allowed communications from the field to be vocal and visual (pictures and video); this common practice is used daily to communicate to the Control Room and/or Engineering staff. As necessary, this common practice can be used for any ERO position which could benefit from pictures/video to and from the field, example applications:

- Pictures of a valve can be sent to the Engineer from an in-field Operator.
- Maps can be sent to the FMTs from the Remote Dose Assessor.

The reliability of the computer data systems provided at the corporate and station locations utilized for remote ERO response is similar to the stations' Emergency Response Facilities. The reliability of non- NextEra remote locations (home, etc.) is dependent upon local internet service, but during the Covid-19 crises NextEra staff were able to work remotely effectively and efficiently. It has become a common practice to communicate, conduct multi-person meetings, share documents while working remotely. Personnel utilize the local internet service and cell phone hot spots to connect to the internet. If all else fails, personnel would respond to the NextEra corporate or station location/facility to perform the function remotely. In essence, performing work from remote locations has become a common practice and used daily by the staff.

The remote ERO positions are designated and assigned based on the established ERO selection and qualification process of NextEra. The process contains prerequisites and training to ensure competent personnel are responding to the emergency. The Systematic Approach to Training (SAT) process will be used to determine the initial and continuing training requirements. The training analysis will not be limited or focused on the remote ERO responders but also address the ERO members interfacing with the remote responders.

NRC Inspection Procedures (IP) do not currently identify specific remote ERO response performance evaluation criteria. Thus, performance evaluation would be based upon the Risk-Significant Areas (IP 71114 Section 03.04) and Additional Areas for Inspection (IP 71114 Section 03.06) similar to what is done for Field Monitoring Team and JIS response activities, which are performed outside of the ERFs.

To support the evaluation of the emergency plan and procedures, NextEra is required to conduct drills, exercises, tabletops, etc. to validate and demonstrate that the ERO, including the remote ERO, can responded successfully. Providing new (first-time) enhanced processes and abilities to protect the public should not be limited due to any existing abilities or inabilities to evaluate the enhancements. The NextEra drill and exercise program will be modified, as necessary, to incorporate the demonstration and evaluation of the remote ERO capability. Evaluations will focus upon the remote ERO task performance results. As necessary, drill/exercise evaluator and controllers will monitor the communication channels; similar to evaluations and controls of current remote drill/exercise activities (such as JIS and field monitoring activities). Critiques conducted after these drills and exercises should identify any issues encountered with the remote response; weaknesses identified from the critique will be entered into the appropriate site corrective action process.

During exercises, acceptable performance determination of remote ERO positions is based upon task performance results and monitoring communication channels, as necessary. As stated above, this is similar to evaluating current remote ERO activities. The following areas are examples which could be applicable based upon the remote ERO's responsibilities and task performance results:

- Risk-Significant Areas

Disposition

- Classification of events
- Development of Protective Action Recommendations (PARs)
- Assessment of offsite consequences

- Additional Areas for Inspection
  - Readiness and adequacy of EP equipment
  - Timely activation of facility
  - Command and control
  - Ability to diagnose plant accident conditions
  - Ability to formulate mitigating actions
  - Adequacy of communications
  - Accuracy and completeness of licensee-approved press releases

Administrative controls will ensure that remote ERO responders have access to any required data and any equipment necessary to perform their emergency response duties. Administrative controls will also require periodic tests/maintenance to verify the functionality of the equipment.

Individuals filling remote response positions will adhere to the Fitness-for-Duty (FFD) requirements in 10 CFR 26 and station procedures. Current NextEra procedures and policies require ERO responders to certify they are fit-for-duty prior to assuming their emergency response duties. These same procedures and policies are applicable for the remote ERO personnel.

3.8.2 **[Potential RIE 7-2]** Altered of Minimum Augmenting ERO Positions and Response Times

NextEra Common Emergency Plan	**NUREG-0654 R2**
Refer to Element B.3 and Table B-1: On-Shift and Augmenting ERO Staffing Plan	Refer to Element B.3 and Table B-1: On-Shift and Augmenting ERO Staffing Plan

Disposition

See Sections 3.2 and 3.3 Potential RIE deviation dispositions for position specific ERO position and augmentation time deviation dispositions.

3.8.3 **[Potential RIE 7-3]** EOF not Primary Base of Station Emergency Operations

NextEra Common Emergency Plan	**NUREG-0654 R2**
The Emergency Operations Facility (EOF) provides a dedicated location for support of the site event response activities. The EOF is sized to accommodate ERO responders and NRC, FEMA, and state representatives. The EOF is activated when minimum staffing requirements are met, key systems and equipment are verified operational, and the ERO personnel are prepared to perform their functions. When activated, the EOF's primary functions include: • Coordinate emergency response activities with federal, state, and local authorities • Coordinate support activities performed by personnel brought in to assist NextEra personnel • Perform offsite dose assessment and field monitoring activities.	H.3 An EOF is established, using current Federal guidance, as the primary base of emergency operations for the licensee during a radiological incident. The EOF facilitates the management and coordination of the overall emergency response, including the sharing of information with Federal, state, local, and tribal government authorities.

NextEra Common Emergency Plan	NUREG-0654 R2
• Development of dose based offsite protective actions recommendations. • Coordination of emergency response activities with federal, state, and local authorities. • Coordination of radiological and environmental assessment activities with offsite agencies. • Communicate with the NRC HPN line. • Coordinate corporate support. • Support site acquisition of external assistance (technical, craft, admin, etc.). • Support site acquisition of equipment, supply, and logistic resources. Because the EOF is located outside the plume exposure EPZ for all NextEra sites, specialized ventilation systems and radiological monitoring are not required. The EOF ventilation system is consistent in design with standard building codes. Each EOF provides communications to the Control Room, TSC, field monitoring teams, NRC, and OROs. The EOF has the capability for the acquisition, display, and evaluation of unit, radiological and meteorological conditions necessary to perform accident assessment and determine protective measures. The EOFs have access to drawings and other records, including general arrangement diagrams, piping and instrumentation diagrams (P&IDs), electrical schematics and plant procedures as either electronic or paper documents. The EOF has the capability to support the remote response of ERO positions. Site specific details of the EOF are described in the site annexes.	

Disposition

NextEra will transfer and retains command-and-control and non-delegable tasks in the TSC, and therefore the TSC is the primary base of emergency operations for the licensee. By maintaining command-and-control in the TSC, multiple turnovers of responsibilities are not required. The change to maintain the TSC as the primary base of emergency operations is an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations

3.8.4 **[Potential RIE 7-4]** Reference and Scope Change for MBDBE Exercises

NextEra Common Emergency Plan	**NUREG-0654 R2**
N.3.e 10 CFR 50.155(b)(2) Strategies Demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.155(b)(2). Each NextEra site will conduct at least one scenario requiring demonstration of the ability to transition between procedures and select the strategy(ies) for preventing or mitigating fuel damage and limiting radiological releases, within an eight-year cycle. The MBDBE exercise scenario will be based in one of the site specific strategies used to mitigate spent fuel pool damage scenarios or one of the 7 strategies for PWRs used to mitigate reactor accidents and maintain containment. The MBDBE exercise may be conducted separately from the main exercise timeline and sequence of events. This includes the (simulated) deployment and use of equipment associated with these strategies. At a minimum, TSC and OSC ERO staff will participate in this portion of the exercise. Participation of Control Room, EOF, JIC ERO, and offsite officials may be simulated. Methods to accomplish this demonstration are dependent upon the nature of the postulated initiating event, the plant response/accident sequence, and the ability of responders to select and implement mitigation/management strategies. These methods involve conducting any of the following: • A demonstration of the transition from a controlling AOP or EOP into the Extensive Damage Mitigation Guidelines (EDMGs), FLEX support guidelines (FSGs), or Severe Accident Management Guidelines (SAMGs). • A demonstration of the use of EDMGs. • A demonstration of the use of FSGs. • A demonstration of the use of SAMGs.	N.3.e 10 CFR 50 54(hh)(2) Strategies Demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2).

Disposition

NUREG-0654 R2 Element N.3.e calls for the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2). 10 CFR 50.54(hh)(2) has been replace by 10 CFR 50.155(b)(2). Language of the two regulations is as follows:

10 CFR 50.54(hh)(2) (74 FR 13925)	***10 CFR 50.155(b)(2) (84 FR 39684)***

Disposition

Each licensee shall develop and implement guidance and strategies intended to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the circumstances associated with loss of large areas of the plant due to explosions or fire, to include strategies in the following areas: *(i) Fire fighting;* *(ii) Operations to mitigate fuel damage; and* *(iii) Actions to minimize radiological release.*	*Extensive damage mitigation guidelines—Strategies and guidelines to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the circumstances associated with loss of large areas of the plant impacted by the event, due to explosions or fire, to include strategies and guidelines in the following areas:* *(i) Firefighting;* *(ii) Operations to mitigate fuel damage; and* *(iii) Actions to minimize radiological release.*

Scope of Strategies Used in an Emergency Plan Related MBDBE Exercise

The Federal Register content (74 FR 13925) for implementation of 10 CFR 50.54(hh)(2) provided the following discussion:

> *Section 50.54(hh)(2) requires licensees to develop guidance and strategies for addressing the loss of large areas of the plant due to explosions or fires from a beyond-design basis event through the use of readily available resources and by identifying potential practicable areas for the use of beyond-readily-available resources. These strategies are to address a licensee's responses to events that are beyond the design basis of the facility. The requirements in the final rule are based on similar requirements originally found in the ICM order of 2002. Ultimately, these mitigative strategies were further developed and refined through extensive interactions with licensees and industry. The NRC recognizes that these mitigative strategies are beneficial for the mitigation of all beyond-design basis events that result in the loss of large areas of the plant due to explosions or fires. Current reactor licensees comply with these requirements through the use of the following 14 strategies that have been required through an operating license condition. These strategies fall into the three general areas identified by §§ 50.54(hh)(2)(i), (ii), and (iii). The fire-fighting response strategy reflected in § 50.54(hh)(2)(i) encompasses the following elements:*
>
> *1. Pre-defined coordinated fire response strategy and guidance.*
>
> *2. Assessment of mutual aid fire fighting assets.*
>
> *3. Designated staging areas for equipment and materials.*
>
> *4. Command and control.*
>
> *5. Training of response personnel.*
>
> *The operations to mitigate fuel damage provision in § 50.54(hh)(2)(ii) includes consideration of the following:*
>
> *1. Protection and use of personnel assets.*
>
> *2. Communications.*
>
> *3. Minimizing fire spread.*
>
> *4. Procedures for implementing integrated fire response strategy.*
>
> *5. Identification of readily-available, pre-staged equipment.*
>
> *6. Training on integrated fire response strategy.*
>
> *7. Spent fuel pool mitigation measures.*
>
> *The actions to minimize radiological release provision in § 50.54(hh)(2)(iii) includes consideration of the following:*
>
> *1. Water spray scrubbing.*
>
> *2. Dose to onsite responders.*

Disposition

> *The Commission considered specifically including these 14 strategies in § 50.54(hh)(2). However, the Commission decided that the more general performance-based language in § 50.54(hh)(2) was a better approach to account for future reactor facility designs that may contain features that preclude the need for some of these strategies. New reactor licensees are required to employ the same strategies as current reactor licensees to address core cooling, spent fuel pool cooling, and containment integrity. The mitigative strategies employed by new reactors as required by this rule would also need to account for, as appropriate, the specific features of the plant design, or any design changes made as a result of an aircraft assessment that would be performed in accordance with the proposed Aircraft Impact Assessment rule (72 FR 56287; October 3, 2007).*

As shown above, the actual number/list of strategies was not included in the body of the 10 CFR 50.54(hh)(2) regulation.

Subsequent regulatory guidance clarified the list of EDMG response strategies, and the NRC endorsement of NEI 06-12 specifically provided seven EDMG strategies for PWRs, which have been tied to 10 CFR 50 Appendix E.IV.F.2.j.(iii)(4) by the NRC in ML20070K088:

- Makeup to RWST
- Manually Depressurize SGs to Reduce Inventory Loss
- Manual Operation of Turbine-Driven (or diesel-driven) AFW Pump
- Manually Depressurize SGs and Use Portable Pump
- Makeup to CST/AFWST
- Containment Flooding with Portable Pump
- Portable Sprays

In this regard, NUREG-0654 R2 guidance on the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] are as follows:

> *These exercises should address development and maintenance of the following skills associated with the 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] strategies:*
>
> - *Use of the strategies to mitigate spent fuel pool damage scenarios. All applicable strategies, such as makeup, spray, and leakage control, should be addressed, but not every variation of a given strategy needs to be addressed; and*
> - *Use of the strategies to mitigate reactor accidents and maintain containment. Each of the 10 strategies for BWRs or 7 strategies for PWRs should be addressed based on the type of reactor, but not every variation of a given strategy needs to be addressed.*

Thus, the scope of strategies applicable to an emergency plan MBDBE exercise in the proposed emergency plan include the site specific strategies used to mitigate spent fuel pool damage scenarios and the 7 strategies for PWRs used to mitigate reactor accidents and maintain containment.

<u>Strategy Frequency Used in an Emergency Plan Related MBDBE Exercise</u>

10 CFR 50 Appendix E.IV.F.2.j.(iii), states that licensees shall vary the content of scenarios during exercises. MBDBE exercises are one of five types of exercise scenarios listed in Appendix E, each of which have multiple variations. Demonstration of all or multiple variations for each type of exercise scenario is not the intent of the regulation, and performance of all the possible exercise variations/strategies is not possible in the four NRC evaluated biennial exercises conducted within the cycle. As it is, the current list of exercise scenario types must already be combined in order to be demonstrated during a biennial NRC evaluated exercise.

Thus, only one MBDBE strategy needs to be performed in a biennial NRC evaluated exercise within the cycle. Similar to the scenario variations for the other types for exercises, MBDBE strategies are expected to be varied between exercise evaluations. An exercise with multiple strategies or more than one MBDBE based exercise within the cycle is not required by the proposed emergency plan.

<u>Extent of Play Used in an Emergency Plan Related MBDBE Exercise</u>

Disposition

The relocation of 10 CFR 50.54(hh)(2) content to 10 CFR 50.155(b)(2) involved only minor wording changes. However, included in the movement of the regulation was the specific intent to not regulatorily require drills or exercises, as provided by the following discussion in the Federal Register (84 FR 39684):

> *The NRC noted that the conduct of drills or exercises was not included as a requirement in the Mitigation Strategies Order, instead being an element of an acceptable approach to meeting the order's requirement for training. Drills are addressed in the regulatory guidance for the Mitigation Strategies Order contained in section 11.6.5 of NEI 12-06, as endorsed by JLD-ISG-2012-01 and carried forward to the regulatory guidance for the final rule. NEI 12-06, Revisions 0 and 2 contained guidance on the content and periodicity of these drills, specifying the same 8-year period as was proposed for this rule. NEI 12-06, Revision 4, which is endorsed by the final version of Regulatory Guide 1.226, incorporates by reference further guidance on the performance of drills contained in the industry document NEI 13-06, Revision 1, "Enhancements to Emergency Response Capabilities for Beyond Design Basis Accidents and Events," which also specifies the 8-year period that was proposed for drill performance for this rule….*
>
> *The NRC concludes that the requirements imposed by the Mitigation Strategies Order were sufficient to provide reasonable assurance of adequate protection and no new information was developed with regard to drills or exercises that would modify this conclusion. The NRC similarly concludes that imposing a requirement for drills and exercises would not provide a substantial increase in the overall protection of public health and safety. Therefore, the imposition of a requirement for drills or exercises would not meet the provisions of the Backfit Rule. The requirement for drills and exercises has been removed from the final rule….*
>
> *In addition, the NRC did not revise the MBDBE drill frequency because it is specified in the regulatory guidance for the final rule in response to these comments. The NRC concluded that the 8-year periodicity strikes the correct balance in terms of providing an appropriate level of regulatory assurance, and, by aligning with the current emergency preparedness exercise requirements, it provides licensees with flexibility should they choose to implement the drills in conjunction with emergency preparedness drills or exercises.*

However, 10 CFR 50 Appendix E does require licensees to provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to respond to a scenario under § 50.155(b)(2) once in each 8-calendar-year cycle in an exercise.

In this regard, NUREG-0654 R2 guidance on the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] are as follows:

> *The portion of a biennial exercise that involves demonstration of strategies associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] may be conducted separately from the main exercise timeline and sequence of events. Thus, the initiating event(s) for entry into site-specific guidelines or procedures associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] may differ from the initiating event(s) of the main exercise scenario and could involve an initiating event other than hostile action, such as a fire, flood, or explosion affecting large areas of the site, or station blackout. At a minimum, TSC and OSC staff would need to participate in this portion of the exercise. Participation of CR personnel, EOF staff, JIC staff, and offsite officials may be simulated consistent with the purpose of this portion of the exercise to maintain key ERO skills for familiarity with guidelines, procedures, and strategies associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)]. This includes the (simulated) deployment and use of equipment associated with these strategies and intended to maintain or restore core cooling, containment, and/or spent fuel pool cooling. The portion of the exercise scenario addressing demonstration of 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] related strategies should be included in the licensee's submittal of the biennial exercise scenario for NRC review. Exercises may also include the use of the NRC-endorsed mitigation strategies described in NEI 12-06, Revision 0, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide."*

Disposition

NEI 13-06, endorsed by the NRC and included in the Federal Register notice for implementation of 10 CFR 50.155(b)(2), provides additional information regarding the extent of play of MBDBE drills:

> *5.3.1 Industry Performance Standards for BDB Event Response Drills*
>
> *Each licensee should demonstrate the capability for effective integrated use of their accident mitigation and management procedure and guideline sets. In particular, the ability to transition between procedure and guideline sets, and select the best strategy for preventing or mitigating fuel damage and limiting radiological releases, is demonstrated. Complementary methods will be necessary to accomplish this demonstration since the procedures and guidelines implemented for a given scenario are dependent upon the nature of the postulated initiating event, the plant response/accident sequence, and the ability of responders to select and implement mitigation/management strategies. The use of complementary methods will also promote more effective use of resources (e.g., facilitates targeted drill objectives, avoids excessive drill "down time" and durations, etc.), and minimize potential safety challenges to personnel and equipment. These methods are discussed below and involve conducting:*
>
> - *A drill that demonstrates the integrated use of FLEX strategies under the control of an Abnormal Operating Procedure (AOP) or Emergency Operating Procedure (EOP), as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.4.*
> - *A drill that demonstrates the transition from a controlling AOP, EOP or Extensive Damage Mitigation Guidelines (EDMG) into Severe Accident Management Guidelines (SAMGs), and the selection of appropriate severe accident management strategies. The integrated use of FLEX strategies may occur if directed by the controlling SAMG and as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.5.*
> - *A drill that demonstrates the use of EDMG strategies. The integrated use of AOPs and EOPs, and FLEX strategies, may occur if directed by the controlling EDMG as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.6.*

Thus, the extent of play applicable to an emergency plan MBDBE exercise in the proposed emergency plan specifies that only TSC and OSC ERO personnel are required staffing (although other emergency response facilities may be included) and demonstration involves;

(1) the transition from emergency operating procedures into Extensive Damage Mitigation Guidelines (EDMGs), FLEX support guidelines (FSGs), or Severe Accident Management Guidelines (SAMGs), and

(2) use of the EDMG, FSG or SAMG from a decision making and communications aspect with simulated field actions.

Summary

The proposed emergency plan replaces the NUREG-0654 element reference from 10 CFR 50.54(hh)(2) to 10 CFR 50.155(b)(2), and establishes the scope (meaning type of MBDBE strategies), number (meaning how many MBDBE strategies must be demonstrated within the cycle) and the ERO's extent of play of those exercises.

This detailed specification is consistent with 10 CFR 50 Appendix E.IV.F.2.j.(iii).

Other drills and training that involve personnel and response actions outside the scope of the emergency plan will continue to be conducted under the MBDBE program.

3.8.5 **[Potential RIE 7-5]** Reduced Hospital and Ambulance Drill Participation and Periodicity

NextEra Common Emergency Plan	**NUREG-0654 R2**
[CEP – N.4.a] Each NextEra site will conduct an onsite simulated medical drill once per calendar year. The scope of the emergency medical drill will include a simulated on-site injured and contaminated individual and medical/ first aid treatment, including contamination control. Emergency Medical Drill offsite participation and periodicity for support Hospital and Ambulance services are performed in accordance with the 42 CFR 482.15 regulations and are not included in the scope of the station medical drills.	N.4.a Emergency Medical Drills Emergency medical drills are conducted annually. These drills involve a simulated, contaminated individual and contain provisions for participation by support services agencies (i.e., ambulance and offsite medical treatment facility).

Disposition

The hospitals are accredited by The Joint Commission in compliance with 42 CFR 482.15, Condition of Participation: Emergency Preparedness. The regulations and accreditation require the hospitals to maintain an emergency plan and that the emergency preparedness program include, but not be limited to, the following elements (excerpts from the 42 CFR 482.15 regulation):

(a) Emergency plan. The hospital must develop and maintain an emergency preparedness plan that must be reviewed, and updated at least every 2 years. The plan must do the following:

(1) Be based on and include a documented, facility-based and community-based risk assessment, utilizing an all-hazards approach.

(2) Include strategies for addressing emergency events identified by the risk assessment.

(4) Include a process for cooperation and collaboration with local, tribal, regional, State, and Federal emergency preparedness officials' efforts to maintain an integrated response during a disaster or emergency situation.

(b) Policies and procedures. The hospital must develop and implement emergency preparedness policies and procedures, based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, and the communication plan at paragraph (c) of this section. The policies and procedures must be reviewed and updated at least every 2 years.

(d) Training and testing. The hospital must develop and maintain an emergency preparedness training and testing program that is based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, policies and procedures at paragraph (b) of this section, and the communication plan at paragraph (c) of this section. The training and testing program must be reviewed and updated at least every 2 years.

(1) Training program. The hospital must do all of the following:

(i) Initial training in emergency preparedness policies and procedures to all new and existing staff, individuals providing services under arrangement, and volunteers, consistent with their expected role.

(ii) Provide emergency preparedness training at least every 2 years.

(iii) Maintain documentation of the training.

(iv) Demonstrate staff knowledge of emergency procedures.

(v) If the emergency preparedness policies and procedures are significantly updated, the hospital must conduct training on the updated policies and procedures.

(2) Testing. The hospital must conduct exercises to test the emergency plan at least twice per year. The hospital must do all of the following:

Disposition

(i) Participate in an annual full-scale exercise that is community-based; or

(A) When a community-based exercise is not accessible, conduct an annual individual, facility-based functional exercise; or.

(B) If the hospital experiences an actual natural or man-made emergency that requires activation of the emergency plan, the hospital is exempt from engaging in its next required full-scale community-based exercise or individual, facility-based functional exercise following the onset of the emergency event.

(ii) Conduct an additional annual exercise that may include, but is not limited to the following:

(A) A second full-scale exercise that is community-based or an individual, facility-based functional exercise; or

(B) A mock disaster drill; or

(C) A tabletop exercise or workshop that is led by a facilitator and includes a group discussion, using a narrated, clinically-relevant emergency scenario and a set of problem statements, directed messages, or prepared questions designed to challenge an emergency plan.

(iii) Analyze the hospital's response to and maintain documentation of all drills, tabletop exercises, and emergency events, and revise the hospital's emergency plan, as needed.

Therefore, the hospitals use an all-hazards approach to determine the community-risk and priorities of its emergency response preparation (training, drills, etc.) on the risk / priority. Maintaining the Contaminated Medical Emergency Drill annual frequency, places a false priority /risk and circumvent the 42 CFR 482.15 community all-hazards regulations for the hospitals.

Ambulance services are under different regulations (primarily state regulations) but serves the same demographic and has similar community-risk and priority profile. Per the 42 CFR 482.15 regulation, the hospital’s emergency plan includes cooperation and collaboration of local emergency preparedness officials and an annual full-scale community-based drill. CEP Section O.1.a, NextEra will continue to offer emergency response training annually to the ambulance service(s). Training includes basic radiation protection, the notification process for their organization, and their organization’s expected role.

This change removes the requirement for hospital and ambulance participation in the annual emergency medical drill. The proposed CEP revision retains all other previous Offsite Response Organization (ORO) arrangements including offered annually training, offered participation in drills and pre-arrangements documented in Letters of Agreement (LOAs).

NextEra stations will continue to meet the requirements of 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, Section IV.F.1. NextEra stations will continue to have arrangements with the OROs; annual training will be offered, and hospital participation in the emergency medical drill will be coordinated under 42 CFR 482.15 requirements. NextEra stations will participate in the hospital’s community risk assessments to ensure the station’s is properly risk evaluated and prioritized.

On-site emergency medical drill and training will be provided annually for the station’s ERO. The training process/program will determine the need for additional on-site drills included in the training.

This drill participation arrangement was discussed with the OROs (hospitals and ambulance providers) and their concurrence is documented in Enclosure 10.

The 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations do not specify a frequency to perform the emergency medical drill. The annual frequency is specified in NUREG-0654 and provides the NRC approved guidance how to comply with the regulations. Licensees “may voluntarily use the guidance in the document to demonstrate compliance” with the NRC regulations or provide “methods or solutions that differ from those described.” The alternate method of basing the drill frequency on the ORO community-risk assessment is appropriate and meets the intent of the planning standards.

Disposition

The change to the emergency medical drill scope retains the annual requirement for the station while allowing the hospital and ambulance service the ability to participate under and within their regulatory requirements. This should provide a commitment which the NRC can evaluate as an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations.

3.8.6 **[Potential RIE 7-6]** Reduced Biennial Report-In Drill Frequency to Cycle

NextEra Common Emergency Plan	**NUREG-0654 R2**
Each NextEra site will conduct an off-hours unannounced ERO report-in drill at least once within an eight-year cycle. The scope of the off-hours unannounced ERO report-in drill will require actual response to the assigned facility. The Off-Hours Report-In Drill requirement may be satisfied by an actual event provided objectives are evaluated and documented in a critique report.	N.4.h Off-Hours Report-In Drills Off-hours report-in drills are conducted biennially and are unannounced.

Disposition

The current emergency plan requires an off-hours unannounced report-in drills once in each 8-year cycle. NUREG-0654, Revision 2, Element N.4.h requires that off-hours report-in drills be unannounced and conducted biennially. The proposed NextEra Common Emergency Plan specifies that an unannounced off-hours report-in drill be performed once per 8-year cycle.

Establishing the period for the off-hours report-in drill as once per 8-year cycle is based on the NUREG-0654, Revision 2, Element N.1.c requirement for a 6:00 p.m. and 4:00 a.m. drill or exercise to be performed once per cycle (which is off-hours).

In addition to the requirement of Element N.1.c, every biennial exercise requires demonstration of ERO response and ERF activation following declared emergencies. Requiring additional biennial off-hours report-in drills is a burden to the organization without a commensurate level of benefit to the emergency preparedness program.

Performance of the Element N.4.h call-in drill within the cycle periodicity provides sufficient demonstration of off-hours augmentation capability without significant impact on employees during late non-working hours.

3.8.7 **[Potential RIE 7-7]** Reduced Quarterly Call-In Drill Frequency to Biennially

NextEra Common Emergency Plan	**NUREG-0654 R2**
The NextEra ERO notification is an all-call process. Each NextEra site will conduct an off-hours unannounced ERO call-in drill biennially to verify each minimum staffing ERO position meets the required Table B-1 response time. The scope of the off-hours unannounced ERO call-in drill will require collection of the ERO notification system report which documents response within the required time. Completion of an Element N.4.h off-hours unannounced ERO report-in drill satisfies the requirements of the off-hours unannounced ERO call-in drill in this element.	N.4.i **Off-Hours Call-In Drills** Off-hours call-in drills are conducted quarterly, such that each ERO member's normally expected response time is assessed at least biennially based on call-in drill responses or an alternate means for determining response time. Some drills are unannounced.

NextEra Common Emergency Plan	NUREG-0654 R2
The Off-Hours Call-In Drill requirement may be satisfied by an actual event provided the objectives are evaluated and documented in a critique report.	

Disposition

NUREG-0654 R2, Element N.4.h designates that off-hour call-in drills be conducted at least quarterly, such that each ERO member's response time is validated at least biennially (with some drills being unannounced).

The proposed emergency plan specifies that off-hours call-in drill be performed biennially. Additionally, the non-period specific requirement for some drills to be unannounced has been established as a biennial frequency.

The NextEra ERO notification is an all-call process, which for call-in drills will collect response time estimates from the entire ERO. This process validates all ERO members' response time each time it is used.

Removing the quarterly requirement to test a portion of the ERO response and retaining the biennial requirement for a complete ERO response meets the intent of the NUREG-0654 element.

3.8.8 **[Potential RIE 7-8]** Added Minimum Staffing Drill Once per Cycle

NextEra Common Emergency Plan	NUREG-0654 R2
N.4.l **Minimum Staffing Drills** An ERO minimum staffing (no participation of non-minimum augmenting ERO personnel) drill is conducted at least once during every eight-year exercise cycle.	N/A
Each NextEra site will conduct a minimum staffing drill at least once within an eight-year cycle.	
A minimum staffing response drill requires facility activation, full transfer of responsibilities from the Control Room, and demonstration of event assessment and response activities.	

Disposition

There is no requirement to perform minimum augmenting ERO drills.

The proposed emergency plan has voluntarily added a requirement to conduct a minimum staffing drill once in each 8-year cycle to verify that the minimum augmenting ERO positions identified in the NextEra Common Emergency Plan can effectively implement the emergency plan without the assistance of additional support personnel.

Specific objectives will include timely facility activation, transfer of command and control, event assessment and classification, notification and response activities.

This change exceeds the ERO drill requirements of the current emergency plan and NUREG-0654 R2.

3.8.9 **[Potential RIE 7-9]** Added On-shift Response Drill Once per Cycle

NextEra Common Emergency Plan	**NUREG-0654 R2**
N.4.m **On-Shift Response** An ERO on-shift response (ERO augmentation no sooner than 90 minutes) drill is conducted at least once during every eight-year exercise cycle. Each NextEra site will conduct a minimum staffing drill at least once within an eight-year cycle. A minimum staffing response drill requires facility activation, full transfer of responsibilities from the Control Room, and demonstration of event assessment and response activities.	N/A

Disposition

There is no requirement to perform On-Shift Response Drill.

The proposed emergency plan has voluntarily added requirement to conduct one drill each 8-year cycle to verify that the on-shift ERO positions identified in the NextEra Common Emergency Plan can effectively implement the emergency plan without the support of augmenting ERO personnel for a minimum of 90 minutes after event declaration.

Specific objectives will include classification, notification and PAR functions with the on-shift staff.

This change exceeds the ERO drill requirements of the current emergency plan and NUREG-0654 R2.

3.8.10 **[Potential RIE 7-10]** Response Personnel Retraining Periodicity Not Specified

NextEra Common Emergency Plan	**NUREG-0654 R2**
Initial and continuing training is conducted to ensure ERO personnel are properly qualified to their specific position. Categories of ERO personnel requiring training include: 1. Emergency Directors (includes the aspect of classification, notification and PARs) 2. Accident Assessment 3. Radiation Protection and Monitoring a. ERO RPT position is qualified to ANSI technician standards. b. ERO RP Qualified Individual position is task qualified to perform the following: • Provide RP coverage for accessing known radiological environments (which includes respirator qualifications) • Control dosimetry and RCA access • Provide in-plant surveys	O.1 Each organization ensures the training of emergency responders and other appropriate individuals with an operational role is described in the emergency plan. Initial training and at least annual retraining are provided.

NextEra Common Emergency Plan	NUREG-0654 R2
c. ERO Field Monitoring Team Technicians receive initial training for the tasks they will be expected to perform during an emergency. The following general topics will be included in the training: • Equipment and equipment checks • Communications • Plume tracking techniques • Personnel monitoring • Emergency exposure criteria • Locations and use of radiological emergency equipment 4. Repair and Damage Control Teams a. Lead OSC Supervisor position is trained to perform RP supervisory tasks. b. Operations, maintenance, chemistry and radiation protection personnel who would be assigned to repair and damage control teams are trained as part of their normal job-specific duties to respond to both normal and abnormal plant conditions and work under direction of an ERO supervisor in the OSC. 5. Security a. Security personnel receive emergency plan training as part of their normal job specific training. b. Security personnel assigned a specific ERO position receive training on emergency plan related tasks. 6. Fire Brigade – Refer to the site fire protection program. 7. First Aid – Personnel assigned as first aid responders maintain qualifications equivalent to Red Cross Standard First Aid techniques.	

Disposition

As stated in section O.2 of the proposed emergency plan, the ERO training program is developed and evaluated based on position-specific responsibilities/tasks using Systems Approach to Training (SAT) principles, when applicable. The SAT process determines the necessary periodicity of the retraining (continuing training) on a task basis.

3.8.11 **[Potential RIE 7-11]** Training Program Review Periodicity Not Specified

NextEra Common Emergency Plan	**NUREG-0654 R2**
Changes to the training program are identified from trainee feedback and by critique items captured during drills and incorporated per the principles of the SAT process.	O.2.a The ERO training program is reviewed at least annually and revised as necessary.

Disposition

As stated in section O.2 of the proposed emergency plan, the ERO training program is developed and evaluated based on position-specific responsibilities/tasks using Systems Approach to Training (SAT) principles, when applicable. In addition to continuous training evaluation through drill and exercise critique process that identifies performance issues and initiates training reviews for particular tasks, the SAT process includes provisions for training program review.

3.9 Site Specific EP Commitment Analysis

This analysis identifies the PBN site-specific emergency preparedness commitments made to the NRC and determines whether they continue to be required in the proposed NextEra Common Emergency Plan or PBN Emergency Plan Annex.

The results of the analysis of on-going PBN site-specific NRC commitments and the commitments contained in the proposed NextEra Common Emergency Plan and PBN Emergency Plan Annex revealed that all site-specific NRC commitments are captured within the proposed emergency plan.

There are no new commitments identified in this analysis.

3.10 Impact of Proposed Changes on State Emergency Plan

A draft copy of the proposed NextEra Common Emergency Plan and PBN Emergency Plan Annex was sent to emergency preparedness representatives at the State of Wisconsin, Manitowoc County and Kewaunee County to inform them of the proposed changes and solicit comments.

State and county personnel provided information via mail (written or electronic) stating that the agency concurs with PBN's initiative to develop the NextEra Common Emergency Plan and PBN Emergency Plan Annex. Further concurrence will be acquired upon NRC approval of the proposed NextEra Common Emergency Plan and PBN Emergency Plan Annex and revisions to the ORO emergency preparedness programs will be conducted during the requested implementation period, as necessary.

Refer to Enclosure 10, Correspondence from State Agencies, for agency response regarding proposed changes to the PBN emergency plan.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The proposed NextEra Common Emergency Plan establishes an updated licensing basis for the NextEra sites that complies with current NRC regulations in 10 CFR 50.47(b) and 10 CFR 50, Appendix E. In addition, the proposed NextEra Common Emergency Plan is formatted and uses the NRC-generated guidance in NUREG-0654/FEMA-REP-1, Revision 2 (Reference 6.8).

RIS 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation (Reference 6.13), was also reviewed in support of this submittal.

The proposed changes have been evaluated against the applicable regulatory requirements and guidance criteria. Each section of the proposed NextEra Common Emergency Plan lists applicable regulations (all 10 CFR 50.47(b) planning standards are addressed) and Appendix 3 of the plan includes a cross reference to the 10 CFR 50 Appendix E Section IV criteria. The proposed NextEra Common Emergency Plan continues to assure that regulatory requirements and emergency planning standards associated with emergency response are met.

4.2 Precedent

NUREG-0654/FEMA-REP-1, Revision 2, issued December 2019, reflects changes to both NRC and FEMA regulations, guidance, policies, and doctrine, as well as advances in technology and best practices that have occurred since the document was originally issued in November 1980. This update also incorporates the four supplemental documents and addenda that have been issued in the intervening years and is intended to modernize and consolidate the guidance making it easier for users to understand.

The following are industry precedents of licensees requesting and receiving approval for a change of the Emergency Plan based on NUREG-0654/FEMA-REP-1, Revision 2, guidance:

- Duke Energy Corporation (Reference 6.19)
- South Texas Project Nuclear Operating Company (Reference 6.21)
- La Crosse Boiling Water Reactor (LABWR) / Dairyland (Reference 6.24)
- Southern Nuclear Operating Company (Reference 6.25)

The above Duke Energy and Southern Nuclear Operating Company are also recent precedents of common fleet emergency plans.

4.3 No Significant Hazards Consideration Determination Analysis

Pursuant to 10 CFR 50.90 and 10 CFR 50.54(q), amendment to the licenses for PBN Units 1 and 2 is being requested. Specifically, the proposed changes would revise the PBN operating licenses to adopt the proposed NextEra Common Emergency Plan that includes the PBN Emergency Plan Annex.

By standardizing emergency plans, NextEra will make improvements to the fleet by increasing consistency of organizations, duties and responsibilities, procedures, and training. NextEra also will align the sites using consistent standards and definitions. The changes will make NextEra 's emergency plan easier to follow and understand.

The requested amendments to the licenses support changes to the PBN emergency plan based upon completion of a supporting evaluation of the proposed NextEra Common Emergency Plan and PBN Emergency Plan Annex. The proposed changes will help align the NextEra nuclear sites' emergency preparedness programs with NUREG-0654/FEMA-REP-1, Revision 2.

The proposed changes have been reviewed considering the applicable requirements of 10 CFR 50.47, 10 CFR 50 Appendix E and other applicable NRC guidance criteria. NextEra has evaluated the proposed changes and determined that those changes do not involve a Significant Hazards Consideration. In support of this determination, an evaluation of each of the three (3) standards, set forth in 10 CFR 50.92, *"Issuance of amendment,"* is provided below.

1. ***Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?***

   Response: No.

   The proposed changes do not increase the probability or consequences of an accident. The proposed changes do not impact the function of plant Structures, Systems, or Components (SSCs). The proposed changes do not affect accident initiators or accident precursors, nor do the changes alter design assumptions. The proposed changes do not alter or prevent the ability of the onsite ERO to perform their intended functions to mitigate the consequences of an accident or event. No changes are proposed to the ERO, emergency classifications, accident assessment, notification methods, facilities and equipment, training, or public agency support that would alter the consequences of an accident. The proposed changes establish a new NextEra Common Emergency Plan with site-specific annexes and modifies the emergency response organization (ERO). The new emergency plan continues to meet applicable requirements and standards as well as provide for effective emergency response. The new emergency plan also continues to provide necessary response staff for emergencies as demonstrated by functional analysis as well as staffing analysis in accordance with 10 CFR 50 Appendix E.IV.A.9.

   Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. ***Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?***

Response: No.

The proposed changes have no impact on the design, function, or operation of any plant SSCs. The proposed changes do not affect plant equipment or accident analyses. The proposed changes do not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed), a change in the method of plant operation, or new operator actions. The proposed changes do not introduce failure modes that could result in a new accident, and the proposed changes do not alter assumptions made in the safety analysis. The proposed changes establish a new NextEra Common Emergency Plan with site-specific annex and modifies the emergency response organization (ERO). The new emergency plan continues to meet applicable requirements and standards as well as provide for effective emergency response. The new emergency plan also continues to provide necessary response staff for emergencies as demonstrated by functional analysis as well as staffing analysis in accordance with 10 CFR 50 Appendix E.IV.A.9.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

Margin of safety is associated with confidence in the ability of the fission product barriers (i.e., fuel cladding, reactor coolant system pressure boundary, and containment structure) to limit the level of radiation dose to the public.

The proposed changes do not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analyses. There are no changes being made to safety analysis assumptions, safety limits, or limiting safety system settings that would adversely affect plant safety as a result of the proposed changes. Margins of safety are unaffected by the proposed changes to the PBN emergency plan.

The proposed changes do not impact operation of the plant or its response to transients or accidents. The proposed changes do not involve a change in the method of plant operation, and no accident analyses will be affected by the proposed changes. Safety analysis acceptance criteria are not affected by these proposed changes. The proposed changes will continue to provide effective emergency response as well as the necessary onsite ERO response staff.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

4.4 Conclusions

In conclusion, based on the considerations discussed above: 1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, 2) such activities will be conducted in compliance with the Commission's regulations, and 3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

6.1 10 CFR 50.47, Emergency Plans

6.2 10 CFR 50.54(q), Conditions of licenses – Emergency Plans

6.3 10 CFR 50.90, Application for amendment of license, construction permit, or early site permit

6.4 10 CFR 50, Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities

6.5 Regulatory Guide 1.219, Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors, Revision 1, July 2016

6.6 NSIR/DPR-ISG-01, Interim Staff Guidance, Emergency Planning for Nuclear Power Plants, Revision 0, November 2011

6.7 NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Revision 1, November 1980

6.8 NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, , Revision 2, December 2019 (ML19347D139)

6.9 NUREG-0654/FEMA-REP-1 Supplement 3, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants – Guidance for Protective Action Strategies, November 2011 (ML113010596)

6.10 Technical Basis for the Proposed Guidance in NUREG-0654/FEMA-REP-1, Section II.B, “Emergency Response Organization” (ML16117A427)

6.11 NUREG-0696, Functional Criteria for Emergency Response Facilities, February 1981 (ML051390358)

6.12 NUREG-0737, Supplement 1, Clarification of TMI Action Plan Requirements – Requirements for Emergency Response Capability, January 1983 (ML102560009)

6.13 RIS 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation, August 2016 (ML16124A002)

6.14 NEI 10-05, Assessment of On-Shift Emergency Response Organization Staffing and Capabilities, Revision 0, June 2011

6.15 NEI 99-01, Development of Emergency Action Levels for Non-Passive Reactors, Revision 6, November 2012

6.16 PBN Updated Final Safety Analysis Report (UFSAR)

6.17 Letter from NRC to Point Beach Nuclear Plant dated January of 1984, (50-266/83-25, 50-301/83-23) The SER documenting approval of Revision 20 of the Point Beach Emergency Plan

6.18 Letter form NRC to *Point Beach Nuclear Plant, Unit 1 and 2 – Issuance of Amendments RE: License Amendment Request 277, Revision to Staff Augmentation Times in the Point Beach Nuclear Plant Emergency Plan*, dated June 17, 2016 (ADAMS Accession No. ML16118A154)

6.19 Letter from NRC to Duke Energy Corporation – Catawba Nuclear Station, Units 1 and 2; McGuire Nuclear Station, Units 1 and 2; Oconee Nuclear Station, Units 1, 2 and 3; Brunswick Steam Electric Plant, Units 1 and 2; Shearon Harris Nuclear Power Plant, Unit 1; and H. B. Robinson Steam Electric Plant, Unit No. 2 – Issuance of Amendments for Common Emergency Plan Consistent with NUREG-0654, Revision 2, dated August 26, 2021 (ADAMS Accession No. ML21155A213)

6.20 Letter from Duke Energy to NRC – *License Amendment Request for Common Emergency Plan Consistent with NUREG-0654, Revision 2*, dated September 3, 2020 (ADAMS Accession No. ML20247J468)

6.21 Letter from NRC to STP Nuclear Operating Company – South Texas Project, Units 1 and 2 – Correction to Amendment Nos. 221 and 206 to Authorize Revision of the Emergency Plan Based on NUREG-0654/FEMA-REP-1, Revision 2, dated May 11, 2021 (ADAMS Accession No. ML21120A184)

6.22 Letter from South Texas Project Nuclear Operating Company to NRC – *License Amendment Request to Revise South Texas Project Electric Generating Station (STPEGS) Emergency Plan*, dated March 30, 2020 (ADAMS Accession No. ML20090B745)

6.23 Letter from Southern Nuclear Operating Company to NRC – *License Amendment Request for Revise the Emergency Plan to Change Staffing and Extend Staff Augmentation Times for Emergency Response Organization Positions*, dated June 30, 2020 (ADAMS Accession No. ML20192A140)

6.24 La Crosse Boiling Water Reactor – Issuance of Amendment No. 77 Approving Independent Spent Fuel Storage Installation Emergency Plan, Revision 40, dated April 20, 2022

6.25 Letter from NRC to Southern Nuclear Operating Company – Farley Nuclear Plant, Units 1 and 2; Hatch Nuclear Plant, Units 1 and 2; and Vogtle Generating Plant, Units 1 and 2 – Issuance of Amendments Regarding Revision to Emergency Plan to Change Staffing and Extend Staff Augmentation Times for Emergency Response Organization Positions (ADAMS Accession No. ML21217A091)

Attachment 1 – ERO Staffing Plan Comparison Table

		NUREG-0654 R2				Current E-Plan			Proposed E-Plan		
Function	**Position Title**	**Shift**	**Alert 60 Min**	**Alert 90 Min**	**SAE 60 Min**	**Shift[(e)]**	**Alert 60 Min**	**Alert 90 Min**	**Shift**	**Alert 60 Min**	**Alert 90 Min**
Plant Systems Operations	Operating Supervisor					2					
	Control Operators					4					
	Auxiliary Operators					5					
Command and Control / Facility Control	Shift Manager	1				1			1		
	Site Emergency Director (TSC)		1				1				1
	EOF Manager (EOF)				1			1			1
Emergency Classifications	Classification Advisor (CR/TSC)	1(a)	1			1(a)	1		1(a)		1
Communications	Shift Communicator	1(a)				1			1(a)		
	ORO Communicator (TSC)		1				1				1
	ENS Communicator (TSC)		1				1				1
	HPN Communicator(I)				1			1			
	ERF Communicator(g)						1	1			
Supervision RP Activities	Shift Manager	1(a)				1(a)	1		1(a)		
	TSC RP Coordinator (TSC)		1								1
	EOF RP Coordinator (EOF)				1			1			1
Radiation Protection	RP Technician	2	3	3		2	3	3	1		3
	RP Qualified Individual								1		2
Dose Assessments / Projections	Shift Dose Assessor	1(a)				1(a)			1(a)		
	EOF Dose Assessor (EOF)		1				1 (TSC)	1			1
	Remote Dose Assessor (TSC/OSC)									1	
Field Monitoring Teams	Onsite FM Technician		1				1				
	Onsite FM Driver		1				1				
	Offsite FM Technician (EOF)		1	1			1	1			2
	Offsite FM Driver (EOF)		1	1			1	1			2

Attachment 1 – ERO Staffing Plan Comparison Table

Function	Position Title	NUREG-0654 R2				Current E-Plan			Proposed E-Plan		
		Shift	Alert 60 Min	Alert 90 Min	SAE 60 Min	Shift[e]	Alert 60 Min	Alert 90 Min	Shift	Alert 60 Min	Alert 90 Min
Supervision of Repair Team Activities	Lead OSC Supervisor (OSC)		1				1				1
	FIN Supervisor (OSC)										1
	Elect/I&C Supervisor (OSC)(h, f)			1				1			
	Mechanical Supervisor (OSC)(h)			1				1			
	Ops Supervisor (OSC)(h)			1			1				
	RP Supervisor (OSC)(h)			1				1			
Repair Team Activities	Electrical Technician (OSC)		1				1				1
	Mechanical Technician (OSC)		1				1				1
	I&C Technician (OSC)			1				1			1
	Chemistry Technician (OSC)						1				N/A
Engineering and Plant Monitoring	STA	1(a)							1(a)		
	Electrical/I&C Engineer (Remote)		1				1			1	
	Mechanical Engineer (Remote)		1				1			1	
	Nuclear Engineer (Remote)		1				1			1	
Security	Security Shift Supervisor					1			1		
	Security Force	(b)							(b)		
	Security Liaison (TSC)		1				1				1
Media Information	JIS / JIC Staff		(c)		(c)						
	JIS / JIC Manager (Site)							1	(c)		1
	JIS / JIC Coordinator (Site)							1	(c)		1
	Remote JIS Manager (Remote)							1	(c)		1
Information Technology (IT)	IT Coordinator (Site)			1							(d)
	IT Coordinator (EOF)				1						(d)
ERO Totals – Full Breakdown		**3**	**20**	**11**	**5**	**5 [e]**	**23**	**17**	**4**	**4**	**25**
ERO Totals – On-shift and Minimum Staffing		**3**	**36**			**5**	**40**		**4**	**29**	
ERO Totals – All Required Positions Filled		**39**				**45**			**33**		

Attachment 1 – ERO Staffing Plan Comparison Table

(a) Individuals assigned to these positions may have collateral duties. On-Shift Staffing Analysis confirmed that assigned individuals can adequately perform collateral functions without having competing priorities.

(b) Per the site Security Plan.

(c) Does not need to be performed in the JIC, but function needs to be established at this point. ERO response to and activation of the JIC is coordinated with the offsite agencies and carries no time requirement.

(d) IT personnel monitor Critical Digital Assets remotely and respond any time an issue is identified.

(e) Current emergency plan identifies shift staffing as required by the Technical Specifications plus RPTs, Security Supervisor and a Chemistry Technician. Positions not counted in this table as ERO positions.

(f) Electrical and I&C Supervisors combined.

(g) Emergency Response Facility Communicators will continue to be staff as non-minimum staff positions by procedure.

(h) Positions in current plan, duties now performed by FIN Supervisor ana OSC Lead Supervisor.

Enclosure 2

Florida Power & Light Company

St. Lucie Plant, Units Nos. 1 and 2

Dockets 50-335 and 50-389 / Renewed Facility Operating Licenses DPR-67 and NPF-16

License Amendment Request for Common Emergency Plan
Consistent with NUREG-0654, Revision 2

EVALUATION OF PROPOSED CHANGES

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1.0 SUMMARY DESCRIPTION

Pursuant to 10 CFR 50.90, Florida Power & Light Company (FPL) requests amendments to the operating licenses for St Lucie Plant (PSL) Units 1 and 2. Specifically, the proposed changes would revise the operating licenses to adopt the proposed NextEra Common Emergency Plan and site-specific annexes. The proposed NextEra Common Emergency Plan establishes an updated licensing basis for PSL that complies with current NRC regulations in 10 CFR 50.47 (Reference 6.1) and 10 CFR 50 Appendix E (Reference 6.4), and the guidance NUREG-0654/FEMA-REP-1 Revision 2 (Reference 6.8).

NextEra has developed the proposed common emergency plan using the NUREG-0654/FEMA-REP-1, Revision 2 outline and is organized such that each evaluation criterion (or planning element) is explicitly stated, followed by a description of how the NextEra Common Emergency Plan will address that criterion.

The proposed NextEra Common Emergency Plan provides the basis for response actions that would be implemented in an emergency and the requirements for maintenance and administration of the emergency preparedness program. Planning elements common to all sites are encompassed within the common emergency plan. The site-specific annexes generally contain unique information such as:

- Local agency and support organizations, site specific agreement lists, etc.
- Site specific response facilities and equipment
- Site specific commitments

The formal PSL Emergency Plan consists of the following separately maintained Emergency Preparedness (EP) licensing basis documents, all of which are subject to the requirements of 10 CFR 50.54(q) (Reference 6.2):

- NextEra Common Emergency Plan
- PSL Emergency Plan Annex
- PSL Emergency Action Level Technical Basis
- PSL On-Shift Staffing Analysis
- PSL Evacuation Time Estimate Study
- PSL Protective Action Recommendation Strategy Technical Basis
- PSL Alert and Notification System Design Report

Enclosures 5 through 9 contain the proposed NextEra Common Emergency Plan and the site-specific emergency plan annexes, respectively. This license amendment request is limited to the proposed NextEra Common Emergency Plan, PSL Emergency Plan Annex, and the On-Shift Staffing Analysis, of which only the proposed NextEra Common Emergency Plan and the PSL Emergency Plan Annex require NRC approval. The results of the On-Shift Staffing Analysis are described in Section 3.5 of this change evaluation. The remaining Emergency Plan licensing basis documents are not affected by the re-baselining of the PSL Emergency Plan.

2.0 DETAILED DESCRIPTION

2.1 Proposed Changes

The proposed NextEra Common Emergency Plan was developed based upon NRC guidance contained in NUREG-0654/FEMA-REP-1, Revision 2 (Reference 6.8).

This re-baselining of the emergency plan includes revisions to align staffing with the functions and major task delineations, specifically the on-shift and minimum augmenting Emergency Response Organization (ERO) assigned within these functional areas. Consistent with the NUREG-0654 /FEMA-REP-1, Revision 2, the proposed changes will also remove reference to non-minimum augmenting ERO positions from the emergency plan while retaining appropriate positions in the applicable implementing procedures.

Changes in the proposed NextEra Common Emergency Plan and PSL Emergency Plan Annex that could be considered a reduction in effectiveness (RIE) from the updated NUREG-0654/FEMA-REP-1, Revision 2, guidance or from the current PSL emergency plan have been identified in this document as potential RIEs. Detailed justification is provided for those potential RIEs in Section 3, Technical Evaluation, to document that the proposed NextEra Common Emergency Plan and PSL Emergency Plan Annex continues to provide an adequate response to radiological emergencies.

- Section 3.1 documents the technical advancements and program enhancements implemented after the original Emergency Plan was approved or are included in the proposed Emergency Plan
- Section 3.2 documents and dispositions the RIEs determined in the ERO functional analysis
- Section 3.3 documents and dispositions the RIEs determined in the ERO augmentation analysis
- Section 3.4 documents and dispositions the RIE determined in the ERO task analysis
- Section 3.5 documents the results of the ERO on-shift staffing analysis
- Section 3.6 documents and dispositions the RIEs determined in the approved Emergency Plan to current Emergency Plan comparison analysis
- Section 3.7 documents and dispositions the RIEs determined in the proposed Emergency Plan to current Emergency Plan comparison analysis
- Section 3.8 documents and dispositions the RIEs determined in the proposed Emergency Plan to NUREG-0654/FEMA-REP-1, Revision 2, criterion comparison analysis
- Section 3.9 documents the results of the site specific commitment analysis
- Section 3.10 documents the impact of the proposed changes on state and ORO emergency plans

Additionally, an Emergency Plan to 10 CFR 50 Appendix E comparison analysis was developed. The results of this analysis are documented in Appendix 3 of the proposed NextEra Common Emergency Plan (Enclosure 5).

2.2 Reason for the Proposed Changes

The PSL emergency plan is being converted into the proposed NextEra Common Emergency Plan and PSL Emergency Plan Annex, which are based primarily on the NUREG-0654/FEMA-REP-1, Revision 2 guidance.

By standardizing the emergency plans across the fleet, NextEra will make program wide improvements by standardization of response organizations, duties and responsibilities, processes, procedures, and training. NextEra also will align the sites using consistent standards and definitions.

2.3 Current PSL Emergency Plan Background

The NRC's Safety Evaluation Report (SER) for the PSL facility operating license, dated December 1, 1981 (Reference 6.17), documents the approval of the post-TMI version emergency plan (Revision 8).

3.0 TECHNICAL EVALUATION

The evaluation of the proposed changes is discussed below.

3.1 Technical Advancements and Program Enhancements

The sub-sections below describe the site-specific and industry improvements implemented or proposed since the last revision of the NUREG-0654 /FEMA-REP-1 guidance and initial approval of the PSL emergency plan. The industry has had the following generic process, program and technical change enhancements:

- Plant systems and procedures, including:
  - Severe Accident Management Guidelines (SAMG)
  - FLEX Support Guidelines (FSG)
  - Extensive Damage Mitigation Guidelines (EDMG)
  - EOP/AOP
  - Plant computer, control and instrumentation systems
- Emergency preparedness (EP) programs, processes, and equipment, including:
  - Communication and notification systems (Plant and public)
  - Dose Assessment programs and processes
  - Emergency Action Levels (EALs)
  - NRC ERDS system
- Operator, ERO, and General Employee Training (GET) training
- Radiological monitoring systems
- Computer and internet usage
- Work Control – Risk Assessment

Many of the advancements and enhancements have resulted from responses to Three Mile Island, Chernobyl, September 11th, and Fukushima. These changes have been instituted and codified, in many cases, which better supports ERO functions, ease operator burden, and improves augmented ERO efficiency.

In addition to site specific and industry enhancements, the Nuclear Regulatory Commission (NRC) has updated and improved on regulations, guidance documents (NUREGs), inspections (ISGs), Regulatory Issue Summaries (RISs), etc. which has resulted in overall positive emergency preparedness programs. Specifically, the Emergency Preparedness Final Rule (10 CFR 50.47, Emergency Plans and Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities, to 10 CFR 50 (published in the Federal Register (FR) on November 23, 2011 (76 FR 72560)) codified Emergency Preparedness program enhancements for security and non-security event related topics. The Final Rule included improvements and clarity based upon technology advances implementation and lessons learned from drills/exercises and actual events. The Final Rule included the following:

- On-Shift Staffing Analysis

- Emergency Response Organization Augmentation at Alternate Facility
- Licensee Coordination with Offsite Response Organizations
- Protective Actions for Onsite Personnel
- Challenging Drills and Exercises
- Emergency Declaration Timeliness
- EOF – Performance-Based Approach
- Backup Means for Alert and Notification Systems
- ORO Event Response Integration with Nuclear Power Plants
- Emergency Action Levels (EALs) for Security Events
- Amended Emergency Plan Change Process
- Updating of Evacuation Time Estimates (ETEs)

The improvements to processes, procedures, equipment, and training that have occurred since initial approval of the PSL emergency plan have resulted in a significant increase in on-shift and augmented ERO knowledge and capability.

These improvements collectively support the overall conclusion that there would be no degradation or loss of function resulting from the changes in the proposed PSL emergency plan.

3.1.1 Information Gathering and Display Systems

PSL's plant computer system has been upgraded several times since the original PSL emergency plan was approved. The current system, Digital Control System (DCS) / Emergency Response Data Acquisition and Display System (ERDADS) graphically displays pertinent parameters with trending and graphing capabilities, alarm functions, and color-coded Critical Safety Function Status Trees. DCS/ERDADS provides the capability to monitor and trend plant parameters in real-time, including primary coolant system parameters, reactor core thermal performance parameters, emergency core cooling system (ECCS) parameters, meteorological data, containment isolation status, and radiation monitor readings.

The DCS/ERDADS user interface was designed to be intuitive, require inputs, and allow for active monitoring of real-time plant data via system diagrams and Critical Safety Function displays. The DCS/ERDADS computer system is powered via Vital AC Power with a DC battery backup.

Benefits of the upgraded DCS/ERDADS system include:

- Programming capability for automated response, such as indication of critical parameter alarms
- Improved plant monitoring capability for Emergency Director and STA functions
- Fewer inputs required to switch between graphical displays
- Real-time plant data available through graphical displays

Additionally, the DCS/ERDADS provides plant and environmental data used to assess abnormal operating conditions and mitigate the consequences of an accident. DCS/ERDADS performs the following emergency response support functions:

- Implementation of the Safety Parameter Display System as described in NUREG-0696 and NUREG-0737, Supplement 1.
- Data acquisition and signal processing for the Engineered Safety Features Status Monitoring System.
- Data acquisition and signal processing for the normal plant monitoring systems, including portions of the plant annunciator system.
- Data processing for offsite datalinks to the NRC Emergency Response Data system (ERDS).

DCS/ERDADS workstations are provided in the Control Room, TSC, and EOF.

3.1.2 Dose Assessment and Protective Action Recommendations

The original NUREG-0654/FEMA-REP-1, Revision 1 based emergency plans included exposure and dose rate determination using transparent overlays showing lines of constant dose appropriate for the existing meteorological conditions together with appropriately scaled maps of the area surrounding the plant (a manual method). Since then, radiological dose assessment has benefited from technological advances that make its use simpler and less time consuming. Dose assessment program advancements have simplified rapid assessment capability, and on-shift dose assessment, allowing the function to be performed as a collateral duty.

NextEra fleet will implement the Unified RASCAL Interface (URI), a user friendly Visual Basic.net program. The current version of URI is a Microsoft Windows-based application and supports multi-unit / multi-accident assessment of radiological releases. URI utilizes menus and toolbars with the majority of inputs on a single screen making the program user friendly. URI has simplified data entry requirements and dose assessment can be performed with minimal data input. URI displays have been developed to obtain the necessary plant, radiological effluent, area radiation monitor, and meteorological near-real time information that is used by on-shift and augmenting ERO personnel to perform dose assessment. Thus, dose assessment enhancements have reduced the time required to perform dose assessment and to provide the results to the Emergency Director.

Redundant dose assessment computers were installed as part of the implementation of Cyber Security requirements. PSL has an individual plant data screen dedicated to the needs of dose assessment inputs.

The plant display systems (see discussion above) have improved over the years allowing access to more data points used with dose assessment.

Dose assessment results and field monitoring readings assist in evaluating appropriate Emergency Classification Levels (ECLs) based on radiological Emergency Action Levels (EALs) and developing Protective Action Recommendations (PARs).

The ERO uses NUREG-0654/FEMA-REP-1, Revision 1, Supplement 3 based flowcharts to determine the appropriate Protective Action Recommendation to provide to offsite

authorities, which allow for rapid determination of a PAR based on plant conditions, wind direction and radiological assessments.

The overall improvements in technology and information availability over the years have enabled the on-shift staff to assess plant conditions quickly and efficiently, and with less distraction than before. The computational power of modern processors allows for calculation of dose projections that take seconds rather than minutes.

3.1.3 Procedural Improvements

a. Emergency Operating Procedures (EOPs)

Since NUREG-0654/FEMA-REP-1, Revision 1, EOPs have been developed and improved through industry initiatives. EOPs generally use a symptom-based approach that demands less assessment and interpretation of plant conditions by the operators. In addition, the EOPs are better human factored, and have an improved layout allowing for more consistent implementation.

EOPs interface well with new technology such as the plant process control system. The plant process control system is capable of graphically displaying plant conditions to assist in EOP execution.

b. Emergency Action Levels (EALs)

FPL has updated its EAL scheme to the latest NRC endorsed scheme published in NEI 99-01, Development of Emergency Action Levels for Non-Passive Reactors, Revision 6. The PSL EALs incorporate the new guidance that has simplified the classification process, including the use of a matrix of EAL initiating conditions that streamlines the process of evaluating EALs against plant conditions.

3.1.4 Training

a. Operations Training

Training is used to strategically drive improved performance at the NextEra sites. Since NRC NUREG-0654/FEMA-REP-1, Revision 1, use of the Systematic Approach to Training process has resulted in developing a task list for operations personnel. This process ensures training is conducted to industry-accepted standards and has led to accreditation of the Operations Training Programs by the Institute of Nuclear Power Operations (INPO) National Academy for Nuclear Training.

The simulator is routinely used during operations training. Simulator requalification evaluations include emergency response scenarios. Simulator scenarios are designed to be realistic and reflect a wide range of plant conditions, including emergency conditions. During simulator-evaluated sessions the Control Room staff is taken from normal operations to accident conditions which require evaluation against EALs and may result in an ECL up to a General Emergency. The operations crew performs emergency plan critical functions, such as classification, core damage assessment, accident mitigation, response prioritization, and communications without augmentation from additional responders. The proficiency of the Control

Room staff in performing these functions, while maintaining situational awareness, without additional support is assessed during evaluated simulator sessions.

The Licensed Operator Requalification program includes licensed operations crew performance evaluations that are to consider the scenario guidance attributes of INPO Operations Department Standing Instruction, ODSI-3, Operations Department Guidance for Conducting Crew Performance Evaluations.

INPO ODSI-3 provides guidance on the realistic integration of the emergency response into crew performance evaluations. The purpose is to ensure the challenges the Emergency Plan responsibilities add to the crew's ability to manage an event are realistically represented in crew training and performance evaluations.

b. Shift Technical Advisor Training

The Shift Technical Advisor (STA) was originally trained as an advisor to the operating shift per NUREG-0737, Clarification of TMI Action Plan Requirements. In 2014, additional guidelines were developed by INPO for the training of STAs. This is detailed in the document ACAD 14-002, Guidelines for the Training and Qualification of the Shift Technical Advisor.

The ACAD 14-002 guidelines describe the role of the STA. The STA performs independent assessments of plant operating concerns, technical support, appropriate corrective actions, analysis of events and their effects, effectiveness of response(s) to emergent conditions, classifications of emergencies, protection of the public and any other actions related to critical safety functions and plant safety during abnormal and emergency situations. By routine monitoring of equipment and plant operations, the STA can focus on preventative actions in order to mitigate the consequences of an accident. The STA, if separate, also assists the Shift Manager with operability, risk and reportability determinations, and EAL classification.

The STA training and qualification program adheres to the requirements of INPO 90-003 and is implemented by training program procedures.

3.1.5 Radiation Protection (RP) Improvements

There have been many improvements in RP since the ERO staffing was established under NUREG-0654/FEMA-REP-1, Revision 1, guidance. There have been advances in technology for currently available equipment such as portal monitors, self-reading and alarming dosimeters, and automated access control points.

Some RP support functions associated with in-plant protective actions, such as access control, personnel monitoring, and dosimetry are now included in rad worker training and qualification given to operations and maintenance personnel. These tasks now require much less dedicated support from RP personnel since they are performed by a broader segment of the organization using newer technology, tools, and plant process enhancements. The following summarizes these enhancements:

a. Access Control and Dosimetry

When the PSL emergency plan was originally issued, radiological access control was a labor-intensive task. Dedicated Radiation Protection Technicians (RPTs) were required to ensure workers read and understood their Radiation Work Permit (RWP). Issuance of dosimetry was a manual process requiring RPTs to calibrate, issue and record dosimeters, verify worker training, and verify and track radiation dose margins.

Radiological access control is now automated using computerized radiation protection work processes. Radiological access control is primarily completed using electronic dosimetry, which is obtained prior to entry into Radiologically Controlled Areas (RCAs). The electronic dosimeter is also used as a "key" to unlock turnstiles to gain access to RCAs. Electronic RWPs establish the necessary preset electronic dosimeter warning and alarm parameters. Using electronic dosimeters eliminates the need for access control and dosimetry oversight by an RPT. Electronic RWP access control and electronic dosimeter computer systems provide a fully integrated system allowing workers to sign-in to their RWP and to self-issue electronic dosimeters. These systems have been routinely used by plant workers for numerous years. Additionally, emergency electronic dosimeters are available for use when expedited entrance to an RCA is required.

b. Personnel Monitoring

Automated whole-body and extremity monitors provide simplified contamination monitoring. All radiation workers are qualified to use the automated whole-body monitors without RPT support or direction.

When the automated whole-body monitors are not available, hand-held friskers can be used for personnel contamination monitoring. All radiation workers are qualified to use the hand-held friskers without RPT support or direction.

3.1.6 Automated Call-Out Systems

Since initial approval of the PSL emergency plan, NextEra has implemented enhancements to the ERO mobilization process, including updated technology capable of rapidly notifying the entire ERO. The original process used a pager network and call tree process, while the current process uses a multi-line automated callout system that notifies ERO members via cell phones, home phones and internet (as applicable) via a single activation call from any telephone. For redundancy, the automated notification system has a primary and backup facilities located in different geographic locations with separate computer systems and databases, and communications lines.

3.2 ERO Key Function Analysis

The ERO Key Function Analysis compares and evaluates the current emergency plan on-shift and minimum staff ERO positions against those in the proposed emergency plan and in NUREG-0654 R2 guidance. Staffing deviations in the proposed emergency plan from the current emergency plan and NUREG-0654 R2 are categorized as potential RIEs and evaluated to determine whether the capability to perform the function is sustained (no degradation or loss of function).

Refer to Attachment 1, ERO Staffing Plan Comparison Table, for a side-by-side summary staffing and augmentation comparison between NUREG-0654 R2 Table B-1, the current emergency plan, and the proposed emergency plan.

The Key Function Analysis establishes that no degradation or loss of function, or mis-alignment or loss of task assignment would occur as a result of any change made to the on-shift and minimum augmenting ERO positions. This alternate staffing approach continues to support timely and effective performance of the Major Functional Areas and Major Tasks listed in NUREG-0654 R2 Table B-1.

3.2.1 **[Potential RIE 1-1]** No EOF Director/ED Position

The proposed emergency plan does not assign an EOF Emergency Director minimum staff ERO position at the Site Area Emergency classification level for the Command and Control function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Command and Control function from two (2) to one (1). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *For a SAE ECL, or greater, these functions (or a subset of them), typically those associated with protective action recommendations (PARs), should be assigned to an Emergency Director located in the EOF….*

The NextEra TSCs and EOFs are activated at an Alert emergency classification level. By activating both the TSC and EOF at an Alert emergency classification level and maintaining the non-delegable tasks of classification, notification, and PARs in the TSC, the proposed emergency plan does not need to provide additional augmenting ERO positions to move those tasks between emergency response facilities.

An EOF Emergency Director minimum staff ERO position is not needed at the Site Area Emergency classification level as the Command and Control function, along with all non-delegable responsibilities, are transferred from the Shift Manager to the Site Emergency Director at the Alert emergency classification level and remain in the TSC throughout a declared emergency. This change in the proposed emergency plan simply retains the Command and Control function in the TSC with the Site Emergency Director.

3.2.2 **[Potential RIE 1-2]** No EOF ORO Communicator Position

The proposed emergency plan does not provide a EOF ORO Communicator minimum staff ERO position at the Site Area Emergency classification level for the Communications function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the ORO aspect of the Communications function from two (2) to one (1). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee. These are typically located in the TSC. For an SAE ECL, or greater, at least 1 additional communicator should be staffed in the EOF.*

NUREG-0654 R2 guidance designates the Offsite Response Organization (ORO) (State/County) communication location as 'typically' in the TSC based on staggered activation of the emergency response facilities.

The NextEra TSCs and EOFs are activated at an Alert emergency classification level. By activating both the TSC and EOF at an Alert emergency classification level and maintaining the non-delegable tasks of classification, notification, and PARs in the TSC, the proposed emergency plan does not need to provide additional augmenting ERO positions to move those tasks between emergency response facilities.

An EOF State/County Communicator minimum staff ERO position is not needed at the Site Area Emergency classification level as the Communications function for the ORO remains in the TSC throughout a declared emergency. This change in the proposed emergency plan simply retains the Communications function for the ORO in the TSC.

3.2.3 **[Potential RIE 1-3]** Fewer Shift RP Personnel

The proposed emergency plan reduces the number of on-shift ERO positions for the Radiation Protection function. Specifically, this change reduces the overall number of radiation protection personnel on-shift ERO positions used for the Radiation Protection function from three (3) in the current emergency plan to two (2) in the proposed emergency plan.

This change deviates from the current emergency plan on-shift staff ERO position requirements.

Deviation Justification: NUREG-0654 R2 Table B-1 calls for "Two qualified radiation protection personnel for a single unit site or one per unit for a multi-unit site."

The proposed emergency plan provides two qualified radiation protection personnel.

The on-shift Chemistry Technician does not have emergency plan responsibilities in the proposed emergency plan. Staffing of an on-shift Chemistry Technician may continue outside the requirements of the emergency plan.

The proposed emergency plan on-shift staffing conforms to NUREG-0654 R2.

3.2.4 **[Potential RIE 1-4]** On-shift RP Personnel Allowed Collateral Duties

The proposed emergency plan allows collateral duty assignments to be given to radiation protection personnel when performing the Radiation Protection function. Specifically, this change allows radiation protection personnel to perform the Dose Assessment /Projections function and support other on-shift actions when not assigned a response activity.

This change deviates from the NUREG-0654 R2 on-shift staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *The ability to provide radiological expertise when the plant is experiencing an event with serious radiological consequences is crucial, due to the unknown radiological environment faced by emergency workers, particularly at the onset of the event. This function should be staffed by 2 qualified RP staff members on-shift (or 1 per unit for multi-unit sites). These staff members should not have any collateral duties during emergency response.*

Consistent with NUREG-0654 R2, the proposed emergency plan assigns the Dose Assessments / Projections as a collateral duty. This emergency response collateral duty can be assigned to any on-shift individual qualified in Dose Assessment.

Personnel who are not ANSI qualified RPTs, such as an appropriately trained and qualified operator or a chemistry technician, may be assigned to the dedicated on-shift RPQI position. When the RPQI position is not filled by a qualified ANSI RPT, they cannot be given time sensitive or other tasks during emergency response that interfere with the Radiation Protection function.

3.2.5 **[Potential RIE 1-5]** Fewer OSC RP Response Personnel

The proposed emergency plan reduces the number and qualifications of minimum staff ERO positions for the Radiation Protection function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Radiation Protection function from six (6) in the current emergency plan and in NUREG-0654, to five (5) in the proposed emergency plan, consisting of three (3) RPTs and two (2) RP Qualified individuals that are task trained but not required to be ANSI equivalent RPTs. This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *While not all Alert ECLs (or lower) have radiological consequences, licensees should develop their ERO staffing plans for a worst-case scenario from a radiological risk perspective, i.e., an event which results in the immediate (within 60-minutes) loss of 2 or more fission product barriers leading to significant and unknown radiological conditions. The augmentation (support) of this position should occur in two stages: within 60 minutes of an Alert ECL or greater, 3 additional qualified RP staff should be available, and within 90 minutes of an Alert ECL, or greater, an additional 3 additional qualified RP staff should be available, and both are typically staffed in the OSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Personnel assigned to perform this function should be fully qualified HP technicians as described in ANSI/ANS-3.1-1993, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants," that was approved for use by Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants."14 Personnel who are typically trained to a level of "meter qualified" to perform basic HP duties are not trained or do not have the necessary experience to perform complex HP duties, as discussed in HPPOS-0238, that would be necessary in a radiological emergency. For example:*

(1) Typically the training does not include providing HP coverage for other personnel.

(2) Radiation protection is not normally incorporated into normal job duties.

(3) Radiological conditions during an emergency may be unknown or rapidly changing.

The following Emergency Plan functions would constitute in-plant protective actions, which would require a fully qualified HP technician:

- *Provide guidance for personnel protection to assist in minimizing personnel exposure.*
- *Provide guidance for exposure authorizations, dose guidelines, and post-exposure assessments.*
- *Provide job coverage for in-plant repair and corrective actions, and operations support, under changing radiological conditions.*
- *Provide guidance for emergency decontamination of personnel, equipment, and facilities.*
- *Provide guidance for personnel contamination control and respiratory protection.*

NUREG-0654 R1 lists the RPT functions assigned to the six augmenting OSC RPTs as:

- In-Plant Surveys
- HP coverage for repair, corrective actions, search, and rescue first aid & firefighting
- Personnel Monitoring
- Dosimetry
- Access Control

These functions have been reworded but remain similar in NUREG-0654 R2 as:

- Provide in-plant surveys
- Provide radiation protection coverage for responders accessing unknown radiological environments during emergency conditions
- Control dosimetry and control area access

The number of augmenting RPTs for the above functions in NUREG-0654 R2 Table B-1 has not changed from the number in NUREG-0654 R1 Table B-1.

The following guidance documents were considered in the staffing of augmenting ERO radiation protection personnel in the common emergency plan:

- Per RIS 2016-10, the licensee could show that the basis for the justification includes the availability of installed area, process, airborne and effluent radiation monitors, automated systems and information technology solutions, and enhanced work processes that would be available under accident conditions. Supporting tools and processes that may be considered include portal monitors, self-alarming dosimeters, and automated access control system for the radiologically controlled area (RCA) that maintain active radiation work permits, which are readily available if an emergency is declared (e.g., the system verifies qualifications, dose margins, and access requirements).

- Per HPPOS-238, Health Physics Technicians (HPTs) may independently perform specific tasks or job assignments if they meet the required prerequisites and complete the required task qualifications of their plant training programs. There are certain tasks and job assignments, however, that require in-depth knowledge and can only be performed by fully qualified ANSI technicians.

NextEra controls the qualification of the ERO as outlined in 10 CFR 50.47(b)(15). To ensure that qualifications are consistent throughout the fleet, the RPQI qualification requirements are maintained in Section O of the proposed emergency plan. The RPQI ERO personnel will be task qualified to the tasks listed in NUREG-0654 Revision 2 Table B-2 (shown above)

This approach meets the intent of 50.47(b)(15) and allows the Systematic Approach to Training (SAT) process to determine and control the RPQI qualification requirements by task. The proposed emergency plan will utilize the SAT process to set the qualification requirements of the RPQI, independent of an ANSI 8.1 standard, while ensuring that all personnel are trained to be able to respond to an emergency – not to be a day-to-day RPT.

Per NUREG-0713, Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities 2004 and Draft Tables and Figures for 2020 NUREG-0713, the Average Measurable TEDE per individual has decreased from 0.31 rem (1995) to 0.09 rem (2020). Advances in technology in access control, electronic dosimetry (personnel monitoring and remote monitoring), pre-developed RWPs (for normal and for emergency conditions), and ARM/PRM plant computer information display systems reduce radiation protection personnel involvement in radiological activities and have contributed to the decrease.

- Dosimetry and access control is established using technological means to ensure that personnel wear the correct dosimetry into the radiological controlled area and are signed onto the RWP (affirming that they have read and understand the RWP). Telemetry with field communications and dosimetry can provide the RP personnel all data that one would have previously needed equipment and multiple personnel to perform.
- On-shift and augmented ERO radiation protection coverage is monitored and provided by radiation protection personnel. The radiation protection personnel ensure that dispatched personnel are provided real time information on radiological conditions when deployed and if conditions change at the work location. In-plant radiological conditions are provided using technology available to the radiation protection personnel on the plant computer information display systems.

As this technology has become more integrated at NextEra sites and throughout the industry for normal and outage operations their use has become common-place. As such, radiation protection personnel that are properly trained on the technology outlined here are proficient with their use in emergency response functions. These enhancements would be used during a radiological emergency.

The OSC utilizes the day-to-day “Fix-It-Now” (FIN) Team concept, which includes radiation protection support as necessary. OSC minimum staffing requires 3 craft personnel. An RPT would monitor plant conditions remotely and assist the Lead OSC Supervisor with RP oversight activities while the other RP personnel (RPTs and RPQIs) could be tasked with providing coverage for craft personnel if a team is dispatched into a radiologically controlled area.

All NextEra sites are Pressurized Water Reactor (PWR) designs. There are fewer radiologically controlled areas at PWRs than at Boiling Water Reactor (BWR), which allows for less RP support staff during normal operations. Per Draft Tables and Figures for 2020 NUREG-0713, the Average Collective Dose per Reactor in 2020 is 31 person-rem at PWRs and 95 person-rem at BWRs. Even with a SG tube rupture using the main condenser as the cooldown medium, the turbine buildings will not be unmanageable with the responders as the major steps of each site's emergency operating procedures for a SG tube rupture will have completed their major functions of "identify – isolate – cooldown – depressurize – terminate safety injection" are expected to be complete prior to ERO arrival. All temperature control steps later in the procedures where the ERO may be present will be minimal temperature control steps which send minimal additional contaminated steam into the secondary systems. As the limiting accident that will expand radioactively controlled/ contaminated areas outside of the radiologically controlled area, there is no need to staff PWR sites at the same level outlined in the NUREG, which factored in BWR designs into their calculations for staffing levels.

The above statements support the position that Radiation Protection function can be performed by the four augmentation radiation protection personnel ERO positions.

3.2.6 **[Potential RIE 1-6]** No On-site Field Monitoring Team

The proposed emergency plan does not staff the onsite field monitoring minimum staff ERO position for the Field Monitoring Teams function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the onsite field monitoring aspect of the Field Monitoring Teams function from two (2) to zero (0). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *The ability to locate, monitor, and track a radioactive plume is important to ensure appropriate protective measures are taken in response to a radiological event. The ability to staff these teams before they may be needed (i.e., before a radiological release) greatly enhances the ability of the licensee to provide timely and accurate PARs.*
>
> - *An onsite FMT should be staffed, consisting of a monitor and a driver. This onsite FMT is responsible for radiological monitoring of the site's Protected Area. …*
>
> *i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.*
>
> *iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.*

NUREG-0654 R2 Table B-1 guidance for augmenting Field Monitoring Team staffing has not changed from NUREG-0654 R1 (six total personnel) despite the technology (equipment and communications) and process advancements in the last 40+ years.

NUREG-0654 R2 designates one on-site (including inside of the Protected Area) Field Monitoring Team and one off-site Field Monitoring Team responding in 60 minutes to be ready to respond to a radiological release or to detect the radiation in the field thus

confirming and quantifying a release. A second off-site Field Monitoring Team responding in 90 minutes is added to back up the first off-site Field Monitoring Team.

On-site Field Monitoring Team Driver ERO Position

On-site survey and sampling activities are performed without a vehicle since the site Protected Area boundaries are relatively small and plume tracking is not applicable. The Protected Area can be easily and efficiently traversed on foot or in a utility vehicle. The survey equipment is portable and does not require two individuals for transport or operation. Thus, there is no need for an on-site Field Monitoring Team Driver.

On-site Field Monitoring Team Technician ERO Position

The current emergency plan utilizes two Field Monitoring Teams, primarily assigned to monitor conditions outside the Protected Area. NextEra typically uses an individual from the pool of OSC radiation protection personnel to perform on-site out-of-plant (inside the Protected Area) surveys if needed. However, one of the two Field Monitoring Teams may be call upon to enter the Protected Area to perform surveys when OSC radiation protection personnel are assigned other tasks.

For NextEra stations, two Field Monitoring Teams are sufficient to perform on-site and off-site field monitoring activities. All NextEra sites are located on major bodies of water (their EPZs being approximately 40% water or greater) with no requirements nor capabilities for monitoring activities on these bodies of water. As each site's EPZ is ~40+% water, there is not as much area to cover for the field monitoring teams. With NextEra EPZs being effectively smaller than landlocked sites, less personnel are needed to cover an effectively smaller EPZ.

Additionally, the NUREG-0654 R2 technical basis for the ERO staffing guidance includes the following clarification:

> *The onsite FMT should not be staffed if the radiological conditions jeopardize the safety of the FMT, typically after a Site Area Emergency has been declared.*

Based upon NRC guidance two Field Monitoring Teams are sufficient to monitor radiological conditions after a SAE is declared. By not designating onsite and offsite FMTs, a total of two FMTs can sufficiently provide radiological monitoring at NextEra stations under all conditions.

3.2.7 **[Potential RIE 1-7]** No OSC RP Supervisor Position

The proposed emergency plan does not include an OSC RP Supervisor minimum staff ERO position to the Supervision of Repair Team Activities function. This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *An … RP Supervisor should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the craft [personnel] resources for the additional 30-minutes prior to the [supervisory] respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).*

The Lead OSC Supervisor is assigned the RP aspect of the Supervision of Repair Team Activities. To ensure that Lead OSC Supervisor position can perform the RP supervision sub-function, their ERO training / qualification program will include previous RP Supervisor experience or will receive training to supervise RP emergency response tasks. See Section O of the proposed emergency plan for the description of the qualification of the Lead OSC Supervisor.

OSC radiation protection personnel responding to the event will report to the Lead OSC Supervisor. With 3 RPTs and 2 RPQIs responding, an RPT can assist the Lead OSC Supervisor and FIN Supervisor with coordination of RP activities needed to dispatch OSC teams, thus not overburdening the Lead OSC Supervisor. If there is a particular question for RP supervision, the TSC RP Coordinator would also be available to answer or coordinate a response to questions.

3.2.8 **[Potential RIE 1-8]** Single Craft Supervisor Position

The proposed emergency plan does not assign OSC maintenance supervisors for each craft. Specifically, this change reduces the number of OSC craft supervisor minimum staff ERO positions used for the Supervision of Repair Team Activities function from three (3) to one (1). This change deviates from the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *An Electrical Supervisor, a Mechanical Supervisor, an I&C Supervisor … should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the craft [personnel] resources for the additional 30-minutes prior to the [supervisory] respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).*

The FIN Supervisor fills the supervisor role for mechanical, electrical and I&C craft disciplines. This is a deviation from NUREG-0654 R2 guidance which only discusses combining Electrical and I&C supervisory roles.

The normal station maintenance organization allows for the management of craft personnel under a single supervisor hierarchy. The position of FIN Supervisor is filled by management and supervisory personnel from the Maintenance Department who are familiar with direction of all disciplines within the department. OSC performance under this organizational structure has been demonstrated in numerous evaluated exercises and remains consistent with the acceptable OSC staffing hierarchy of the current emergency plan.

3.2.9 **[Potential RIE 1-9]** Fewer Craft Responders

The proposed emergency plan reduces the number of Electricians from two (2) to (1) and the number of Mechanics from (2) to one (1) for the Repair Team Activities function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Repair Team Activities function from five (5) to three (3). This change deviates from the current emergency plan minimum staff ERO position requirements.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *A minimum number of maintenance personnel should respond to an event as part of the ERO, with more personnel available on an as-needed basis depending on the event. The augmentation (support) of the electrician and mechanic positions should occur within 60-minutes of an Alert ECL, (or greater), and is typically staffed in the OSC. The augmentation (support) of the I&C position should occur within 90-minutes of an Alert ECL, or greater, and is typically staffed in the OSC.*

Maintenance personnel are not assigned specific ERO response tasks in the proposed emergency plan. Maintenance personnel designated as minimum augmenting ERO are used as needed for skill of craft tasks.

Staffing for events which involve extensive damage have been analyzed in accordance with NEI 12-01 and are addressed under FLEX requirements.

This change is consistent with the staffing plan of NUREG-0654 R2.

3.2.10 **[Potential RIE 1-10]** No IT Technician ERO Positions

The proposed emergency plan does not assign IT Technicians in the TSC and EOF/JIC. Specifically, this change reduces the number of IT Technicians minimum staff ERO positions used for the Information Technology function from two (2) to zero (0). This change deviates from the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *Advances in technology have led to significant enhancements in many areas of emergency response, such as communications, monitoring, displays, digital procedures, etc. Licensees should consider the use of this technology whenever it enhances their ability to protect the health and safety of the public. However, if the implementation of the emergency plan is so reliant on this technology that without it, the emergency plan could not be implemented, then an IT Lead should augment (support) the response within 60-minutes of an Alert ECL, or greater, if the TSC/OSC has this technology; and within 60-minutes of an SAE ECL, or greater, if the EOF or JIC/JIS has this technology. If the licensee has capable backup plans for if/when this technology fails, then this function is not necessary. In other words, if the ERO is reliant upon technology such that its loss would prevent the ERO from functioning, then a support position should be part of the ERO to assist in recovery of this technology. If the loss of this technology would lead to the implementation of backup strategies, then this position would not need to be part of the ERO and can be called upon as-needed. Licensees should consider using the listing of critical digital assets, identified in accordance with 10 CFR 73.54, as the basis for determining if this position should be considered part of the EROs augmented response.*

Per NUREG-0654 R2, minimum staff ERO IT positions are only required to be described in the emergency plan if critical digital assets (CDAs) are identified per 10 CFR 73.54, Protection of digital computer and communication systems and networks. The proposed emergency plan relies on DCS/ERDADS for monitoring plant parameters, which has been determined to be a CDA. The IT process for addressing issues with CDAs operates full time outside the emergency plan on a 24/7 basis. Additionally, NextEra

maintains an IT Help Desk 24 hours per day, 7 days a week. Many computer issues are addressed remotely with an IT specialist through the Help Desk.

Each of the EP related digital assets were evaluated as part of implementation of the Cyber Security Rule, 10 CFR 73.54(b). Under NEI 13-10, "Cyber Security Control Assessments," EP Critical Digital Assets have been assessed and controls have been put in place to protect the assets against cyber-attack. In conjunction with these controls, alternate administrative, non-digital, or adequately independent means have been put in place for performing each EP function, should the digital component or program fail.

Performance of digital equipment used by EP has shown to be acceptable during drills and exercises, and through routine inventory and surveillance checks. Performance of digital assets is monitored through either the Corrective Action Program (CAP) or the drill and exercise critique process. Performance trends are monitored, corrective actions are issued, and compensatory measures are taken as necessary.

With the IT department process for 24/7 coverage and built-in redundancy for communication systems and digital EP assets, NextEra has identified that there is no need to maintain an IT Technicians as minimum staff ERO positions.

3.3 ERO Augmentation Analysis

The ERO Augmentation Analysis compares and evaluates the current emergency plan on-shift and minimum staff ERO positions against those in the proposed emergency plan and in NUREG-0654 R2 guidance. Augmentation deviations in the proposed emergency plan from the current emergency plan and NUREG-0654 R2 are categorized as potential RIEs and evaluated to determine whether the timeliness to perform the function is sustained without overburden of the on-shift staff.

Refer to Attachment 1, ERO Staffing Plan Comparison Table, for a side-by-side summary staffing and augmentation comparison between NUREG-0654 R2 Table B-1, the current emergency plan, and the proposed emergency plan.

NUREG-0654 R2 establishes 60 and 90-minute minimum staff ERO augmentation time requirements for the TSC and OSC positions at the Alert emergency classification level; and a 60-minute minimum staff ERO augmentation time requirement for the EOF at the Site Area Emergency classification level.

The current emergency plan follows a 30 / 60-minute augmentation scheme as approved by the NRC with the following main elements:

- All ERO personnel are notified at the Unusual Event emergency classification level (response to facilities is elective for the Shift Manager), and called out to respond to their assigned facility at the Alert emergency classification level.
- The TSC and OSC are required to be activated at the Alert emergency classification level.
- The EOF is required to be activated at the Site Area Emergency classification level.
- The JIC is activated as soon as possible at an Alert or higher emergency classification level when determined appropriate with the offsite agencies, and whenever the EOF is activated.

The proposed emergency plan follows a 60 and 90-minute augmentation scheme with the following main elements:

- All ERO personnel are notified at the Unusual Event emergency classification level (response to facilities is elective for the Shift Manager), and called out to respond to their assigned facility at the Alert emergency classification level.
- The TSC, OSC, and EOF are activated at the Alert emergency classification level.
- NextEra implements JIS practices that are capable of performing the media information function at all emergency classification levels.
- The near-site JIC is activated when determined appropriate with the offsite agencies (at an Alert or higher emergency classification level).

The ERO augmentation analysis concludes that the differences in times between the proposed common emergency plan 60 and 90 minute response criteria and the NUREG-0654 R2 60 and 90 minute response criteria does not adversely delay turnover of responsibilities or negatively impact/overburden the ability of the on-shift personnel to perform operational actions or key functions. This alternate staffing approach continues to maintain initial facility accident response in all key functional areas at all times and provides timely augmentation of response capabilities.

3.3.1 **[Potential RIE 2-1]** Site Emergency Director at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time for the Site Emergency Director minimum staff ERO position that performs the Command and Control function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *This function is typically assigned to the Operations Shift Manager (OSM). The augmentation (relief) of this position is intended to relieve the OSM of EP functions so that the OSM can focus on the event response from an operations perspective. This should occur within 60-minutes of an Alert ECL declaration, or greater, and is typically a position staffed within the TSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Per the guidance in NUREG-0654, Table B-1, an augmented "Senior Manager" should fulfill the "Emergency Operations Facility Director" major task at 60 minutes. A licensee requesting a change in staff augmentation requirements that would have the lead manager unavailable to assume command and control within 60 minutes of the initial emergency declaration should show that the on-shift staff includes enough qualified supervision such that one supervisor will assume the emergency director role. The licensee should show that the on-shift supervisor performing the manager actions will not have any additional duties (e.g., each unit under the direction of a unit supervisor, a shift manager providing oversight of the plant response, and a designated emergency director responsible for emergency plan implementation).*

The Shift Manager is given overall command and control with regard to ERO response activities. The position is used to perform Emergency Classification Level (ECL) determinations and develop Protective Action Recommendations (PARs), and to direct or perform ORO notification.

Historically, actual events have resulted in single ECL declarations with no further escalation. Realistic event progression that challenges multiple fission product barriers is relatively slow as demonstrated by the events at TMI and Fukushima. In this case, immediate plant operations and ERO response actions occur with 60 minutes of actual events and the on-shift staff are not burdened (tested) with multiple classifications.

Planning for a wide range of events, including rapidly progressing severe accidents (RPSA) is also required. These “fast breaker” events rise to the SAE or GE classification level without progressing through the lower ECLs. In this case, immediate plant operations and ERO response actions occur with 60 minutes of the RPSA scenario and the on-shift staff are not burdened (tested) with multiple classifications.

Event scenarios that do required escalation of the ECL prior to ERO augmentation are included in drills and exercises for the on-shift ERO. Technology and process enhancements including communications (ERNIE), ERDS, EAL matrix, PAR flowchart, etc. have reduced the time and attention it takes to perform tasks along with enhancing the effectiveness and efficiency of task performance. In addition, NUREG-0654 R2 has added a Classification Advisor position to assist and work in coordination with the Shift Manager, which NextEra has included as a collateral duty in the on-shift complement.

All Initiating Conditions (ICs) need to be demonstrated within the 8-year cycle. All Unusual Event and Alert level ICs are preformed from the Control Room. Thus, the opportunities for the Shift Manager to demonstrate the ability to perform emergency and operations responsibilities are provided multiple times over the 8-year cycle.

The demonstration and evaluation of the Shift Manager to perform their emergency plan functions is continuously evaluated during emergency planning drills/exercises and operations training simulator sessions. Various scenarios are used to evaluate the Shift Manager’s ability to perform the following emergency planning functions, technical specification responsibilities and operations oversight.

Operations training simulator sessions test and evaluate the Shift Manager’s ability to effectively and efficiently perform all required functions / responsibilities until the event is stabilized (session is complete); this in some circumstances is greater than the 90 minutes ERO response time. Note – there is no minimum required length of time for the training sessions.

Licensed Operator Continuing (LOR) training periodically has scenarios that extend to 90 minutes without augmented ERO involvement. For example, a training scenario is performed on a periodic basis to ensure that a FLEX Beyond Design Basis External Event can be mitigated by the minimum on-shift staff. The FLEX scenario assumes that the ERO will not be on site to provide support for a minimum of 6 hours. While this is covered under 10 CFR 50.155 and not Appendix E, the example is given as a major event where augmented ERO response is not provided while the site compliment is under heavy demand for action to mitigate the event.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for at least 90 minutes. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Command and Control function out to 120 minutes.

The Site Emergency Director 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the Command and Control function.

3.3.2 **[Potential RIE 2-2]** Classification Advisor at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC Classification Advisor minimum staff ERO position that performs the Emergency Classifications function. This change deviates from the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC.*
>
> *Maintaining the ability to perform this function at all times ensures that ECL decisions, and as applicable, the PAR decisions, are timely and accurate as these decisions have a direct relationship to public health and safety from the consequences of a radiological event. This function shall work in coordination with the OSM, or Emergency Coordinator, depending on which position is in command and control, and as a result should be available on shift and in the TSC.*

The on-shift Classification Advisor is given a limited role with regard to ERO response activities. The position is used to second check Emergency Classification Level (ECL) determinations and Protective Action Recommendations (PARs) developed by the Shift Manager, and to support ORO notification information accuracy. The on-shift Classification Advisor has received training to perform their assigned EP functions and assist the Shift Manager with emergency responsibilities.

Historically, actual events have resulted in single ECL declarations with no further escalation. Realistic event progression that challenges multiple fission product barriers is relatively slow as demonstrated by the events at TMI and Fukushima. In this case, immediate plant operations and ERO response actions occur with 60 minutes of actual events and the on-shift staff are not burdened (tested) with multiple classifications.

Planning for a wide range of events, including rapidly progressing severe accidents (RPSA) is also required. These “fast breaker” events rise to the SAE or GE classification level without progressing through the lower ECLs. In this case, immediate plant operations and ERO response actions occur with 60 minutes of the RPSA scenario and the on-shift staff are not burdened (tested) with multiple classifications.

Event scenarios that do required escalation of the ECL prior to ERO augmentation are included in drills and exercises for the on-shift ERO. Technology, process and procedure enhancements to classification, notification and PAR development (such as Emergency Response Notification for Incidents and Events (ERNIE), ERDS, EAL matrix, PAR flowcharts, etc.) have simplified response activities and enhanced the effectiveness and efficiency of task performance. The on-shift Classification Advisor position’s ability to

perform second checks specifically benefits from these advancements such that continuation of their ERO related tasks from 60 to 90 minutes is not a burden.

All Initiating Conditions (ICs) need to be demonstrated within the 8-year cycle. All Unusual Event and Alert level ICs are preformed from the Control Room. Thus, the opportunities for the on-shift Classification Advisor to demonstrate the ability to perform emergency and operations responsibilities are provided multiple times over the 8-year cycle.

The demonstration and evaluation of the on-shift Classification Advisor to perform their emergency plan functions is continuously evaluated during emergency planning drills/exercises and operations training simulator sessions. Various scenarios are used to evaluate the on-shift Classification Advisor's ability to perform the following emergency planning functions, technical specification responsibilities and operations oversight.

Operations training simulator sessions test and evaluate the on-shift Classification Advisor's ability to effectively and efficiently perform all required functions / responsibilities until the event is stabilized (session is complete); this in some circumstances is greater than the 90 minutes ERO response time. Note – there is no minimum required length of time for the training sessions.

Licensed Operator Continuing (LOR) training periodically has scenarios that extend to 90 minutes without augmented ERO involvement. For example, a training scenario is performed on a periodic basis to ensure that a FLEX Beyond Design Basis External Event can be mitigated by the minimum on-shift staff. The FLEX scenario assumes that the ERO will not be on site to provide support for a minimum of 6 hours. While this is covered under 10 CFR 50.155 and not Appendix E, the example is given as a major event where augmented ERO response is not provided while the site compliment is under heavy demand for action to mitigate the event.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for at least 90 minutes. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Emergency Classifications function out to 120 minutes.

Establishing the 90-minute augmentation requirement for the TSC Classification Advisor minimum staff ERO position does not impact the capability or timeliness to perform the Emergency Classifications function or overburden the on-shift position.

3.3.3 **[Potential RIE 2-3]** ORO Communicator at 90 Minutes

The proposed emergency plan adds 60 minutes (30 for NUREG-0654 guidance) to the augmentation response time to the TSC ORO Communicator minimum staff ERO position that performs the State/County notifications aspect of the Communications function. This change deviates from the current emergency plan 30-minute ERO response time requirements and NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this position should occur within 60-minutes of an Alert ECL, or greater, and is intended to relieve the on-shift staff of this EP function. This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *To adequately support the elimination or extension of the two 60-minute responders, the licensee should show that two on-shift positions are identified to fill the 60-minute responder's role to "Notify licensee, State, local and Federal personnel [and] maintain communication." The licensee should show that these positions are not assigned other tasks that may prevent the timely performance of their assigned notification or communication functions, as specified in the emergency plan. The licensee should discuss how communication technologies employed by the proposed on-shift staff will support timely, effective, and reliable notifications. Additionally, the communications technologies should be referenced in the emergency plan to ensure that future changes are reviewed using the RG 1.219 change process, as they were used as the basis for the proposed change.*

Technology advancements of Emergency Response Notification for Incidents and Events (ERNIE) allows a streamlined process for ERO notification and ORO notification. Specifically, the technology advancements have enhanced initial notification to the ORO by using an electronic system that contacts the ORO warning points and emergency management staff via email, text and verbal computer-generated voice communications, thus eliminating the need for a communicator to perform the verbal portion of the initial notification.

ORO activation occurs from the site's warning points based upon the initial notification form information. The forms are negotiated and approved with OROs to provide information needed to make initial response decisions. As such, there should be minimal need for OROs to request additional information from the site Communicators. ERNIE provides the site with validation that the information has been received by the OROs.

If any the OROs need additional information prior to ERO activation (90 minutes), the NextEra control rooms are equipped with speaker and/or headset phones which aid the in the performance of the communication function. The technical advancement allows personnel to perform the communication task without negatively impacting the performance of other emergency plan or operations responsibilities.

NextEra has added a drill/ exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for 90 minutes as a verification that the shift can perform their function with no assistance. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the NRC notifications aspect of the Communications function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the State/County notifications aspect of the Communications function. The OROs concur with the NextEra Common

Emergency Plan changes including the 90-minute ERO augmentation (refer to Enclosure 10).

3.3.4 **[Potential RIE 2-4]** ENS Communicator at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC ENS Communicator minimum staff ERO position that performs the NRC notifications aspect of the Communications function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this position should occur within 60-minutes of an Alert ECL, or greater, and is intended to relieve the on-shift staff of this EP function. This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *To adequately support the elimination or extension of the two 60-minute responders, the licensee should show that two on-shift positions are identified to fill the 60-minute responder's role to "Notify licensee, State, local and Federal personnel [and] maintain communication." The licensee should show that these positions are not assigned other tasks that may prevent the timely performance of their assigned notification or communication functions, as specified in the emergency plan. The licensee should discuss how communication technologies employed by the proposed on-shift staff will support timely, effective, and reliable notifications. Additionally, the communications technologies should be referenced in the emergency plan to ensure that future changes are reviewed using the RG 1.219 change process, as they were used as the basis for the proposed change.*

Technology advancements using continuous live ERDS transmission and Emergency Response Notification for Incidents and Events (ERNIE) allows a streamlined process for NRC notification. Specifically, the technology advancements have enhanced the NRC Headquarters Operations Office (HOO) initial notification by using an electronic system that contacts the HOO.

The shift communicator is able to communicate immediately, not to exceed 1 hour, with the NRC HOO to provide real time information and an open line if desired. The NextEra control rooms are equipped with speaker and/or headset phones which aid the shift communicator in the performance of the communication function. The technical advancement allows personnel to perform the communication task without negatively impacting the performance of other emergency plan or operations responsibilities.

This technology allows for a single communicator to perform as the NRC communicator and have collateral duties throughout the additional 30 minutes until relieved by the TSC ENS Communicator.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for

90 minutes as a verification that the shift can perform their function with no assistance. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the NRC notifications aspect of the Communications function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the NRC notifications aspect of the Communications function.

3.3.5 **[Potential RIE 2-5]** TSC RP Coordinator at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC RP Coordinator minimum staff ERO position that performs the Supervision of Radiation Protection Staff and Site Radiation Protection function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *This function is important for effective emergency response to a radiological event because the management of RP resources, and the assistance this position provides the Emergency Coordinator, is crucial for response to radiological events. Radiological events can be very significant and constantly evolving, and require significant expertise in radiation and radiological consequences. The evaluation of radiological events, and the development of effective protective action recommendations, requires this expertise to support the Emergency Coordinator in making these decisions. This position is also responsible for the direction and protection of FMTs. The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC.*

The TSC Radiation Protection Coordinator relieves the Shift Manager of the Supervision of Radiation Protection Staff and Site Radiation Protection function.

On-shift radiation protection personnel respond to abnormal radiological conditions, including Area Radiation Monitor and Process Radiation Monitor alarms, in accordance with RP procedures and report their actions and information to the Shift Manager, with little or no required supervision. Other on-shift radiation protection personnel emergency functions/responsibilities are performed without the need for direct supervision of the Shift Manager.

Technology and process enhancements in radiation protection including dosimetry and personnel monitoring have reduced the on-shift RP task burden by allowing operations and other non-RP shift personnel to perform most activities without the need for dedicated RP coverage. Thus, the need for the Shift Manager to coordinate RP coverage activities is significantly reduced.

The 90-minute response for OSC maintenance and radiation protection personnel credits the enhancement of the NextEra FLEX equipment and strategies. By accounting for FLEX equipment and strategies that eliminate or prolong the onset of core damage and any radiological release of activity the RP challenges are simplified and the need for a 60 minute radiation protection personnel response, and thus a 60 minute Radiation

Protection Supervision response is diminished. Coordination of RP supervision response time with full TSC and OSC augmentation provides for a less complicated transition of responsibilities.

NextEra has added a drill/ exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for 90 minutes as a verification that the shift can perform their function with no assistance. This includes the Shift Manager directing and supervising RP functions and activities.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Supervision of Radiation Protection Staff and Site Radiation Protection function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the Supervision of Radiation Protection Staff and Site Radiation Protection function.

3.3.6 **[Potential RIE 2-6]** Dose Assessors at 60 and 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Dose Assessor minimum staff ERO positions that perform the Dose Assessments / Projections function. This change deviates from the current emergency plan 30-minute ERO response time requirements.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC. For an SAE ECL, or greater, this. position should be staffed in the EOF as the EOF is primarily intended to coordinate with offsite response officials when developing protective action strategies for the public.*
>
> *Maintaining the ability to perform dose assessments/projections at all times ensures that the consequences of a radiological event, to the public, are effectively mitigated by providing timely dose related information to the Emergency Coordinator (TSC) or Emergency Director (EOF) depending on which position is in command and control. As a result, this position (function) is expected to be available on shift, in the TSC, and in the EOF depending on the ECL declared.*

The Remote Dose Assessor will relieve the on-shift Dose Assessor within 60 minutes of event declaration of an Alert or higher emergency classification level. The EOF Dose Assessor is available to perform their dose assessment functions within 90 minutes of event declaration of an Alert or higher emergency classification level.

Additionally, personnel qualified as on-shift Dose Assessors are trained in dose assessment for all NextEra sites such that an unaffected site shift Dose Assessor could be called upon to support dose assessment activities at an affected unit prior to ERO activation.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Dose Assessments / Projections function out to 120 minutes.

The proposed emergency plan conforms to the NUREG-0654 R2 augmentation response time criteria for the Dose Assessments / Projections function.

3.3.7 **[Potential RIE 2-7]** Radiation Protection Personnel at 90 Minutes

The proposed emergency plan adds 60 minutes (30 for NUREG-0654 guidance) to the augmentation response time to the radiation protection personnel minimum staff ERO positions that perform the Radiation Protection function. This change deviates from the current emergency plan 30-minute ERO response time requirement and NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for augmenting radiation protection personnel states that:

> *While not all Alert ECLs (or lower) have radiological consequences, licensees should develop their ERO staffing plans for a worst-case scenario from a radiological risk perspective, i.e., an event which results in the immediate (within 60-minutes) loss of 2 or more fission product barriers leading to significant and unknown radiological conditions. The augmentation (support) of this position should occur in two stages: within 60 minutes of an Alert ECL or greater, 3 additional qualified RP staff should be available, and within 90 minutes of an Alert ECL, or greater, an additional 3 additional qualified RP staff should be available, and both are typically staffed in the OSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Radiation protection personnel perform multiple roles during normal and emergency plant operations. These roles include access control, personnel monitoring, and dosimetry, in addition to HP coverage for repair and corrective actions, search and rescue, first aid, and firefighting during emergency response operations. Per the guidance in Table B-1 of NUREG-0654, there should be two augmented responders at 60 minutes for the major task of "Radiation Protection." To adequately support an extension in response timing of the two radiation protection 60-minute responders to 90 minutes, the licensee should show that the on-shift HP staffing includes as a minimum, four HP technicians in total for the site. The extra HP technicians are needed for in-plant protective actions for the other personnel added to the on-shift staffing to compensate for the extension in augmentation time, and to assess any off-site releases of radioactive materials. Additionally, the licensee request should demonstrate that on-shift HP technicians will be relieved of the need to perform access control, personnel monitoring, and dosimetry-related tasks, thereby freeing these personnel to cover vital response activities (e.g., HP coverage for repair and corrective actions, search and rescue, first aid, and firefighting). NRC staff will consider whether the basis for the justification includes the availability of installed area, process, airborne and effluent radiation monitors, automated systems and information technology solutions, and enhanced work processes. The licensee should include supporting tools and processes that will be considered such as portal monitors, self-alarming dosimeters, and automated access control systems for the RCA that maintain active radiation work permits that are readily available if an emergency is declared (e.g., the system verifies qualifications, dose margins, and access requirement).*

Three (3) RP Technician and two (2) RP Qualified Individual 90-minute minimum staff ERO positions report to the Lead OSC Supervisor and provides radiation protection support.

Through equipment, process, and training enhancements the on-shift staff can initially respond to Design Basis and Beyond Design Basis (BDB) events without the support of an augmented ERO. As codified by 10 CFR 50.155, NextEra FLEX equipment provides the on-shift staff with additional resources when installed plant equipment is lost or damaged. Generally, FLEX provides portable backup equipment onsite that can be used to supplement or replace installed plant equipment in maintaining long-term core cooling, spent fuel cooling, and containment integrity. Movement of FLEX equipment, including installation into plant systems and its operations (electrical, fluid, etc.) is performed by on-shift personnel.

Due to the availability of FLEX equipment, NextEra stations have diverse protection against loss of ECCS capability and other systems, which provides a basis for determination that no immediate ECCS repair and corrective actions are likely necessary for on-shift personnel prior to augmentation of maintenance personnel. The FLEX/BDB process and equipment, and the operating emergency procedures (EOP, AOP, etc.) are designed to be implemented with the minimum shift staff. By accounting for FLEX equipment and strategies that eliminate or prolong the onset of core damage and any radiological release of activity the RP challenges are simplified and the need for a 60 minute radiation protection personnel response is diminished.

The NEI 12-01 based staffing analysis performed for using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Radiation Protection function out to 6 hours for design basis and other ER related events.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Radiation Protection function out to 120 minutes for design basis and other ER related events.

3.3.8 **[Potential RIE 2-8]** Both Offsite FMTs at 90 Minutes

The proposed emergency plan adds 60 minutes (30 for NUREG-0654 guidance) to the Field Monitoring Team minimum staff ERO positions that performs the offsite field monitoring aspect of the Field Monitoring Teams function.

This change deviates from the current emergency plan 30-minute ERO response time requirement and NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

- *An offsite FMT should be staffed, consisting of a monitor and a driver. This offsite FMT is responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples as necessary (air, water, vegetation, etc.). This team should be staffed within 60-minutes of an Alert ECL, or greater, in order to be ready to respond to a radiological release, or to detect radiation in the field thus confirming and quantifying the release. This supports the applicable PAR decision-makers in developing effective PARs.*

  i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

  iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.

- *Another offsite FMT should be staffed, consisting of a monitor and a driver. This offsite FMT is also responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples (air, water, vegetation, etc.). This team should be staffed within 90-minutes of an Alert ECL, or greater, in order to be ready to respond to a radiological release, or to detect radiation in the field thus confirming and quantifying the release. This supports the applicable PAR decision-makers in developing effective PARs. An additional 30-minutes in response is acceptable in that this second FMT is a backup to the first FMT, and while both FMTs are expected to respond to an event to better coordinate radioactive plume tracking action(s), allowing for an additional 30-minutes provides licensees some flexibility in staffing this ERO function without compromising the reasonable assurance finding in accordance with 10 CFR 50.47(a).*

  i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

  iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Per the guidance of NUREG-0654, Table B-1, there should be four augmented responders at 60 minutes—two for off-site surveys, one for on-site surveys, and one for in-plant surveys. To adequately support an extension of these responders to 90 minutes, the licensee should show that the on-shift HP staffing includes a minimum of four HP technicians in total for the site. The licensee should demonstrate that two HP technicians, in excess of the number evaluated previously for extending the 30-minute responders, are available for in-plant protective actions for the other maintenance personnel that need to be added to the on-shift staffing to compensate for the extension in augmentation time for the major task of "Repair and Corrective Actions," and to perform surveys to assess any off-site release of radioactive materials.*

NextEra off-site Field Monitoring Team augmentation is 90 minutes for both teams versus one team at 60 minutes and one team at 90 minutes.

FLEX equipment and strategies eliminate or prolong the onset of core damage and any radiological release of activity, and thus simplify the RP challenges and diminish the need for a 60 minute Field Monitoring Team response.

The 60 minute response basis for the first off-site Field Monitoring Team is to be ready to respond to a radiological release, or to detect radiation in the field for any ECL at an Alert or above. NextEra provides dedicated vehicles and equipment to facilitate the rapid deployment of personnel upon their arrival.

- Vehicles are maintained and fueled such that the Field Monitoring Team Driver is only required to perform a quick walk-around safety check before operating.
- Equipment/supply kit inventories are administratively maintained so that Field Monitoring Team personnel are not required to verify contents or perform lengthy equipment checks.
- Vehicles and equipment are stored together in a location that facilitates rapid deployment outside the Protected Area.
- Initial Field Monitoring Team deployment strategy locates personnel in downwind areas near the site boundary prior to a release that promptly supports EAL identification and PAR determination.

This pre-staging and readiness of Field Monitoring Team resources significantly reduces the time it takes personnel to be ready to respond to and identify a radiological release, thus also facilitating a 90 versus 60 minute augmentation response time.

3.3.9 **[Potential RIE 2-9]** Reactor Engineer at 60 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Reactor Engineer minimum staff ERO position that performs the Engineering function. This change deviates from the current emergency plan 30-minute ERO response time requirement.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO guidance states that:

> *The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC ….*
>
> *An engineer to provide expertise in electrical/instrumentation and control (I&C) systems and equipment supports the evaluation of these systems/equipment and supports the development of repair plans if necessary. The augmentation (support) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC….*
>
> *An engineer to provide expertise in mechanical systems and equipment supports the evaluation of these systems/equipment and supports the development of repair plans if necessary. The augmentation (support) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC….*

The proposed emergency plan conforms to the NUREG-0654 R2 augmentation response time criteria for the Engineering function.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Engineering function out to 120 minutes.

3.3.10 **[Potential RIE 2-10]** OSC Supervisors at 90 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time for the Lead OSC Supervisor and FIN Supervisor minimum staff ERO position that performs the Supervision of Repair Team Activities function. This change deviates from the current emergency plan 60-minute ERO response time requirement for the OSC Manager and OSC Supervisor, and the NUREG-0654 R2 60-minute ERO response time guidance for the Lead OSC Supervisor.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *An Electrical Supervisor, a Mechanical Supervisor, an I&C Supervisor, and an RP Supervisor should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the maintenance resources for the additional 30-minutes prior to the specific craft (mechanical, electrical, or I&C) respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).*

FIN Supervisor

Moving the FIN Supervisor from 60 minutes (current emergency plan) to 90 minutes (proposed emergency plan) conforms to NUREG-0654 R2.

Lead OSC Supervisor

Operations staff are currently trained with basic troubleshooting skills for support of all EOP and abnormal response procedure actions. Supervision of these actions are performed by the Shift Manager and Unit Supervisors regardless of augmented ERO staffing. There is no need for the ERO to relieve the shift of this responsibility.

The Flex/B.5.b process and equipment, and the operating emergency procedures (EOP, AOP, etc.), are designed to be implemented by the minimum on-shift staff. Through technological and process enhancements, the on-shift staff can cope with an event (Design Basis and Beyond Design Basis) initially without an ERO as analyzed in detail for other non-EP regulatory requirements. With FLEX/B.5.b processes and equipment codified by 10 CFR 50.155 into plant response procedures, on-shift personnel have the capability for mitigating core damage from design or beyond design basis events.

Based on this, OSC personnel are used primarily for repair activities, with operations personnel focus on mitigating activities per the EOPs and other event procedures.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Supervision of Repair Team Activities function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan for the Lead OSC Supervisor does not impact the capability or timeliness to perform the Supervision of Repair Team Activities function.

3.3.11 **[Potential RIE 2-11]** OSC Craft at 90 minutes

The proposed emergency plan adds 30/60 minutes to the augmentation response time of OSC craft minimum staff ERO positions that perform the Repair Team Activities function. This change deviates from the current emergency plan 30 and 60-minute ERO response time requirements and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *… a minimum number of maintenance personnel should respond to an event as part of the ERO, with more personnel available on an as-needed basis depending on the event. The augmentation (support) of the electrician and mechanic positions should occur within 60-minutes of an Alert ECL, (or greater), and is typically staffed in the OSC. The augmentation (support) of the I&C position should occur within 90-minutes of an Alert ECL, or greater, and is typically staffed in the OSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Table B-1 of NUREG-0654 calls for the addition of one "Mechanical Maintenance," one "Rad Waste Operator," and an added "Electrical Maintenance" person within 60 minutes. To adequately support an extension of the response time for these responders, the licensee should demonstrate that the responsibilities of these positions can be covered with on-shift staff or earlier responders.*

Operations Emergency Operating Procedures have been developed to provide direction for a wide range of events described in the FSAR that uses operators to place the plant in a safe and stable condition. Maintenance personnel are not called upon in the response stage of an event as repair activities are taken after immediate EOP response actions.

Through equipment, process, and training enhancements the on-shift staff can initially respond to Design Basis and Beyond Design Basis (BDB) events without the support of an augmented ERO. As codified by 10 CFR 50.155, NextEra FLEX equipment provides the on-shift staff with additional resources when installed plant equipment is lost or damaged. Generally, FLEX provides portable backup equipment onsite that can be used to supplement or replace installed plant equipment in maintaining long-term core cooling, spent fuel cooling, and containment integrity. Movement of FLEX equipment, including installation into plant systems and its operations (electrical, fluid, etc.) is performed by on-shift personnel.

Due to the availability of FLEX equipment, NextEra stations have diverse protection against loss of ECCS capability and other systems, which provides a basis for determination that no immediate ECCS repair and corrective actions are likely necessary for on-shift personnel prior to augmentation of maintenance personnel. The FLEX/BDB process and equipment, and the operating emergency procedures (EOP, AOP, etc.) are designed to be implemented with the minimum shift staff. By accounting for FLEX equipment and strategies that eliminate or prolong the need for equipment and systems repair the maintenance challenges are simplified and the need for a 60 minute craft personnel response is diminished.

The NEI 12-01 based staffing analysis performed for using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Repair Team Activities function out to 6 hours for design basis and other ER related events

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Repair Team Activities function out to 120 minutes for design basis and other ER related events.

3.3.12 **[Potential RIE 2-12]** Security Liaison at 90 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Security Liaison minimum staff ERO position that perform the Security function. This change deviates from the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The licensee's Security Force is controlled and maintained by the licensee's NRC-approved physical security plan and does not need to be reflected in the Emergency Plan. However, the establishment of a Security Liaison position in the TSC is advantageous to ensure effective coordination between the security force and the ERO, particularly for events where offsite resources are necessary as well as for security related events and site personnel accountability. The augmentation (support) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed by a Security Liaison in the TSC to coordinate security-related activities with that of the ERO.*

The site-specific Physical Security Plan (PSP) defines on-shift security staffing. This PSP staffing supports initial event response, either security or emergency plan related. The Security Shift Supervisor communicates directly with the Shift Manager informing them of security related actions and conditions. This communication does not change with the augmentation of the ERO.

Following the transfer of command and control, the Security Liaison position coordinates security and emergency related communications and response actions between the Site Emergency Director and the security force. The Security Liaison position provides communication and coordination resources that are not needed until the TSC and OSC are augmented at the 90 minute point in time.

3.4 ERO Task Analysis

No deviations were identified in the task analysis.

The ERO Task Analysis indicates, based on tasks assignments, that the capability to perform emergency plan functions will continue to be met without overburdening the ERO positions in the proposed emergency plan.

3.4.1 Major Process and Task Re-Assignment Changes

The major process and task re-assignments are associated with the following:

1) Activation of the TSC, OSC, EOF emergency response facilities occur at the Alert emergency classification level.
2) The remote Dose Assessor and three remote Engineering ERO positions requires a 60 minute response time. All other minimum staff ERO positions require a 90 minute response time.
3) The Command and Control function, along with all non-delegable responsibilities, are transferred from the Shift Manager to the Site Emergency Director and remain in the TSC throughout a declared emergency.
4) The Lead OSC Supervisor is also assigned the responsibilities of the OSC RP Supervisor.
5) The EOF provides dose assessment, offsite field monitoring and HPN communication, as well as material and logistics support to the Site Emergency Director for the overall site response.
6) The JIS function is provided by site response and corporate response, with support from corporate communications personnel. The EOF and near site JIC remain located within the same near-site building.
7) IT support for emergency response will be provided by the normal NextEra IT 24-hour support process. This aligns with the practice currently used to support Critical Digital Assets during normal operations.

3.4.2 On-Shift ERO Positions

NUREG-0654 R2 revised the staffing plan to remove on-shift positions not directly associated with key function areas having emergency plan response task assignments.

On-shift ERO positions remaining in or added to the emergency plan are as follows:

- Shift Manager
- RPT/RPQI
- Security Shift Supervisor
- Shift Technical Advisor (as a collateral duty)
- Shift Classification Advisor (as a collateral duty)
- Shift Communicator (as a collateral duty)
- Shift Dose Assessor (as a collateral duty)

On-shift ERO positions removed the emergency plan are as follows:

- Unit Supervisor
- Reactor Operator

- Auxiliary Operator
- Rad/Chem Technician
- Fire Brigade

3.4.3 Minimum Augmenting ERO Positions

Minimum augmenting ERO positions remaining in or added to the emergency plan are as follows:

TSC
- Site Emergency Director (previously Emergency Coordinator)
- TSC Classification Advisor (previously non-minimum staff Emergency Ops Coord)
- TSC RP Coordinator (previously RP Supervisor)
- ORO Communicator
- ENS Communicator (previously non-minimum staff)
- Reactor Engineer
- Electrical/I&C Engineer (previously Electrical Engineer)
- Mechanical Engineer
- Security Liaison

OSC
- Lead OSC Supervisor (previously OSC Manager)
- FIN Supervisor (previously OSC Supervisor)
- RPT/RPQI
- Electrician
- I&C Technician
- Mechanic

EOF
- EOF Manager (previously Recovery Manager)
- EOF Dose Assessor
- Remote Dose Assessor
- FMT Technician (previously Offsite Monitoring Personnel)
- FMT Driver (previously Offsite Monitoring Personnel Driver)
- EOF RP Coordinator (previously Dose Assessment Specialist)

JIC
- Site JIS Manager (previously JIC Manager)
- Site JIS Coordinator
- Remote JIS Manager (previously Corporate JIC Manager)

3.4.4 Non-Minimum Augmenting ERO Positions (Support Positions)

Non-minimum augmenting ERO positions that remain in the implementing procedures will be notified at an Alert emergency classification level, at the same time as the minimum augmenting ERO. However, non-minimum augmenting ERO positions are not required to be present to activate the facility and do not relieve the on-shift ERO of any EP responsibilities. Non-minimum augmenting ERO positions have no augmentation time requirement.

Non-minimum augmenting ERO positions are being removed from the emergency plan, but retained in the Emergency Plan Implementing Procedures (EPIPs). The tasks assigned to the non-minimum augmenting ERO positions in the current emergency plan were reviewed against current NRC guidance to ensure tasks for key functional areas are retained and performed by minimum augmenting ERO positions within the proposed emergency plan.

The non-minimum augmenting ERO will continue to be available and respond to declared emergencies. The non-minimum augmenting ERO will be notified at the same time as the minimum augmenting ERO to respond to their respective Emergency Response Facilities (ERFs) at an Alert or higher Emergency Classification Level (ECL). As currently in place, the non-minimum augmenting ERO is not required to activate a facility.

Non-minimum augmenting ERO positions remaining in the implementing procedures are as follows:

TSC
- TSC Coordinator
- TSC ERF Communicator

OSC
- OSC ERF Communicator

EOF
- Administrative Coordinator (Previously Administrative Support)
- State Liaisons
- Resource Coordinator

JIS/JIC
- JIS Technical Liaison
- Media Coordinator

Additionally, NextEra station and corporate personnel can be called as "as needed" to support ERO response activities. These personnel will perform activities related to their normal jobs (such as engineering, procurement, maintenance planning, administration, etc.) and will be notified to support the ERO as warranted.

3.4.5 Eliminated Augmenting ERO Positions

ERO positions contained in the current emergency plan and implementing procedures that are not contained in the proposed emergency plan or implementing procedures are as follows:

TSC
- Dose Assessment Technician ..... **Minimum Staff, E-Plan**
- Chemistry Supervisor ..... **Minimum Staff, E-Plan**
- Technical Assistant to the EC ..... **Minimum Staff**, EPIP
- Licensed Operator Support ..... Non-minimum Staff, EPIP
- Plant Data Communicator ..... Non-minimum Staff, EPIP
- Site Corporate Communicator ..... Non-minimum Staff, EPIP
- DCS/ERDADS Operator ..... Non-minimum Staff, EPIP
- Engineering/Maintenance Liaison ..... Non-minimum Staff, EPIP
- Document Control Personnel ..... Non-minimum Staff, EPIP

OSC

- OSC RP Supervisor ..... **Minimum Staff, E-Plan**
- Re-Entry Coordinator ..... Non-minimum Staff, EPIP
- Operations Supervisor..... Non-minimum Staff, EPIP
- Chemistry Supervisor ..... Non-minimum Staff, EPIP
- Mechanical Coordinator ..... Non-minimum Staff, EPIP
- Electrical/I&C Coordinator ..... Non-minimum Staff, EPIP
- Contract Medical Personnel ..... Non-minimum Staff, EPIP
- Dose Recorders ..... Non-minimum Staff, EPIP
- Materials Management Personnel..... Non-minimum Staff, EPIP
- OSC RP Communicator ..... Non-minimum Staff, EPIP
- OSC Status Board Keeper ..... Non-minimum Staff, EPIP
- OSC Document Control Personnel ..... Non-minimum Staff, EPIP
- OSC Security Officer ..... Non-minimum Staff, EPIP

EOF

- S/C Communicator ..... **Minimum Staff, E-Plan**
- Emergency Security Manager ..... **Minimum Staff, E-Plan**
- RM Operations Advisor ..... **Minimum Staff**, EPIP
- DCS/ERDADS Operator..... **Minimum Staff**, EPIP
- EOF Supervisor..... Non-minimum Staff, EPIP
- Technical Assistant to the RM..... Non-minimum Staff, EPIP
- ENS Communicator..... Non-minimum Staff, EPIP
- Field Monitoring Coordinator ..... Non-minimum Staff, EPIP
- Field Monitoring Recorder ..... Non-minimum Staff, EPIP
- HPN Communicator ..... Non-minimum Staff, EPIP
- TSC Communicator..... Non-minimum Staff, EPIP

All tasks previously assigned to eliminated ERO positions that involve response actions for key functions continue to be performed by the remaining ERO positions in the proposed emergency plan.

3.5 On-Shift Staffing Analysis (OSA)

Regulatory Issue Summary (RIS) 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation, (Reference 6.13), states that an on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 should not be used to provide the primary basis to support the Technical Evaluation of a License Amendment Request (LAR). The OSA, however, may be utilized as part of the overall evaluation of staffing changes. The RIS states:

> *…an evaluation performed using only the guidance of NEI 10-05 does not satisfy the requirement to identify and evaluate changes to ERO augmentation timing or ERO augmentation staffing that reduces the capability to perform an Emergency Planning function.*

In conjunction with this License Amendment Request, NextEra has performed and documented an OSA per 10 CFR 50, Appendix E, Section IV.A.9 following the guidance of NEI 10-05, Assessment of On-Shift Emergency Response Organization Staffing and Capabilities, (Reference 6.14).

The results of the OSA conclude there are no task overlap or overburden of the on-shift staff; however, NextEra understands that the OSA comprises a select set of identified scenarios and is not used as the sole basis for the conclusions in the technical evaluation supporting this amendment request.

3.6 Approved to Current E-Plan Comparison Analysis

This comparison analysis identifies the differences between the approved emergency plan and the current emergency plan. The approve emergency plan consists of the following:

- The latest Safety Evaluation Report (SER) for the entire plan was received in December of 1981, the SER was for Revision 8 of the St. Lucie Emergency Plan.
- SER for implementation of the NEI 99-01 R6 EALs approved in October 2020 (ML20237F257 contains latest NRC approved EAL scheme).

The comparison was made using the current emergency plan (Revision 70).

The results of the comparison between the approved emergency plan and the current emergency plan revealed the following changes identified as potential RIEs.

3.6.1 **[Potential RIE 5-1]** Position removed without re-assignment of responsibilities.

Approved Emergency Plan	Current Emergency Plan
Radiological Duty Officer - A designated member of the FPL General Office Power Resources staff with responsibility for responding to radiological emergencies or incidents on a 24 hour per day basis.	N/A

Disposition

The responsibilities for this position were not clear in the approved plan such that determination of reassignment of the responsibilities was apparent.

As can best be determined, the Site RP Manager and the EOF Dose Assessor positions perform the same response functions at the site. No RP related response functions or actions have been removed from the emergency plan.

3.6.2 **[Potential RIE 5-2]** Removed PAX System, which includes plant wide fire alarm and code call capability

Approved Emergency Plan	Current Emergency Plan
PAX Telephone System Private Automated Exchange (PAX) telephones are located strategically throughout the Protected Area. This system, which is used during normal plant operation, also provides an automatic plant-wide fire alarm and code call capability. It will continue to operate on battery power for at least two weeks in case of power failure.	N/A

Disposition

Site wide fire alarms are provided from the unit control rooms using the Plant Paging system which includes fire alarms. Gai-Tronics telephones allow personnel to contact the control room and make site announcements. Fire detection is addressed later.

3.7 Current to Proposed E-Plan Comparison Analysis

This comparison analysis identifies the differences between the current emergency plan (Revision 70) and the proposed NextEra Common Emergency Plan (CEP) and PSL Emergency Plan Site Annex.

Differences between the content of current emergency plan and the proposed emergency plan were evaluated to determine whether any potential reductions in effectiveness were introduced by changes made.

The results of the comparison between the current emergency plan and the proposed emergency plan revealed the following changes that could be considered reductions in effectiveness.

3.7.1 **[Potential RIE 6-1]** Reduced Hospital and Ambulance Drill Participation and Periodicity

Current Emergency Plan	**Common Emergency Plan & Site Annex**
[7.1.4.3 Medical Emergency Drill] A medical emergency drill involving a simulated contaminated individual, with provisions for participation by local support services (i.e., ambulance and off-site medical treatment facility), will be conducted at least once every calendar year. Participation by local support services (i.e., ambulance and off-site medical treatment facility), may be tested separately or as part of the annual medical drill.	[CEP – N.4.a] Each NextEra site will conduct an onsite simulated medical drill once per calendar year. The scope of the emergency medical drill will include a simulated on-site injured and contaminated individual and medical/ first aid treatment, including contamination control. Emergency Medical Drill offsite participation and periodicity for support Hospital and Ambulance services are performed in accordance with the 42 CFR 482.15 regulations and are not included in the scope of the station medical drills.

Disposition

The hospitals are accredited by The Joint Commission in compliance with 42 CFR 482.15, Condition of Participation: Emergency Preparedness. The regulations and accreditation require the hospitals to maintain an emergency plan and that the emergency preparedness program include, but not be limited to, the following elements (excerpts from the 42 CFR 482.15 regulation):

(a) Emergency plan. The hospital must develop and maintain an emergency preparedness plan that must be reviewed, and updated at least every 2 years. The plan must do the following:

(1) Be based on and include a documented, facility-based and community-based risk assessment, utilizing an all-hazards approach.

(2) Include strategies for addressing emergency events identified by the risk assessment.

(4) Include a process for cooperation and collaboration with local, tribal, regional, State, and Federal emergency preparedness officials' efforts to maintain an integrated response during a disaster or emergency situation.

(b) Policies and procedures. The hospital must develop and implement emergency preparedness policies and procedures, based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, and the communication plan at paragraph (c) of this section. The policies and procedures must be reviewed and updated at least every 2 years.

(d) Training and testing. The hospital must develop and maintain an emergency preparedness training and testing program that is based on the emergency plan set forth in paragraph (a)

Disposition

of this section, risk assessment at paragraph (a)(1) of this section, policies and procedures at paragraph (b) of this section, and the communication plan at paragraph (c) of this section. The training and testing program must be reviewed and updated at least every 2 years.

(1) Training program. The hospital must do all of the following:

(i) Initial training in emergency preparedness policies and procedures to all new and existing staff, individuals providing services under arrangement, and volunteers, consistent with their expected role.

(ii) Provide emergency preparedness training at least every 2 years.

(iii) Maintain documentation of the training.

(iv) Demonstrate staff knowledge of emergency procedures.

(v) If the emergency preparedness policies and procedures are significantly updated, the hospital must conduct training on the updated policies and procedures.

(2) Testing. The hospital must conduct exercises to test the emergency plan at least twice per year. The hospital must do all of the following:

(i) Participate in an annual full-scale exercise that is community-based; or

(A) When a community-based exercise is not accessible, conduct an annual individual, facility-based functional exercise; or.

(B) If the hospital experiences an actual natural or man-made emergency that requires activation of the emergency plan, the hospital is exempt from engaging in its next required full-scale community-based exercise or individual, facility-based functional exercise following the onset of the emergency event.

(ii) Conduct an additional annual exercise that may include, but is not limited to the following:

(A) A second full-scale exercise that is community-based or an individual, facility-based functional exercise; or

(B) A mock disaster drill; or

(C) A tabletop exercise or workshop that is led by a facilitator and includes a group discussion, using a narrated, clinically-relevant emergency scenario and a set of problem statements, directed messages, or prepared questions designed to challenge an emergency plan.

(iii) Analyze the hospital's response to and maintain documentation of all drills, tabletop exercises, and emergency events, and revise the hospital's emergency plan, as needed.

Therefore, the hospitals use an all-hazards approach to determine the community-risk and priorities of its emergency response preparation (training, drills, etc.) on the risk / priority. Maintaining the Contaminated Medical Emergency Drill annual frequency, places a false priority /risk and circumvent the 42 CFR 482.15 community all-hazards regulations for the hospitals.

Ambulance services are under different regulations (primarily state regulations) but serves the same demographic and has similar community-risk and priority profile. Per the 42 CFR 482.15 regulation, the hospital’s emergency plan includes cooperation and collaboration of local emergency preparedness officials and an annual full-scale community-based drill. CEP Section O.1.a, NextEra will continue to offer emergency response training annually to the ambulance service(s). Training includes basic radiation protection, the notification process for their organization, and their organization’s expected role.

This change removes the requirement for hospital and ambulance participation in the annual emergency medical drill. The proposed CEP revision retains all other previous Offsite Response Organization (ORO) arrangements including offered annually training, offered participation in drills and pre-arrangements documented in Letters of Agreement (LOAs).

NextEra stations will continue to meet the requirements of 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, Section IV.F.1. NextEra stations will continue to have arrangements with

Disposition

the OROs; annual training will be offered, and hospital participation in the emergency medical drill will be coordinated under 42 CFR 482.15 requirements. NextEra stations will participate in the hospital's community risk assessments to ensure the station's is properly risk evaluated and prioritized.

On-site emergency medical drill and training will be provided annually for the station's ERO. The training process/program will determine the need for additional on-site drills included in the training.

This drill participation arrangement was discussed with the OROs (hospitals and ambulance providers) and their concurrence is documented in Enclosure 10.

The 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations do not specify a frequency to perform the emergency medical drill. The annual frequency is specified in NUREG-0654 and provides the NRC approved guidance how to comply with the regulations. Licensees "may voluntarily use the guidance in the document to demonstrate compliance" with the NRC regulations or provide "methods or solutions that differ from those described." The alternate method of basing the drill frequency on the ORO community-risk assessment is appropriate and meets the intent of the planning standards.

The change to the emergency medical drill scope retains the annual requirement for the station while allowing the hospital and ambulance service the ability to participate under and within their regulatory requirements. This should provide a commitment which the NRC can evaluate as an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations.

3.7.2 **[Potential RIE 6-2]** Altered Annual Unannounced Communication Drills

Current Emergency Plan	**Common Emergency Plan & Site Annex**
7. Unannounced Drills At least one communications drill per year will be unannounced. This unannounced drill will include notification to all primary off-site response agencies (i.e. DEM, Department of Health, County Departments of Public Safety) and those FPL emergency response personnel required to be notified based upon the drill scenario. The unannounced communication drill could coincide with an exercise, or an actual Emergency Plan activation.	[CEP -- N.1.d] Each NextEra site will conduct at least one unannounced drill or exercise within an eight-year cycle. The unannounced drill requirement may be satisfied by an actual event provided objectives are evaluated and documented in a critique report for the augmentation of the ERO, the transfer of responsibilities, and facility activation. [CEP -- N.4.h] Each NextEra site will conduct an off-hours unannounced ERO report-in drill at least once within an eight-year cycle. The scope of the off-hours unannounced ERO report-in drill will require actual response to the assigned facility. The Off-Hours Report-In Drill requirement may be satisfied by an actual event provided objectives are evaluated and documented in a critique report. [CEP -- N.4.i] The NextEra ERO notification is an all-call process. Each NextEra site will conduct an off-hours unannounced ERO call-in drill biennially to verify each minimum staffing ERO position meets the required Table B-1 response time.

	The scope of the off-hours unannounced ERO call-in drill will require collection of the ERO notification system report which documents response within the required time. Completion of an Element N.4.h off-hours unannounced ERO report-in drill satisfies the requirements of the off-hours unannounced ERO call-in drill in this element. The Off-Hours Call-In Drill requirement may be satisfied by an actual event provided the objectives are evaluated and documented in a critique report.

Disposition

1. Requirement for an annual unannounced communications drill with the ORO has been removed.

   ORO warning points are staffed 24/7 with communications tests required monthly. ERO performance of ORO notification are now monitored under the ROP inspection process by the DEP performance indicator. Credited DEP notification is demonstrated on average more than 50x per year. No regulation, guidance or inspection procedure call for an annual unannounced communications drill with the ORO.

   Restoring the scope and periodicity of communications drills and unannounced drills to consistency with the NUREG-0654 criteria does not impact the ability of the ERO or ORO to perform the notifications function, demonstrating full capability of the function.

2. Requirement for an annual unannounced communications drill with the ERO duty team has been changed to biennial.

   NUREG-0654 R2 calls for quarterly off-hours call-in drills, such that each ERO member's normally expected response time is assessed at least biennially, with some drills being unannounced. The NextEra ERO notification is an all-call process, which for call-in drills will collect response time estimates from the entire ERO. This process validates all ERO members' response time each time it is used. The CEP drill criteria requires that the biennial ERO call in drill to be unannounced. This change aligns the CEP drill requirement with the intent of NUREG-0654 R2 criteria and provides a shorter periodicity for the testing of the full ERO notification process (annual team testing results in full testing every four years vs. every two years under the new criteria).

   Adopting the NUREG-0654 R2 criteria for ERO call-in drills does not impact the ability of the ERO to perform the augmentation function.

3.7.3 **[Potential RIE 6-3]** Removed EP Initial Training of Non-ERO Personnel

Current Plan	**Proposed Common Plan**
[7.2.2. Training of On-site Emergency Response Organization (ERO) Personnel] The Site Training Manager is responsible for the conduct and documentation of initial training and annual retraining programs for on-site FPL Emergency Response Organization (ERO) personnel. Specific training is specified in the following subsections. The site Emergency Preparedness Manager is responsible for the content and accuracy of the Emergency Plan Training. Each new employee permanently assigned to work at the St. Lucie	[CEP -- O.2.a] Changes to the training program are identified from trainee feedback and by critique items captured during drills and incorporated per the principles of the SAT process. [CEP -- O.2.b] All individuals participating in the ERO training program are given the opportunity to provide feedback of training sessions. Any weak or deficient areas identified and corrected. [CEP – P.3] The site Regulatory Affairs Managers are

Plant shall be given initial orientation training. For employees not assigned specific responsibility or authority under the Emergency Plan or Emergency Plan Implementing Procedures (EPIPs), such training shall, at a minimum, provide information describing the action to be taken by an individual discovering an emergency condition, the location of assembly areas, the identification of emergency alarms, and the action to be taken upon hearing those alarms. Training must be current to be maintained in the Emergency Response Organization (ERO). Emergency Plan Training records for Security personnel are maintained by the Site Training Manager.	responsible for the development, maintenance, review, and updating of the emergency plan, as well as the coordination of the plan with other response organizations.

Disposition

R1 and R2 of NUREG-0654 do not contain criteria requiring a description of training for non-ERO/non-essential personnel within the emergency plan). No regulation, other guidance document or inspection procedure calls for a description of non-ERO general employee training to be contained in the emergency plan.

General industrial safety information, which includes awareness and expectations to normal, off-normal and emergency situations is provided to all personnel given unescorted access onto the site. General employee training for unescorted site access includes topics of safety conscious work environment (SCWE), stormwater pollution prevention (SWPP), spill prevention and control, hearing conservation, emergency plan, and fire extinguishers and is presented in the NANTel Generic Awareness and NextEra site specific site access training courses.

Site specific general awareness training scope (industrial and emergency condition related) is governed and controlled outside the emergency plan.

Emergency plan awareness content review in general employee training by personnel knowledgeable of the emergency plan is provided in document controls processes and procedures. These processes and procedures are also applicable to changes to made by other non-EP departments that could potentially impact the emergency plan.

3.7.4 **[Potential RIE 6-4]** Reduced ERO Roster Review Periodicity from Quarterly to Semiannually

Current Emergency Plan	**Common Emergency Plan & Site Annex**
2. Review of the Emergency Plan and Emergency Plan Implementing Procedures The Emergency Plan and Emergency Plan Implementing Procedures will be under continuing review by the site emergency planning group. A comprehensive review of the Emergency Plan will be conducted annually. The Emergency Plan Implementing Procedures are reviewed during drills, exercises, and actual emergencies and revised as necessary to correct identified deficiencies. The Emergency Plan Implementing Procedures will undergo a thorough formal review at least once every two years and be revised as necessary. Notification lists and	[CEP -- P.3] The site Regulatory Affairs Managers are responsible for the development, maintenance, review, and updating of the emergency plan, as well as the coordination of the plan with other response organizations. [CEP -- P.4] The formal emergency plan (as defined in the introduction section) and the emergency plan implementing procedures (as defined in Section P.7) will be reviewed on an annual basis and updated if necessary. Any changes to regulations, issues identified by drills and exercises, assessments and audits, or other updates will be evaluated and incorporated into

Current Emergency Plan	Common Emergency Plan & Site Annex
rosters will be updated at least quarterly. If changes affecting emergency response are identified, these changes will be made as needed. The revised Emergency Plan will be distributed with the latest revision number indicated on each page. Revision indication along the right margin will be used to indicate where changes have been made. If during these annual reviews no changes are needed, this will be documented.	the emergency plan if warranted. Letters of Agreement will be reviewed and verified on an annual basis, and updated if warranted. Changes will be processed in accordance with 10 CFR 50.54(q) requirements and NextEra document control/records management procedures. [CEP – P.10] The NextEra emergency communications directory contains select contact numbers for ORO and support organizations identified in the emergency plan and implementing procedures. The ERO call-out system contains comprehensive ERO contact information. NextEra ERO contact information is verified semi-annually and updated as needed. Facility and support contact information in the emergency communications directory is verified annually and updated as needed.

Disposition

Due to the local relationships and the advancement of technology, the quarterly emergency telephone directory review is being changed to a semi-annual review. Historically, little change between quarters has occurred such that changing to a semi-annually review would have little impact on accuracy.

With cellular phones being the primary notification tool for ERO personnel, there is not nearly as many changes of phone numbers. In the past, if an individual moved their residence, their phone number likely did not travel with them as the numbers were tied to geographical regions within the city or town they were moving (land lines). With cell phones and changes to long distance billing, many people keep their same cell phone number as they move, whether across town or across country.

Most businesses or other support contacts that are listed in emergency telephone directory are established entities that do not change their business lines often enough to warrant a check every quarter. In addition, the internet is now the primary location to obtain business numbers, with these numbers readily available fewer numbers are required to be maintained in EP phone lists.

3.7.5 **[Potential RIE 6-5]** Reduced Emergency Equipment and Kit Inventories Periodicity from Quarterly to Semiannually

Current Emergency Plan	Common Emergency Plan & Site Annex
7.4 Emergency Equipment Maintenance All designated emergency equipment that is maintained in each Control Room, the TSC, OSC, EOF and the Site Assembly Station will be inventoried, operationally checked, and inspected at least once each calendar quarter and following each use.	[CEP – H.11] NextEra emergency equipment and kits are inventoried to verify adequate supplies and materials, and to inspect condition semi-annually and following each use. Emergency use equipment and instruments are operationally checked semi-annually during the inventory, and prior to use if needed as specified in procedures. Sufficient reserves of instruments and

	equipment are maintained to replace those removed from service for calibration or repair.

Disposition

NUREG-0654 R2 element H.11 calls for a description of the provisions made for the testing and maintenance of emergency use equipment and supplies. Previous versions (NUREG-0654 R1 and draft R2) specified a quarterly periodicity. The quarterly periodicity was intentionally removed from the final approved version of NUREG-0654 R2 specifically to allow EP programs greater latitude in establishing inventory periodicities for infrequent use items.

Requirements to calibrate emergency equipment and instruments are specified in site procedures [CEP – H.11.b] and continue to be performed per national standards or the manufacturer's instructions.

Requirements to operationally check emergency equipment and instruments prior to use are procedurally required as applicable.

Historic records provide evidence that emergency use equipment and supplies inventories identify few, if any, issues such that an increased periodicity would not have an adverse effect on availability.

Changing the inventory periodicity from quarterly to semi-annual does not degrade the capability of the equipment and supplies to perform their function.

3.8 Proposed E-Plan to NUREG-0654 R2 Criteria Comparison Analysis

Each element of NUREG-0654 R2, is clearly stated in the proposed NextEra Common Emergency Plan and PSL Emergency Plan Annex. The proposed plan/annex deviates from the following NUREG-0654 R2 elements:

3.8.1 **[Potential RIE 7-1]** Added Allowance for Remote Response of Engineering and Dose Assessment Function

NextEra Common Emergency Plan	**NUREG-0654 R2**
B.1.b The remote emergency response organization (ERO) positions are defined. Resources necessary to perform the functions and tasks assigned to the remote response positions, as well as a backup capability, are described.	N/A
The NextEra ERO includes remote response positions. Remote response positions are not required to physically manipulate plant equipment or take other physical actions at the site. Remote response positions are provided the resources to collaborate with ERO personnel in their assigned emergency facility. These resources provide; • the ability to communication audio/visually between emergency facility and the remote responder. • the ability to access procedures, information and data. • the ability to share screens/documents. ERO members responding remotely to an emergency are capable of performing all functions and tasks assigned to their position, including support provided to other ERO members, as described in the emergency plan and implementing procedures. These positions support the on-shift staff prior to activation of the TSC and EOF. 1. Remote Responders Assigned to the TSC (refer to Section B.1.a.2) The Reactor Engineer, Electrical/I&C Engineer, and Mechanical Engineer ERO minimum staff positions are remote responders assigned to the TSC. NextEra provides a corporate facility that provides the equivalent resource capability as a backup for the remote ERO engineering positions. 2. Remote Responders Assigned to the EOF (refer to Section B.1.a.4) The Remote Dose Assessor ERO minimum staff position is assigned to the EOF. NextEra provides a corporate facility that provides the equivalent resource capability as a backup for the Remote Dose Assessor position. Additionally, the Shift Dose Assessor from another NextEra site are capable of supporting the affected site as a backup to the Remote Dose Assessor position.	

Disposition

Note – JIS by definition is a remote response process acknowledged by the NRC. It is not included in this disposition of NextEra remote ERO responders.

The Common Emergency Plan includes the following remote response ERO positions:

- Reactor Engineer
- Mechanical Engineer
- Electrical/I&C Engineer
- Remote Dose Assessor

Disposition

Title 10 of the Code of Federal Regulations (10 CFR) 50.47 (b)(2) requires that an onsite emergency plan meet the following standard:

> "On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified."

Providing the ability for specific augmenting ERO positions to participate remotely can enhance overall response efficiency through:

- Safer and faster response by ERO members since travel to an Emergency Response Facility (ERF) during various times, weather conditions, etc. is not necessary.
- Expanding the pool of potential ERO members with individuals possessing desirable expertise at the station and throughout the NextEra fleet.
- Providing greater ERO response since multiple ERO members in a position can be called upon to provide support.

The following key considerations were evaluated when determining the remote ERO response positions and capability:

- Identification of ERO positions with assigned functions and tasks that can be successfully performed in a remote response environment. The position has capability of completing all functions and tasks assigned to the position, including support provided to other ERO members, as described in the emergency plan and implementing procedures.
- Maintaining compliance with regulatory requirements applicable to the ERO.
- Evaluating changes to the approved and current site Emergency Plans and to the guidance in NUREG-0654 R2.
- The impact that a remote response could have on the position's ability to effectively function within the reporting facility or team (e.g., a dose assessment team).
- The ERO response actions in various classified emergency events (example; Hostile Action event or severe weather).
- Overall enhancement and improvements to the ERO response and emergency plan.

The remote ERO positions are not required to respond to a physical location within the activation time, but if desired or necessary there are physical response locations available such as at the station, corporate facility, or NextEra administrative offices.

Remote ERO positions can function from various locations based upon meeting a prompt response time and providing a depth of available communications and information resources. If a remote ERO member cannot perform the function due to personal or technology issue, standard / current processes would be utilized to replace the ERO member as soon as possible or the remote ERO member can relocate to resolve any technical issues.

Remote ERO personnel are capable of communicating with response and support personnel in the applicable ERF, or other locations, through pre-established communication channels. The remote ERO personnel will have various communication mediums (phones, standard conference bridges, internet, video conferencing software, and/or any additional technology advancements) available to them to effectively interface and communicate. The communication medium allows the remote ERO member to:

- Report virtually to an ERF leadership position
- Obtain directions based on the priorities of the event
- Obtain information necessary to perform assigned functions and tasks
- Provide necessary information to others

The pre-established communication channels possess the following features:

- Audio/visual communication between users
- Ability to share screens/documents

Disposition

- Ability to grant access to other ERO members and ORO agencies, if desired
- Transfer capacity to handle any reasonably expected data and communication needs
- System being highly reliable
- Ability of software vendor or NextEra Information Technology (IT) department to push out software updates and notifications of system outages

NextEra has a robust plant process computer system that is used to perform monitoring of each station as a matter of core business. This computer system is available to NextEra staff 24/7 locally and remotely to review plant performance from any location. If detailed in-field information is needed, the information exchange will rely on currently established practices of craft workers and operations staff providing photos of what is seen in the field. This will allow for solid analysis and judgement to be used in response recommendations. Cell phone technology advancements have allowed communications from the field to be vocal and visual (pictures and video); this common practice is used daily to communicate to the Control Room and/or Engineering staff. As necessary, this common practice can be used for any ERO position which could benefit from pictures/video to and from the field, example applications:

- Pictures of a valve can be sent to the Engineer from an in-field Operator.
- Maps can be sent to the FMTs from the Remote Dose Assessor.

The reliability of the computer data systems provided at the corporate and station locations utilized for remote ERO response is similar to the stations' Emergency Response Facilities. The reliability of non- NextEra remote locations (home, etc.) is dependent upon local internet service, but during the Covid-19 crises NextEra staff were able to work remotely effectively and efficiently. It has become a common practice to communicate, conduct multi-person meetings, share documents while working remotely. Personnel utilize the local internet service and cell phone hot spots to connect to the internet. If all else fails, personnel would respond to the NextEra corporate or station location/facility to perform the function remotely. In essence, performing work from remote locations has become a common practice and used daily by the staff.

The remote ERO positions are designated and assigned based on the established ERO selection and qualification process of NextEra. The process contains prerequisites and training to ensure competent personnel are responding to the emergency. The Systematic Approach to Training (SAT) process will be used to determine the initial and continuing training requirements. The training analysis will not be limited or focused on the remote ERO responders but also address the ERO members interfacing with the remote responders.

NRC Inspection Procedures (IP) do not currently identify specific remote ERO response performance evaluation criteria. Thus, performance evaluation would be based upon the Risk-Significant Areas (IP 71114 Section 03.04) and Additional Areas for Inspection (IP 71114 Section 03.06) similar to what is done for Field Monitoring Team and JIS response activities, which are performed outside of the ERFs.

To support the evaluation of the emergency plan and procedures, NextEra is required to conduct drills, exercises, tabletops, etc. to validate and demonstrate that the ERO, including the remote ERO, can responded successfully. Providing new (first-time) enhanced processes and abilities to protect the public should not be limited due to any existing abilities or inabilities to evaluate the enhancements. The NextEra drill and exercise program will be modified, as necessary, to incorporate the demonstration and evaluation of the remote ERO capability. Evaluations will focus upon the remote ERO task performance results. As necessary, drill/exercise evaluator and controllers will monitor the communication channels; similar to evaluations and controls of current remote drill/exercise activities (such as JIS and field monitoring activities). Critiques conducted after these drills and exercises should identify any issues encountered with the remote response; weaknesses identified from the critique will be entered into the appropriate site corrective action process.

During exercises, acceptable performance determination of remote ERO positions is based upon task performance results and monitoring communication channels, as necessary. As stated above, this is similar to evaluating current remote ERO activities. The following areas are

Disposition

examples which could be applicable based upon the remote ERO's responsibilities and task performance results:

- Risk-Significant Areas
  - Classification of events
  - Development of Protective Action Recommendations (PARs)
  - Assessment of offsite consequences
- Additional Areas for Inspection
  - Readiness and adequacy of EP equipment
  - Timely activation of facility
  - Command and control
  - Ability to diagnose plant accident conditions
  - Ability to formulate mitigating actions
  - Adequacy of communications
  - Accuracy and completeness of licensee-approved press releases

Administrative controls will ensure that remote ERO responders have access to any required data and any equipment necessary to perform their emergency response duties. Administrative controls will also require periodic tests/maintenance to verify the functionality of the equipment.

Individuals filling remote response positions will adhere to the Fitness-for-Duty (FFD) requirements in 10 CFR 26 and station procedures. Current NextEra procedures and policies require ERO responders to certify they are fit-for-duty prior to assuming their emergency response duties. These same procedures and policies are applicable for the remote ERO personnel.

3.8.2 **[Potential RIE 7-2]** Altered of Minimum Augmenting ERO Positions and Response Times

NextEra Common Emergency Plan	**NUREG-0654 R2**
Refer to Element B.3 and Table B-1: On-Shift and Augmenting ERO Staffing Plan	Refer to Element B.3 and Table B-1: On-Shift and Augmenting ERO Staffing Plan

Disposition

See Sections 3.2 and 3.3 Potential RIE deviation dispositions for position specific ERO position and augmentation time deviation dispositions.

3.8.3 **[Potential RIE 7-3]** EOF not Primary Base of Station Emergency Operations

NextEra Common Emergency Plan	**NUREG-0654 R2**
The Emergency Operations Facility (EOF) provides a dedicated location for support of the site event response activities. The EOF is sized to accommodate ERO responders and NRC, FEMA, and state representatives. The EOF is activated when minimum staffing requirements are met, key systems and equipment are verified operational, and the ERO personnel are prepared to perform their functions. When activated, the EOF's primary functions include: • Coordinate emergency response activities with federal, state, and local authorities	H.3 An EOF is established, using current Federal guidance, as the primary base of emergency operations for the licensee during a radiological incident. The EOF facilitates the management and coordination of the overall emergency response, including the sharing of information with Federal, state, local, and tribal government authorities.

NextEra Common Emergency Plan	NUREG-0654 R2
• Coordinate support activities performed by personnel brought in to assist NextEra personnel • Perform offsite dose assessment and field monitoring activities. • Development of dose based offsite protective actions recommendations. • Coordination of emergency response activities with federal, state, and local authorities. • Coordination of radiological and environmental assessment activities with offsite agencies. • Communicate with the NRC HPN line. • Coordinate corporate support. • Support site acquisition of external assistance (technical, craft, admin, etc.). • Support site acquisition of equipment, supply, and logistic resources. Because the EOF is located outside the plume exposure EPZ for all NextEra sites, specialized ventilation systems and radiological monitoring are not required. The EOF ventilation system is consistent in design with standard building codes. Each EOF provides communications to the Control Room, TSC, field monitoring teams, NRC, and OROs. The EOF has the capability for the acquisition, display, and evaluation of unit, radiological and meteorological conditions necessary to perform accident assessment and determine protective measures. The EOFs have access to drawings and other records, including general arrangement diagrams, piping and instrumentation diagrams (P&IDs), electrical schematics and plant procedures as either electronic or paper documents. The EOF has the capability to support the remote response of ERO positions. Site specific details of the EOF are described in the site annexes.	

Disposition

NextEra will transfer and retains command-and-control and non-delegable tasks in the TSC, and therefore the TSC is the primary base of emergency operations for the licensee. By maintaining command-and-control in the TSC, multiple turnovers of responsibilities are not required.

The change to maintain the TSC as the primary base of emergency operations is an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations

3.8.4 **[Potential RIE 7-4]** Reference and Scope Change for MBDBE Exercises

NextEra Common Emergency Plan	**NUREG-0654 R2**
N.3.e 10 CFR 50.155(b)(2) Strategies Demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.155(b)(2). Each NextEra site will conduct at least one scenario requiring demonstration of the ability to transition between procedures and select the strategy(ies) for preventing or mitigating fuel damage and limiting radiological releases, within an eight-year cycle. The MBDBE exercise scenario will be based in one of the site specific strategies used to mitigate spent fuel pool damage scenarios or one of the 7 strategies for PWRs used to mitigate reactor accidents and maintain containment. The MBDBE exercise may be conducted separately from the main exercise timeline and sequence of events. This includes the (simulated) deployment and use of equipment associated with these strategies. At a minimum, TSC and OSC ERO staff will participate in this portion of the exercise. Participation of Control Room, EOF, JIC ERO, and offsite officials may be simulated. Methods to accomplish this demonstration are dependent upon the nature of the postulated initiating event, the plant response/accident sequence, and the ability of responders to select and implement mitigation/management strategies. These methods involve conducting any of the following: • A demonstration of the transition from a controlling AOP or EOP into the Extensive Damage Mitigation Guidelines (EDMGs), FLEX support guidelines (FSGs), or Severe Accident Management Guidelines (SAMGs). • A demonstration of the use of EDMGs. • A demonstration of the use of FSGs. • A demonstration of the use of SAMGs.	N.3.e 10 CFR 50 54(hh)(2) Strategies Demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2).

Disposition

NUREG-0654 R2 Element N.3.e calls for the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2). 10 CFR 50.54(hh)(2) has been replace by 10 CFR 50.155(b)(2). Language of the two regulations is as follows:

10 CFR 50.54(hh)(2) (74 FR 13925)	***10 CFR 50.155(b)(2) (84 FR 39684)***
Each licensee shall develop and implement guidance and strategies intended to maintain or restore core cooling, containment, and	*Extensive damage mitigation guidelines—Strategies and guidelines to maintain or restore core cooling, containment, and spent*

Disposition

spent fuel pool cooling capabilities under the circumstances associated with loss of large areas of the plant due to explosions or fire, to include strategies in the following areas: *(i) Fire fighting;* *(ii) Operations to mitigate fuel damage; and* *(iii) Actions to minimize radiological release.*	*fuel pool cooling capabilities under the circumstances associated with loss of large areas of the plant impacted by the event, due to explosions or fire, to include strategies and guidelines in the following areas:* *(i) Firefighting;* *(ii) Operations to mitigate fuel damage; and* *(iii) Actions to minimize radiological release.*

Scope of Strategies Used in an Emergency Plan Related MBDBE Exercise

The Federal Register content (74 FR 13925) for implementation of 10 CFR 50.54(hh)(2) provided the following discussion:

> *Section 50.54(hh)(2) requires licensees to develop guidance and strategies for addressing the loss of large areas of the plant due to explosions or fires from a beyond-design basis event through the use of readily available resources and by identifying potential practicable areas for the use of beyond-readily-available resources. These strategies are to address a licensee's responses to events that are beyond the design basis of the facility. The requirements in the final rule are based on similar requirements originally found in the ICM order of 2002. Ultimately, these mitigative strategies were further developed and refined through extensive interactions with licensees and industry. The NRC recognizes that these mitigative strategies are beneficial for the mitigation of all beyond-design basis events that result in the loss of large areas of the plant due to explosions or fires. Current reactor licensees comply with these requirements through the use of the following 14 strategies that have been required through an operating license condition. These strategies fall into the three general areas identified by §§ 50.54(hh)(2)(i), (ii), and (iii). The fire-fighting response strategy reflected in § 50.54(hh)(2)(i) encompasses the following elements:*
>
> *1. Pre-defined coordinated fire response strategy and guidance.*
>
> *2. Assessment of mutual aid fire fighting assets.*
>
> *3. Designated staging areas for equipment and materials.*
>
> *4. Command and control.*
>
> *5. Training of response personnel.*
>
> *The operations to mitigate fuel damage provision in § 50.54(hh)(2)(ii) includes consideration of the following:*
>
> *1. Protection and use of personnel assets.*
>
> *2. Communications.*
>
> *3. Minimizing fire spread.*
>
> *4. Procedures for implementing integrated fire response strategy.*
>
> *5. Identification of readily-available, pre-staged equipment.*
>
> *6. Training on integrated fire response strategy.*
>
> *7. Spent fuel pool mitigation measures.*
>
> *The actions to minimize radiological release provision in § 50.54(hh)(2)(iii) includes consideration of the following:*
>
> *1. Water spray scrubbing.*
>
> *2. Dose to onsite responders.*
>
> *The Commission considered specifically including these 14 strategies in § 50.54(hh)(2). However, the Commission decided that the more general performance-based language in § 50.54(hh)(2) was a better approach to account for future reactor facility designs that may contain features that preclude the need for some of these strategies. New reactor licensees are required to employ the same strategies as current reactor licensees to address core cooling, spent fuel pool cooling, and containment integrity. The mitigative strategies*

Disposition

employed by new reactors as required by this rule would also need to account for, as appropriate, the specific features of the plant design, or any design changes made as a result of an aircraft assessment that would be performed in accordance with the proposed Aircraft Impact Assessment rule (72 FR 56287; October 3, 2007).

As shown above, the actual number/list of strategies was not included in the body of the 10 CFR 50.54(hh)(2) regulation.

Subsequent regulatory guidance clarified the list of EDMG response strategies, and the NRC endorsement of NEI 06-12 specifically provided seven EDMG strategies for PWRs, which have been tied to 10 CFR 50 Appendix E.IV.F.2.j.(iii)(4) by the NRC in ML20070K088:

- Makeup to RWST
- Manually Depressurize SGs to Reduce Inventory Loss
- Manual Operation of Turbine-Driven (or diesel-driven) AFW Pump
- Manually Depressurize SGs and Use Portable Pump
- Makeup to CST/AFWST
- Containment Flooding with Portable Pump
- Portable Sprays

In this regard, NUREG-0654 R2 guidance on the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] are as follows:

These exercises should address development and maintenance of the following skills associated with the 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] strategies:

- *Use of the strategies to mitigate spent fuel pool damage scenarios. All applicable strategies, such as makeup, spray, and leakage control, should be addressed, but not every variation of a given strategy needs to be addressed; and*
- *Use of the strategies to mitigate reactor accidents and maintain containment. Each of the 10 strategies for BWRs or 7 strategies for PWRs should be addressed based on the type of reactor, but not every variation of a given strategy needs to be addressed.*

Thus, the scope of strategies applicable to an emergency plan MBDBE exercise in the proposed emergency plan include the site specific strategies used to mitigate spent fuel pool damage scenarios and the 7 strategies for PWRs used to mitigate reactor accidents and maintain containment.

Strategy Frequency Used in an Emergency Plan Related MBDBE Exercise

10 CFR 50 Appendix E.IV.F.2.j.(iii), states that licensees shall vary the content of scenarios during exercises. MBDBE exercises are one of five types of exercise scenarios listed in Appendix E, each of which have multiple variations. Demonstration of all or multiple variations for each type of exercise scenario is not the intent of the regulation, and performance of all the possible exercise variations/strategies is not possible in the four NRC evaluated biennial exercises conducted within the cycle. As it is, the current list of exercise scenario types must already be combined in order to be demonstrated during a biennial NRC evaluated exercise.

Thus, only one MBDBE strategy needs to be performed in a biennial NRC evaluated exercise within the cycle. Similar to the scenario variations for the other types for exercises, MBDBE strategies are expected to be varied between exercise evaluations. An exercise with multiple strategies or more than one MBDBE based exercise within the cycle is not required by the proposed emergency plan.

Extent of Play Used in an Emergency Plan Related MBDBE Exercise

The relocation of 10 CFR 50.54(hh)(2) content to 10 CFR 50.155(b)(2) involved only minor wording changes. However, included in the movement of the regulation was the specific intent to not regulatorily require drills or exercises, as provided by the following discussion in the Federal Register (84 FR 39684):

The NRC noted that the conduct of drills or exercises was not included as a requirement in

Disposition

the Mitigation Strategies Order, instead being an element of an acceptable approach to meeting the order's requirement for training. Drills are addressed in the regulatory guidance for the Mitigation Strategies Order contained in section 11.6.5 of NEI 12-06, as endorsed by JLD-ISG-2012-01 and carried forward to the regulatory guidance for the final rule. NEI 12-06, Revisions 0 and 2 contained guidance on the content and periodicity of these drills, specifying the same 8-year period as was proposed for this rule. NEI 12-06, Revision 4, which is endorsed by the final version of Regulatory Guide 1.226, incorporates by reference further guidance on the performance of drills contained in the industry document NEI 13-06, Revision 1, "Enhancements to Emergency Response Capabilities for Beyond Design Basis Accidents and Events," which also specifies the 8-year period that was proposed for drill performance for this rule….

The NRC concludes that the requirements imposed by the Mitigation Strategies Order were sufficient to provide reasonable assurance of adequate protection and no new information was developed with regard to drills or exercises that would modify this conclusion. The NRC similarly concludes that imposing a requirement for drills and exercises would not provide a substantial increase in the overall protection of public health and safety. Therefore, the imposition of a requirement for drills or exercises would not meet the provisions of the Backfit Rule. The requirement for drills and exercises has been removed from the final rule….

In addition, the NRC did not revise the MBDBE drill frequency because it is specified in the regulatory guidance for the final rule in response to these comments. The NRC concluded that the 8-year periodicity strikes the correct balance in terms of providing an appropriate level of regulatory assurance, and, by aligning with the current emergency preparedness exercise requirements, it provides licensees with flexibility should they choose to implement the drills in conjunction with emergency preparedness drills or exercises.

However, 10 CFR 50 Appendix E does require licensees to provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to respond to a scenario under § 50.155(b)(2) once in each 8-calendar-year cycle in an exercise.

In this regard, NUREG-0654 R2 guidance on the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] are as follows:

The portion of a biennial exercise that involves demonstration of strategies associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] may be conducted separately from the main exercise timeline and sequence of events. Thus, the initiating event(s) for entry into site-specific guidelines or procedures associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] may differ from the initiating event(s) of the main exercise scenario and could involve an initiating event other than hostile action, such as a fire, flood, or explosion affecting large areas of the site, or station blackout. At a minimum, TSC and OSC staff would need to participate in this portion of the exercise. Participation of CR personnel, EOF staff, JIC staff, and offsite officials may be simulated consistent with the purpose of this portion of the exercise to maintain key ERO skills for familiarity with guidelines, procedures, and strategies associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)]. This includes the (simulated) deployment and use of equipment associated with these strategies and intended to maintain or restore core cooling, containment, and/or spent fuel pool cooling. The portion of the exercise scenario addressing demonstration of 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] related strategies should be included in the licensee's submittal of the biennial exercise scenario for NRC review. Exercises may also include the use of the NRC-endorsed mitigation strategies described in NEI 12-06, Revision 0, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide."

NEI 13-06, endorsed by the NRC and included in the Federal Register notice for implementation of 10 CFR 50.155(b)(2), provides additional information regarding the extent of play of MBDBE drills:

5.3.1 Industry Performance Standards for BDB Event Response Drills

Disposition

Each licensee should demonstrate the capability for effective integrated use of their accident mitigation and management procedure and guideline sets. In particular, the ability to transition between procedure and guideline sets, and select the best strategy for preventing or mitigating fuel damage and limiting radiological releases, is demonstrated. Complementary methods will be necessary to accomplish this demonstration since the procedures and guidelines implemented for a given scenario are dependent upon the nature of the postulated initiating event, the plant response/accident sequence, and the ability of responders to select and implement mitigation/management strategies. The use of complementary methods will also promote more effective use of resources (e.g., facilitates targeted drill objectives, avoids excessive drill "down time" and durations, etc.), and minimize potential safety challenges to personnel and equipment. These methods are discussed below and involve conducting:

- *A drill that demonstrates the integrated use of FLEX strategies under the control of an Abnormal Operating Procedure (AOP) or Emergency Operating Procedure (EOP), as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.4.*
- *A drill that demonstrates the transition from a controlling AOP, EOP or Extensive Damage Mitigation Guidelines (EDMG) into Severe Accident Management Guidelines (SAMGs), and the selection of appropriate severe accident management strategies. The integrated use of FLEX strategies may occur if directed by the controlling SAMG and as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.5.*
- *A drill that demonstrates the use of EDMG strategies. The integrated use of AOPs and EOPs, and FLEX strategies, may occur if directed by the controlling EDMG as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.6.*

Thus, the extent of play applicable to an emergency plan MBDBE exercise in the proposed emergency plan specifies that only TSC and OSC ERO personnel are required staffing (although other emergency response facilities may be included) and demonstration involves;

(1) the transition from emergency operating procedures into Extensive Damage Mitigation Guidelines (EDMGs), FLEX support guidelines (FSGs), or Severe Accident Management Guidelines (SAMGs), and

(2) use of the EDMG, FSG or SAMG from a decision making and communications aspect with simulated field actions.

Summary

The proposed emergency plan replaces the NUREG-0654 element reference from 10 CFR 50.54(hh)(2) to 10 CFR 50.155(b)(2), and establishes the scope (meaning type of MBDBE strategies), number (meaning how many MBDBE strategies must be demonstrated within the cycle) and the ERO's extent of play of those exercises.

This detailed specification is consistent with 10 CFR 50 Appendix E.IV.F.2.j.(iii).

Other drills and training that involve personnel and response actions outside the scope of the emergency plan will continue to be conducted under the MBDBE program.

3.8.5 **[Potential RIE 7-5]** Reduced Hospital and Ambulance Drill Participation and Periodicity

NextEra Common Emergency Plan	**NUREG-0654 R2**
[CEP – N.4.a] Each NextEra site will conduct an onsite simulated medical drill once per calendar year. The scope of the emergency medical drill will include a simulated on-site injured and contaminated individual and medical/ first aid treatment, including contamination control. Emergency Medical Drill offsite participation and periodicity for support Hospital and Ambulance services are performed in accordance with the 42 CFR 482.15 regulations and are not included in the scope of the station medical drills.	N.4.a Emergency Medical Drills Emergency medical drills are conducted annually. These drills involve a simulated, contaminated individual and contain provisions for participation by support services agencies (i.e., ambulance and offsite medical treatment facility).

Disposition

The hospitals are accredited by The Joint Commission in compliance with 42 CFR 482.15, Condition of Participation: Emergency Preparedness. The regulations and accreditation require the hospitals to maintain an emergency plan and that the emergency preparedness program include, but not be limited to, the following elements (excerpts from the 42 CFR 482.15 regulation):

(a) Emergency plan. The hospital must develop and maintain an emergency preparedness plan that must be reviewed, and updated at least every 2 years. The plan must do the following:

(1) Be based on and include a documented, facility-based and community-based risk assessment, utilizing an all-hazards approach.

(2) Include strategies for addressing emergency events identified by the risk assessment.

(4) Include a process for cooperation and collaboration with local, tribal, regional, State, and Federal emergency preparedness officials' efforts to maintain an integrated response during a disaster or emergency situation.

(b) Policies and procedures. The hospital must develop and implement emergency preparedness policies and procedures, based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, and the communication plan at paragraph (c) of this section. The policies and procedures must be reviewed and updated at least every 2 years.

(d) Training and testing. The hospital must develop and maintain an emergency preparedness training and testing program that is based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, policies and procedures at paragraph (b) of this section, and the communication plan at paragraph (c) of this section. The training and testing program must be reviewed and updated at least every 2 years.

(1) Training program. The hospital must do all of the following:

(i) Initial training in emergency preparedness policies and procedures to all new and existing staff, individuals providing services under arrangement, and volunteers, consistent with their expected role.

(ii) Provide emergency preparedness training at least every 2 years.

(iii) Maintain documentation of the training.

(iv) Demonstrate staff knowledge of emergency procedures.

(v) If the emergency preparedness policies and procedures are significantly updated, the hospital must conduct training on the updated policies and procedures.

Disposition

(2) Testing. The hospital must conduct exercises to test the emergency plan at least twice per year. The hospital must do all of the following:

(i) Participate in an annual full-scale exercise that is community-based; or

(A) When a community-based exercise is not accessible, conduct an annual individual, facility-based functional exercise; or.

(B) If the hospital experiences an actual natural or man-made emergency that requires activation of the emergency plan, the hospital is exempt from engaging in its next required full-scale community-based exercise or individual, facility-based functional exercise following the onset of the emergency event.

(ii) Conduct an additional annual exercise that may include, but is not limited to the following:

(A) A second full-scale exercise that is community-based or an individual, facility-based functional exercise; or

(B) A mock disaster drill; or

(C) A tabletop exercise or workshop that is led by a facilitator and includes a group discussion, using a narrated, clinically-relevant emergency scenario and a set of problem statements, directed messages, or prepared questions designed to challenge an emergency plan.

(iii) Analyze the hospital's response to and maintain documentation of all drills, tabletop exercises, and emergency events, and revise the hospital's emergency plan, as needed.

Therefore, the hospitals use an all-hazards approach to determine the community-risk and priorities of its emergency response preparation (training, drills, etc.) on the risk / priority. Maintaining the Contaminated Medical Emergency Drill annual frequency, places a false priority /risk and circumvent the 42 CFR 482.15 community all-hazards regulations for the hospitals.

Ambulance services are under different regulations (primarily state regulations) but serves the same demographic and has similar community-risk and priority profile. Per the 42 CFR 482.15 regulation, the hospital's emergency plan includes cooperation and collaboration of local emergency preparedness officials and an annual full-scale community-based drill. CEP Section O.1.a, NextEra will continue to offer emergency response training annually to the ambulance service(s). Training includes basic radiation protection, the notification process for their organization, and their organization's expected role.

This change removes the requirement for hospital and ambulance participation in the annual emergency medical drill. The proposed CEP revision retains all other previous Offsite Response Organization (ORO) arrangements including offered annually training, offered participation in drills and pre-arrangements documented in Letters of Agreement (LOAs).

NextEra stations will continue to meet the requirements of 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, Section IV.F.1. NextEra stations will continue to have arrangements with the OROs; annual training will be offered, and hospital participation in the emergency medical drill will be coordinated under 42 CFR 482.15 requirements. NextEra stations will participate in the hospital's community risk assessments to ensure the station's is properly risk evaluated and prioritized.

On-site emergency medical drill and training will be provided annually for the station's ERO. The training process/program will determine the need for additional on-site drills included in the training.

This drill participation arrangement was discussed with the OROs (hospitals and ambulance providers) and their concurrence is documented in Enclosure 10.

The 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations do not specify a frequency to perform the emergency medical drill. The annual frequency is specified in NUREG-0654 and provides the NRC approved guidance how to comply with the regulations. Licensees "may

Disposition

voluntarily use the guidance in the document to demonstrate compliance" with the NRC regulations or provide "methods or solutions that differ from those described." The alternate method of basing the drill frequency on the ORO community-risk assessment is appropriate and meets the intent of the planning standards. The change to the emergency medical drill scope retains the annual requirement for the station while allowing the hospital and ambulance service the ability to participate under and within their regulatory requirements. This should provide a commitment which the NRC can evaluate as an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations.

3.8.6 **[Potential RIE 7-6]** Reduced Biennial Report-In Drill Frequency to Cycle

NextEra Common Emergency Plan	**NUREG-0654 R2**
Each NextEra site will conduct an off-hours unannounced ERO report-in drill at least once within an eight-year cycle. The scope of the off-hours unannounced ERO report-in drill will require actual response to the assigned facility. The Off-Hours Report-In Drill requirement may be satisfied by an actual event provided objectives are evaluated and documented in a critique report.	N.4.h Off-Hours Report-In Drills Off-hours report-in drills are conducted biennially and are unannounced.

Disposition

The current emergency plan requires an off-hours unannounced report-in drills once in each 8-year cycle. NUREG-0654, Revision 2, Element N.4.h requires that off-hours report-in drills be unannounced and conducted biennially. The proposed NextEra Common Emergency Plan specifies that an unannounced off-hours report-in drill be performed once per 8-year cycle. Establishing the period for the off-hours report-in drill as once per 8-year cycle is based on the NUREG-0654, Revision 2, Element N.1.c requirement for a 6:00 p.m. and 4:00 a.m. drill or exercise to be performed once per cycle (which is off-hours). In addition to the requirement of Element N.1.c, every biennial exercise requires demonstration of ERO response and ERF activation following declared emergencies. Requiring additional biennial off-hours report-in drills is a burden to the organization without a commensurate level of benefit to the emergency preparedness program. Performance of the Element N.4.h call-in drill within the cycle periodicity provides sufficient demonstration of off-hours augmentation capability without significant impact on employees during late non-working hours.

3.8.7 **[Potential RIE 7-7]** Reduced Quarterly Call-In Drill Frequency to Biennially

NextEra Common Emergency Plan	**NUREG-0654 R2**
The NextEra ERO notification is an all-call process. Each NextEra site will conduct an off-hours unannounced ERO call-in drill biennially to verify each minimum staffing ERO position meets the required Table B-1 response time. The scope of the off-hours unannounced ERO call-in drill will require collection of the ERO notification system report which documents response within the required time.	N.4.i **Off-Hours Call-In Drills** Off-hours call-in drills are conducted quarterly, such that each ERO member's normally expected response time is assessed at least biennially based on call-in drill responses or an alternate means for determining response time. Some drills are unannounced.

NextEra Common Emergency Plan	NUREG-0654 R2
Completion of an Element N.4.h off-hours unannounced ERO report-in drill satisfies the requirements of the off-hours unannounced ERO call-in drill in this element. The Off-Hours Call-In Drill requirement may be satisfied by an actual event provided the objectives are evaluated and documented in a critique report.	

Disposition

NUREG-0654 R2, Element N.4.h designates that off-hour call-in drills be conducted at least quarterly, such that each ERO member's response time is validated at least biennially (with some drills being unannounced).

The proposed emergency plan specifies that off-hours call-in drill be performed biennially. Additionally, the non-period specific requirement for some drills to be unannounced has been established as a biennial frequency.

The NextEra ERO notification is an all-call process, which for call-in drills will collect response time estimates from the entire ERO. This process validates all ERO members' response time each time it is used.

Removing the quarterly requirement to test a portion of the ERO response and retaining the biennial requirement for a complete ERO response meets the intent of the NUREG-0654 element.

3.8.8 **[Potential RIE 7-8]** Added Minimum Staffing Drill Once per Cycle

NextEra Common Emergency Plan	NUREG-0654 R2
N.4.l **Minimum Staffing Drills** An ERO minimum staffing (no participation of non-minimum augmenting ERO personnel) drill is conducted at least once during every eight-year exercise cycle.	N/A
Each NextEra site will conduct a minimum staffing drill at least once within an eight-year cycle. A minimum staffing response drill requires facility activation, full transfer of responsibilities from the Control Room, and demonstration of event assessment and response activities.	

Disposition

There is no requirement to perform minimum augmenting ERO drills.

The proposed emergency plan has voluntarily added a requirement to conduct a minimum staffing drill once in each 8-year cycle to verify that the minimum augmenting ERO positions identified in the NextEra Common Emergency Plan can effectively implement the emergency plan without the assistance of additional support personnel.

Specific objectives will include timely facility activation, transfer of command and control, event assessment and classification, notification and response activities.

This change exceeds the ERO drill requirements of the current emergency plan and NUREG-0654 R2.

3.8.9 **[Potential RIE 7-9]** Added On-shift Response Drill Once per Cycle

NextEra Common Emergency Plan	NUREG-0654 R2
N.4.m **On-Shift Response** An ERO on-shift response (ERO augmentation no sooner than 90 minutes) drill is conducted at least once during every eight-year exercise cycle. Each NextEra site will conduct a minimum staffing drill at least once within an eight-year cycle. A minimum staffing response drill requires facility activation, full transfer of responsibilities from the Control Room, and demonstration of event assessment and response activities.	N/A

Disposition

There is no requirement to perform On-Shift Response Drill.

The proposed emergency plan has voluntarily added requirement to conduct one drill each 8-year cycle to verify that the on-shift ERO positions identified in the NextEra Common Emergency Plan can effectively implement the emergency plan without the support of augmenting ERO personnel for a minimum of 90 minutes after event declaration.

Specific objectives will include classification, notification and PAR functions with the on-shift staff.

This change exceeds the ERO drill requirements of the current emergency plan and NUREG-0654 R2.

3.8.10 **[Potential RIE 7-10]** Response Personnel Retraining Periodicity Not Specified

NextEra Common Emergency Plan	NUREG-0654 R2
Initial and continuing training is conducted to ensure ERO personnel are properly qualified to their specific position. Categories of ERO personnel requiring training include: 1. Emergency Directors (includes the aspect of classification, notification and PARs) 2. Accident Assessment 3. Radiation Protection and Monitoring a. ERO RPT position is qualified to ANSI technician standards. b. ERO RP Qualified Individual position is task qualified to perform the following: • Provide RP coverage for accessing known radiological environments (which includes respirator qualifications) • Control dosimetry and RCA access • Provide in-plant surveys c. ERO Field Monitoring Team Technicians receive initial training for the tasks they will be expected to	O.1 Each organization ensures the training of emergency responders and other appropriate individuals with an operational role is described in the emergency plan. Initial training and at least annual retraining are provided.

NextEra Common Emergency Plan	NUREG-0654 R2
perform during an emergency. The following general topics will be included in the training: • Equipment and equipment checks • Communications • Plume tracking techniques • Personnel monitoring • Emergency exposure criteria • Locations and use of radiological emergency equipment 4. Repair and Damage Control Teams a. Lead OSC Supervisor position is trained to perform RP supervisory tasks. b. Operations, maintenance, chemistry and radiation protection personnel who would be assigned to repair and damage control teams are trained as part of their normal job-specific duties to respond to both normal and abnormal plant conditions and work under direction of an ERO supervisor in the OSC. 5. Security a. Security personnel receive emergency plan training as part of their normal job specific training. b. Security personnel assigned a specific ERO position receive training on emergency plan related tasks. 6. Fire Brigade – Refer to the site fire protection program. 7. First Aid – Personnel assigned as first aid responders maintain qualifications equivalent to Red Cross Standard First Aid techniques.	

Disposition

As stated in section O.2 of the proposed emergency plan, the ERO training program is developed and evaluated based on position-specific responsibilities/tasks using Systems Approach to Training (SAT) principles, when applicable. The SAT process determines the necessary periodicity of the retraining (continuing training) on a task basis.

3.8.11 **[Potential RIE 7-11]** Training Program Review Periodicity Not Specified

NextEra Common Emergency Plan	**NUREG-0654 R2**
Changes to the training program are identified from trainee feedback and by critique items captured during drills and incorporated per the principles of the SAT process.	O.2.a The ERO training program is reviewed at least annually and revised as necessary.

Disposition

As stated in section O.2 of the proposed emergency plan, the ERO training program is developed and evaluated based on position-specific responsibilities/tasks using Systems Approach to Training (SAT) principles, when applicable. In addition to continuous training evaluation through drill and exercise critique process that identifies performance issues and initiates training reviews for particular tasks, the SAT process includes provisions for training program review.

3.9 Site Specific EP Commitment Analysis

This analysis identifies the PSL site-specific emergency preparedness commitments made to the NRC and determines whether they continue to be required in the proposed NextEra Common Emergency Plan or PSL Emergency Plan Annex.

The results of the analysis of on-going PSL site-specific NRC commitments and the commitments contained in the proposed NextEra Common Emergency Plan and PSL Emergency Plan Annex revealed that all site-specific NRC commitments are captured within the proposed emergency plan or procedures.

There are no new commitments identified in this analysis.

3.10 Impact of Proposed Changes on State Emergency Plan

A draft copy of the proposed NextEra Common Emergency Plan and PSL Emergency Plan Annex was sent to emergency preparedness representatives at the State of Florida Division of Emergency Management (DEM), Florida Department of Health Bureau of Radiation Control (FH-BRC), St. Lucie County, and Martin County to inform them of the proposed changes and solicit comments.

State and county personnel provided information via electronic mail stating that the agency concurs with PSL's initiative to develop the NextEra Common Emergency Plan and PSL Emergency Plan Annex. Further concurrence will be acquired upon NRC approval of the proposed NextEra Common Emergency Plan and PSL Emergency Plan Annex and revisions to the ORO emergency preparedness programs will be conducted during the requested implementation period.

Refer to Enclosure 10, Offsite Response Organization Concurrence, for agency response regarding proposed changes to the PSL emergency plan.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The proposed NextEra Common Emergency Plan establishes an updated licensing basis for the NextEra sites that complies with current NRC regulations in 10 CFR 50.47(b) and 10 CFR 50, Appendix E. In addition, the proposed NextEra Common Emergency Plan is formatted and uses the NRC-generated guidance in NUREG-0654/FEMA-REP-1, Revision 2 (Reference 6.8).

RIS 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation (Reference 6.13), was also reviewed in support of this submittal.

The proposed changes have been evaluated against the applicable regulatory requirements and guidance criteria. Each section of the proposed NextEra Common Emergency Plan lists applicable regulations (all 10 CFR 50.47(b) planning standards are addressed) and Appendix 3 of the plan includes a cross reference to the 10 CFR 50 Appendix E Section IV criteria. The proposed NextEra Common Emergency Plan continues to assure that regulatory requirements and emergency planning standards associated with emergency response are met.

4.2 Precedent

NUREG-0654/FEMA-REP-1, Revision 2, issued December 2019, reflects changes to both NRC and FEMA regulations, guidance, policies, and doctrine, as well as advances in technology and best practices that have occurred since the document was originally issued in November 1980. This update also incorporates the four supplemental documents and addenda that have been issued in the intervening years and is intended to modernize and consolidate the guidance making it easier for users to understand.

The following are industry precedents of licensees requesting and receiving approval for a change of the Emergency Plan based on NUREG-0654/FEMA-REP-1, Revision 2, guidance:

- Duke Energy Corporation (Reference 6.18)
- South Texas Project Nuclear Operating Company (Reference 6.20)
- La Crosse Boiling Water Reactor (LABWR) / Dairyland (Reference 6.23)
- Southern Nuclear Operating Company (Reference 6.24)

The above Duke Energy and Southern Nuclear Operating Company are also recent precedents of common fleet emergency plans.

4.3 No Significant Hazards Consideration Determination Analysis

Pursuant to 10 CFR 50.90 and 10 CFR 50.54(q), amendment to the licenses for PSL Units 1 and 2 is being requested. Specifically, the proposed changes would revise the PSL operating licenses to adopt the proposed NextEra Common Emergency Plan that includes the PSL Emergency Plan Annex.

By standardizing emergency plans, NextEra will make improvements to the fleet by increasing consistency of organizations, duties and responsibilities, procedures, and training. NextEra also will align the sites using consistent standards and definitions. The changes will make NextEra 's emergency plan easier to follow and understand.

The requested amendments to the licenses support changes to the PSL emergency plan based upon completion of a supporting evaluation of the proposed NextEra Common Emergency Plan and PSL Emergency Plan Annex. The proposed changes will help align the NextEra nuclear sites' emergency preparedness programs with NUREG-0654/FEMA-REP-1, Revision 2.

The proposed changes have been reviewed considering the applicable requirements of 10 CFR 50.47, 10 CFR 50 Appendix E and other applicable NRC guidance criteria. NextEra has evaluated the proposed changes and determined that those changes do not involve a Significant Hazards Consideration. In support of this determination, an evaluation of each of the three (3) standards, set forth in 10 CFR 50.92, *"Issuance of amendment,"* is provided below.

1. ***Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?***

   Response: No.

   The proposed changes do not increase the probability or consequences of an accident. The proposed changes do not impact the function of plant Structures, Systems, or Components (SSCs). The proposed changes do not affect accident initiators or accident precursors, nor do the changes alter design assumptions. The proposed changes do not alter or prevent the ability of the onsite ERO to perform their intended functions to mitigate the consequences of an accident or event. No changes are proposed to the ERO, emergency classifications, accident assessment, notification methods, facilities and equipment, training, or public agency support that would alter the consequences of an accident. The proposed changes establish a new NextEra Common Emergency Plan with site-specific annexes and modifies the emergency response organization (ERO). The new emergency plan continues to meet applicable requirements and standards as well as provide for effective emergency response. The new emergency plan also continues to provide necessary response staff for emergencies as demonstrated by functional analysis as well as staffing analysis in accordance with 10 CFR 50 Appendix E.IV.A.9.

   Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. ***Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?***

   Response: No.

   The proposed changes have no impact on the design, function, or operation of any plant SSCs. The proposed changes do not affect plant equipment or accident analyses. The proposed changes do not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed), a change in the method

of plant operation, or new operator actions. The proposed changes do not introduce failure modes that could result in a new accident, and the proposed changes do not alter assumptions made in the safety analysis. The proposed changes establish a new NextEra Common Emergency Plan with site-specific annex and modifies the emergency response organization (ERO). The new emergency plan continues to meet applicable requirements and standards as well as provide for effective emergency response. The new emergency plan also continues to provide necessary response staff for emergencies as demonstrated by functional analysis as well as staffing analysis in accordance with 10 CFR 50 Appendix E.IV.A.9.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

Margin of safety is associated with confidence in the ability of the fission product barriers (i.e., fuel cladding, reactor coolant system pressure boundary, and containment structure) to limit the level of radiation dose to the public.

The proposed changes do not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analyses. There are no changes being made to safety analysis assumptions, safety limits, or limiting safety system settings that would adversely affect plant safety as a result of the proposed changes. Margins of safety are unaffected by the proposed changes to the PSL emergency plan.

The proposed changes do not impact operation of the plant or its response to transients or accidents. The proposed changes do not involve a change in the method of plant operation, and no accident analyses will be affected by the proposed changes. Safety analysis acceptance criteria are not affected by these proposed changes. The proposed changes will continue to provide effective emergency response as well as the necessary onsite ERO response staff.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

4.4 Conclusions

In conclusion, based on the considerations discussed above: 1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, 2) such activities will be conducted in compliance with the Commission's regulations, and 3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

6.1 10 CFR 50.47, Emergency Plans

6.2 10 CFR 50.54(q), Conditions of licenses – Emergency Plans

6.3 10 CFR 50.90, Application for amendment of license, construction permit, or early site permit

6.4 10 CFR 50, Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities

6.5 Regulatory Guide 1.219, Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors, Revision 1, July 2016

6.6 NSIR/DPR-ISG-01, Interim Staff Guidance, Emergency Planning for Nuclear Power Plants, Revision 0, November 2011

6.7 NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Revision 1, November 1980

6.8 NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, , Revision 2, December 2019 (ML19347D139)

6.9 NUREG-0654/FEMA-REP-1 Supplement 3, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants – Guidance for Protective Action Strategies, November 2011 (ML113010596)

6.10 Technical Basis for the Proposed Guidance in NUREG-0654/FEMA-REP-1, Section II.B, “Emergency Response Organization” (ML16117A427)

6.11 NUREG-0696, Functional Criteria for Emergency Response Facilities, February 1981 (ML051390358)

6.12 NUREG-0737, Supplement 1, Clarification of TMI Action Plan Requirements – Requirements for Emergency Response Capability, January 1983 (ML102560009)

6.13 RIS 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation, August 2016 (ML16124A002)

6.14 NEI 10-05, Assessment of On-Shift Emergency Response Organization Staffing and Capabilities, Revision 0, June 2011

6.15 NEI 99-01, Development of Emergency Action Levels for Non-Passive Reactors, Revision 6, November 2012

6.16 PSL Updated Final Safety Analysis Report (UFSAR)

6.17 Letter from NRC to St. Lucie Plant dated December 1, 1981. The SER documenting approval of Revision 8 (dated April 1, 1981) of the St. Lucie Plant Emergency Plan

6.18 Letter from NRC to Duke Energy Corporation – Catawba Nuclear Station, Units 1 and 2; McGuire Nuclear Station, Units 1 and 2; Oconee Nuclear Station, Units 1, 2 and 3; Brunswick Steam Electric Plant, Units 1 and 2; Shearon Harris Nuclear Power Plant, Unit 1; and H. B. Robinson Steam Electric Plant, Unit No. 2 – Issuance of Amendments for Common Emergency Plan Consistent with NUREG-0654, Revision 2, dated August 26, 2021 (ADAMS Accession No. ML21155A213)

6.19 Letter from Duke Energy to NRC – *License Amendment Request for Common Emergency Plan Consistent with NUREG-0654, Revision 2*, dated September 3, 2020 (ADAMS Accession No. ML20247J468)

6.20 Letter from NRC to STP Nuclear Operating Company – South Texas Project, Units 1 and 2 – Correction to Amendment Nos. 221 and 206 to Authorize Revision of the Emergency Plan Based on NUREG-0654/FEMA-REP-1, Revision 2, dated May 11, 2021 (ADAMS Accession No. ML21120A184)

6.21 Letter from South Texas Project Nuclear Operating Company to NRC – *License Amendment Request to Revise South Texas Project Electric Generating Station (STPEGS) Emergency Plan*, dated March 30, 2020 (ADAMS Accession No. ML20090B745)

6.22 Letter from Southern Nuclear Operating Company to NRC – *License Amendment Request for Revise the Emergency Plan to Change Staffing and Extend Staff Augmentation Times for Emergency Response Organization Positions*, dated June 30, 2020 (ADAMS Accession No. ML20192A140)

6.23 La Crosse Boiling Water Reactor – Issuance of Amendment No. 77 Approving Independent Spent Fuel Storage Installation Emergency Plan, Revision 40, dated April 20, 2022

6.24 Letter from NRC to Southern Nuclear Operating Company – Farley Nuclear Plant, Units 1 and 2; Hatch Nuclear Plant, Units 1 and 2; and Vogtle Generating Plant, Units 1 and 2 – Issuance of Amendments Regarding Revision to Emergency Plan to Change Staffing and Extend Staff Augmentation Times for Emergency Response Organization Positions (ADAMS Accession No. ML21217A091)

Function	Position Title	NUREG-0654 R2				Current E-Plan				Proposed E-Plan		
		Shift	Alert 60 Min	Alert 90 Min	SAE 60 Min	Shift	Alert 30 Min	Alert 60 Min	SAE 60 Min	Shift	Alert 60 Min	Alert 90 Min
Plant Systems Operations	Unit Supervisor					2						
	Reactor Operator					4						
	Auxiliary Operator/Fire Brigade					7						
Command and Control / Facility Management	Shift Manager	1				1				1		
	Site Emergency Director (TSC)		1					1				1
	EOF Manager (EOF)				1				1			1
	TSC Supervisor (TSC)							1				
Emergency Classifications	Classification Advisor (CR)	1(a)								1(a)		
	Classification Advisor (TSC)		1					1				1
	RM Operations Advisor (EOF)								1			
Communications	Shift Communicator	1(a)				1(a)				1(a)		
	ORO Communicator (TSC)		1					1	1			1
	ENS Communicator (TSC)		1									1
	ORO Communicator (EOF)				1							
Supervision RP Activities	Shift Manager	1(a)								1(a)		
	TSC RP Coordinator (TSC)		1									1
	EOF RP Coordinator (EOF)				1							1
Radiation Protection	RP Technician	2	3	3		2	6	6		1		3
	RP Qualified Individual									1		2
Dose Assessments / Projections	Shift Dose Assessor	1(a)								1(a)		
	EOF Dose Assessor (EOF)		1				1					1
	Dose Assessment Coordinator		1						1			
	Remote Dose Assessor										1	
Field Monitoring Teams	Onsite FMT Technician		1					1	2			
	Onsite FMT Driver		1					1	2			
	Offsite FMT Technician (TSC)		1	1			2	2				2
	Offsite FMT Driver (TSC)		1	1								2

Function	Position Title	NUREG-0654 R2				Current E-Plan				Proposed E-Plan		
		Shift	Alert 60 Min	Alert 90 Min	SAE 60 Min	Shift	Alert 30 Min	Alert 60 Min	SAE 60 Min	Shift	Alert 60 Min	Alert 90 Min
Supervision of Repair Team Activities	Lead OSC Supervisor (OSC)		1					1				1
	FIN Supervisor (OSC)							1				1
	Electrical Supervisor (OSC)			1								
	Mechanical Supervisor (OSC)			1								
	I&C Supervisor (OSC)			1								
	RP Supervisor (OSC)			1								
	Maintenance Manager (TSC)											
	Chemistry Supervisor (TSC)											
Repair Team Activities	Electrician (OSC)		1				1	1				1
	Mechanic (OSC)		1					2				1
	I&C Technician (OSC)			1			1					1
	Chemistry Technician (OSC)							1				N/A
Engineering and Plant Monitoring	STA	1(a)				1		1		1(a)		
	Electrical/I&C Engineer (Remote)		1					1			1	
	Mechanical Engineer (Remote)		1					1			1	
	Reactor Engineer (Remote)		1				1				1	
Security	Security Shift Supervisor									1		
	Security Force	(b)				(b)				(b)		
	Security Liaison (TSC)		1									1
	Emergency Security Manager (EOF)								1			
Media Information	JIS / JIC Staff		(c)		(c)							
	Site JIS Manager (Site)									(c)		1
	Site JIS Coordinator (Site)									(c)		1
	Remoter JIS Manager (Remote)									(c)		1
Information Technology (IT)	IT Coordinator (TSC)			1								(d)
	IT Coordinator (EOF)				1							(d)
ERO Totals – Full Breakdown		**3**	**20**	**11**	**5**	**5**	**12**	**23**	**9**	**4**	**4**	**26**
ERO Totals – On-shift and Minimum Staffing		**3**	**36**			**5**	**44**			**4**	**30**	
ERO Totals – All Required Positions Filled		**39**				**49**				**34**		

(a) Individuals assigned to these positions may have collateral duties. On-Shift Staffing Analysis confirmed that assigned individuals can adequately perform collateral functions without having competing priorities.

(b) Per the site Security Plan.

(c) Does not need to be performed in the JIC, but function needs to be established at this point. ERO response to and activation of the JIC is coordinated with the offsite agencies and carries no time requirement.
(d) IT personnel monitor critical digital assets remotely and respond any time an issue is identified.

Enclosure 3

Florida Power & Light Company

Turkey Point Nuclear Generating Plant, Units Nos. 3 and 4

Dockets 50-250 and 50-251 / Renewed Facility Operating Licenses DPR-31 and DPR-41

License Amendment Request for Common Emergency Plan
Consistent with NUREG-0654, Revision 2

EVALUATION OF PROPOSED CHANGES

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1.0 SUMMARY DESCRIPTION

Pursuant to 10 CFR 50.90, Florida Power & Light Company (FPL) requests amendments to the operating licenses for Turkey Point Nuclear Generating Plant (PTN) Units 3 and 4. Specifically, the proposed changes would revise the operating licenses to adopt the proposed NextEra Common Emergency Plan and site-specific annexes. The proposed NextEra Common Emergency Plan establishes an updated licensing basis for PTN that complies with current NRC regulations in 10 CFR 50.47 (Reference 6.1) and 10 CFR 50 Appendix E (Reference 6.4), and the guidance NUREG-0654/FEMA-REP-1 Revision 2 (Reference 6.8).

NextEra has developed the proposed common emergency plan using the NUREG-0654/FEMA-REP-1 Revision 2 outline and is organized such that each evaluation criterion (or planning element) is explicitly stated, followed by a description of how the NextEra Common Emergency Plan will address that criterion.

The proposed NextEra Common Emergency Plan provides the basis for response actions that would be implemented in an emergency and the requirements for maintenance and administration of the emergency preparedness program. Planning elements common to all sites are encompassed within the common emergency plan. The site-specific annexes generally contain unique information such as:

- Local agency and support organizations, site specific agreement lists, etc.
- Site specific response facilities and equipment
- Site specific commitments

The formal PTN Emergency Plan consists of the following separately maintained Emergency Preparedness (EP) licensing basis documents, all of which are subject to the requirements of 10 CFR 50.54(q) (Reference 6.2):

- NextEra Common Emergency Plan
- PTN Emergency Plan Annex
- PTN Emergency Action Level Technical Basis
- PTN On-Shift Staffing Analysis
- PTN Evacuation Time Estimate Study
- PTN Protective Action Recommendation Strategy Technical Basis
- PTN Alert and Notification System Design Report

Enclosures 5 through 9 contain the proposed NextEra Common Emergency Plan and the site-specific emergency plan annexes, respectively. This license amendment request is limited to the proposed NextEra Common Emergency Plan, PTN Emergency Plan Annex, and the On-Shift Staffing Analysis, of which only the proposed NextEra Common Emergency Plan and the PTN Emergency Plan Annex require NRC approval. The results of the On-Shift Staffing Analysis are described in Section 3.5 of this change evaluation. The remaining Emergency Plan licensing basis documents are not affected by the re-baselining of the PTN Emergency Plan.

2.0 DETAILED DESCRIPTION

2.1 Proposed Changes

The proposed NextEra Common Emergency Plan was developed based upon NRC guidance contained in NUREG-0654/FEMA-REP-1, Revision 2 (Reference 6.8).

This re-baselining of the emergency plan includes revisions to align staffing with the functions and major task delineations, specifically the on-shift and minimum augmenting Emergency Response Organization (ERO) assigned within these functional areas. Consistent with the NUREG-0654/FEMA-REP-1, Revision 2, the proposed changes will also remove reference to non-minimum augmenting ERO positions from the emergency plan while retaining appropriate positions in the applicable implementing procedures.

Changes in the proposed NextEra Common Emergency Plan and PTN Emergency Plan Annex that could be considered a reduction in effectiveness (RIE) from the updated NUREG-0654/FEMA-REP-1, Revision 2, guidance or from the current PTN emergency plan have been identified in this document as potential RIEs. Detailed justification is provided for those potential RIEs in Section 3, Technical Evaluation, to document that the proposed NextEra Common Emergency Plan and PTN Emergency Plan Annex continues to provide an adequate response to radiological emergencies.

- Section 3.1 documents the technical advancements and program enhancements implemented after the original Emergency Plan was approved or are included in the proposed Emergency Plan
- Section 3.2 documents and dispositions the RIEs determined in the ERO functional analysis
- Section 3.3 documents and dispositions the RIEs determined in the ERO augmentation analysis
- Section 3.4 documents and dispositions the RIE determined in the ERO task analysis
- Section 3.5 documents the results of the ERO on-shift staffing analysis
- Section 3.6 documents and dispositions the RIEs determined in the approved Emergency Plan to current Emergency Plan comparison analysis
- Section 3.7 documents and dispositions the RIEs determined in the proposed Emergency Plan to current Emergency Plan comparison analysis
- Section 3.8 documents and dispositions the RIEs determined in the proposed Emergency Plan to NUREG-0654/FEMA-REP-1, Revision 2, criterion comparison analysis
- Section 3.9 documents the results of the site specific commitment analysis
- Section 3.10 documents the impact of the proposed changes on state and ORO emergency plans

Additionally, an Emergency Plan to 10 CFR 50 Appendix E comparison analysis was developed. The results of this analysis are documented in Appendix 3 of the proposed NextEra Common Emergency Plan (Enclosure 5).

2.2 Reason for the Proposed Changes

The PTN emergency plan is being converted into the proposed NextEra Common Emergency Plan and PTN Emergency Plan Annex, which are based primarily on the NUREG-0654/FEMA-REP-1 Revision 2 guidance.

By standardizing the emergency plans across the fleet, NextEra will make program wide improvements by standardization of response organizations, duties and responsibilities, processes, procedures, and training. NextEra also will align the sites using consistent standards and definitions.

2.3 Current PTN Emergency Plan Background

Florida Power & Light letter L-81-365, dated August 24,1981 (Reference 6.17), documents the final post-TMI version of the emergency plan submitted to the NRC which addressed clarification of items identified by the NRC and other planning commitments.

3.0 TECHNICAL EVALUATION

The evaluation of the proposed changes is discussed below.

3.1 Technical Advancements and Program Enhancements

The sub-sections below describe the site-specific and industry improvements implemented or proposed since the last revision of the NUREG-0654 /FEMA-REP-1 guidance and initial approval of the PTN emergency plan. The industry has had the following generic process, program and technical change enhancements:

- Plant systems and procedures, including:
  - Severe Accident Management Guidelines (SAMG)
  - FLEX Support Guidelines (FSG)
  - Extensive Damage Mitigation Guidelines (EDMG)
  - EOP/AOP
  - Plant computer, control and instrumentation systems
- Emergency preparedness (EP) programs, processes, and equipment, including:
  - Communication and notification systems (Plant and public)
  - Dose Assessment programs and processes
  - Emergency Action Levels (EALs)
  - NRC ERDS system
- Operator, ERO, and General Employee Training (GET) training
- Radiological monitoring systems
- Computer and internet usage
- Work Control – Risk Assessment

Many of the advancements and enhancements have resulted from responses to Three Mile Island, Chernobyl, September 11th, and Fukushima. These changes have been instituted and codified, in many cases, which better supports ERO functions, ease operator burden, and improves augmented ERO efficiency.

In addition to site specific and industry enhancements, the Nuclear Regulatory Commission (NRC) has updated and improved on regulations, guidance documents (NUREGs), inspections (ISGs), Regulatory Issue Summaries (RISs), etc. which has resulted in overall positive emergency preparedness programs. Specifically, the Emergency Preparedness Final Rule (10 CFR 50.47, Emergency Plans and Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities, to 10 CFR 50 (published in the Federal Register (FR) on November 23, 2011 (76 FR 72560)) codified Emergency Preparedness program enhancements for security and non-security event related topics. The Final Rule included improvements and clarity based upon technology advances implementation and lessons learned from drills/exercises and actual events. The Final Rule included the following:

- On-Shift Staffing Analysis

- Emergency Response Organization Augmentation at Alternate Facility
- Licensee Coordination with Offsite Response Organizations
- Protective Actions for Onsite Personnel
- Challenging Drills and Exercises
- Emergency Declaration Timeliness
- EOF – Performance-Based Approach
- Backup Means for Alert and Notification Systems
- ORO Event Response Integration with Nuclear Power Plants
- Emergency Action Levels (EALs) for Security Events
- Amended Emergency Plan Change Process
- Updating of Evacuation Time Estimates (ETEs)

The improvements to processes, procedures, equipment, and training that have occurred since initial approval of the PTN emergency plan have resulted in a significant increase in on-shift and augmented ERO knowledge and capability.

These improvements collectively support the overall conclusion that there would be no degradation or loss of function resulting from the changes in the proposed PTN emergency plan.

3.1.1 Information Gathering and Display Systems

PTN's plant computer system has been upgraded several times since the original PTN emergency plan was approved in 1981. The current system, Digital Control System (DCS) / Emergency Response Data Acquisition and Display System (ERDADS) graphically displays pertinent parameters with trending and graphing capabilities, alarm functions, and color-coded Critical Safety Function Status Trees. DCS/ERDADS provides the capability to monitor and trend plant parameters in real-time, including primary coolant system parameters, reactor core thermal performance parameters, emergency core cooling system (ECCS) parameters, meteorological data, containment isolation status, and radiation monitor readings.

The DCS/ERDADS user interface was designed to be intuitive, require inputs, and allow for active monitoring of real-time plant data via system diagrams and Critical Safety Function displays. The DCS/ERDADS computer system is powered via Vital AC Power with a DC battery backup.

Benefits of the upgraded DCS/ERDADS system include:

- Programming capability for automated response, such as indication of critical parameter alarms
- Improved plant monitoring capability for Emergency Director and STA functions
- Fewer inputs required to switch between graphical displays
- Real-time plant data available through graphical displays

Additionally, the DCS/ERDADS provides plant and environmental data used to assess abnormal operating conditions and mitigate the consequences of an accident. DCS/ERDADS performs the following emergency response support functions:

- Implementation of the Safety Parameter Display System as described in NUREG-0696 and NUREG-0737, Supplement 1.
- Data acquisition and signal processing for the Engineered Safety Features Status Monitoring System.
- Data acquisition and signal processing for the normal plant monitoring systems, including portions of the plant annunciator system.
- Data processing for offsite datalinks to the NRC Emergency Response Data system (ERDS).

DCS/ERDADS workstations are provided in the Control Room, Auxiliary Shutdown Panels (ASP), TSC, and EOF.

3.1.2 Dose Assessment and Protective Action Recommendations

The original PTN emergency plan included exposure and dose rate determination using transparent overlays showing lines of constant dose appropriate for the existing meteorological conditions together with appropriately scaled maps of the area surrounding the plant (a manual method). Since then, radiological dose assessment has benefited from technological advances that make its use simpler and less time consuming. Dose assessment program advancements have simplified rapid assessment capability, and on-shift dose assessment, allowing the function to be performed as a collateral duty.

NextEra fleet will implement the Unified RASCAL Interface (URI), a user friendly Visual Basic.net program. The current version of URI is a Microsoft Windows-based application and supports multi-unit / multi-accident assessment of radiological releases. URI utilizes menus and toolbars with the majority of inputs on a single screen making the program user friendly. URI has simplified data entry requirements and dose assessment can be performed with minimal data input. URI displays have been developed to obtain the necessary plant, radiological effluent, area radiation monitor, and meteorological near-real time information that is used by on-shift and augmenting ERO personnel to perform dose assessment. Thus, dose assessment enhancements have reduced the time required to perform dose assessment and to provide the results to the Emergency Director.

Redundant dose assessment computers were installed as part of the implementation of Cyber Security requirements. PTN has an individual plant data screen dedicated to the needs of dose assessment inputs.

The plant display systems (see discussion above) have improved over the years allowing access to more data points used with dose assessment.

Dose assessment results and field monitoring readings assist in evaluating appropriate Emergency Classification Levels (ECLs) based on radiological Emergency Action Levels (EALs) and developing Protective Action Recommendations (PARs).

The ERO uses NUREG-0654, Revision 1, Supplement 3 based flowcharts to determine the appropriate Protective Action Recommendation to provide to offsite authorities, which allow for rapid determination of a PAR based on plant conditions, wind direction and radiological assessments.

The overall improvements in technology and information availability over the years have enabled the on-shift staff to assess plant conditions quickly and efficiently, and with less distraction than before. The computational power of modern processors allows for calculation of dose projections that take seconds rather than minutes.

3.1.3 Procedural Improvements

a. Emergency Operating Procedures (EOPs)

Since the original PTN emergency plan approval, EOPs have been developed and improved through industry initiatives. EOPs generally use a symptom-based approach that demands less assessment and interpretation of plant conditions by the operators. In addition, the EOPs are better human factored, and have an improved layout allowing for more consistent implementation.

EOPs interface well with new technology such as the DCS/ERDADS. The DCS/ERDADS is capable of graphically displaying plant conditions to assist in EOP execution.

b. Emergency Action Levels (EALs)

FPL has updated its EAL scheme to the latest NRC endorsed scheme published in NEI 99-01, Development of Emergency Action Levels for Non-Passive Reactors, Revision 6. The PTN EALs incorporate the new guidance that has simplified the classification process, including the use of a matrix of EAL initiating conditions that streamlines the process of evaluating EALs against plant conditions.

3.1.4 Training

a. Operations Training

Training is used to strategically drive improved performance at the NextEra sites. Since NRC approval of the PTN emergency plan, use of the Systematic Approach to Training process has resulted in developing a task list for operations personnel. This process ensures training is conducted to industry-accepted standards and has led to accreditation of the Operations Training Programs by the Institute of Nuclear Power Operations (INPO) National Academy for Nuclear Training.

The simulator is routinely used during operations training. Simulator requalification evaluations include emergency response scenarios. Simulator scenarios are designed to be realistic and reflect a wide range of plant conditions, including emergency conditions. During simulator-evaluated sessions the Control Room staff is taken from normal operations to accident conditions which require evaluation against EALs and may result in an ECL up to a General Emergency. The operations crew performs emergency plan critical functions, such as classification, core damage assessment, accident mitigation, response prioritization, and communications without augmentation from additional responders. The proficiency of the Control

Room staff in performing these functions, while maintaining situational awareness, without additional support is assessed during evaluated simulator sessions.

The Licensed Operator Requalification program includes licensed operations crew performance evaluations that are to consider the scenario guidance attributes of INPO Operations Department Standing Instruction, ODSI-3, Operations Department Guidance for Conducting Crew Performance Evaluations.

INPO ODSI-3 provides guidance on the realistic integration of the emergency response into crew performance evaluations. The purpose is to ensure the challenges the Emergency Plan responsibilities add to the crew's ability to manage an event are realistically represented in crew training and performance evaluations.

b. Shift Technical Advisor Training

The Shift Technical Advisor (STA) was originally trained as an advisor to the operating shift per NUREG-0737, Clarification of TMI Action Plan Requirements. In 2014, additional guidelines were developed by INPO for the training of STAs. This is detailed in the document ACAD 14-002, Guidelines for the Training and Qualification of the Shift Technical Advisor.

The ACAD 14-002 guidelines describe the role of the STA. The STA performs independent assessments of plant operating concerns, technical support, appropriate corrective actions, analysis of events and their effects, effectiveness of response(s) to emergent conditions, classifications of emergencies, protection of the public and any other actions related to critical safety functions and plant safety during abnormal and emergency situations. By routine monitoring of equipment and plant operations, the STA can focus on preventative actions in order to mitigate the consequences of an accident.

The STA training and qualification program adheres to the requirements of INPO 90-003 and is implemented by training program procedures.

3.1.5 Radiation Protection (RP) Improvements

There have been many improvements in RP since the ERO staffing was established under NUREG-0654, Revision 1, guidance. There have been advances in technology for currently available equipment such as portal monitors, self-reading and alarming dosimeters, and automated access control points.

Some RP support functions associated with in-plant protective actions, such as access control, personnel monitoring, and dosimetry are now included in rad worker training and qualification given to operations and maintenance personnel. These tasks now require much less dedicated support from RP personnel since they are performed by a broader segment of the organization using newer technology, tools, and plant process enhancements. The following summarizes these enhancements:

a. Access Control and Dosimetry

When the PTN emergency plan was originally issued, radiological access control was a labor-intensive task. Dedicated Radiation Protection Technicians (RPTs) were required to ensure workers read and understood their Radiation Work Permit (RWP). Issuance of dosimetry was a manual process requiring RPTs to calibrate, issue and record dosimeters, verify worker training, and verify and track radiation dose margins.

Radiological access control is now automated using computerized radiation protection work processes. Radiological access control is primarily completed using electronic dosimetry, which is obtained prior to entry into Radiologically Controlled Areas (RCAs). The electronic dosimeter is also used as a "key" to unlock turnstiles to gain access to RCAs. Electronic RWPs establish the necessary preset electronic dosimeter warning and alarm parameters. Using electronic dosimeters eliminates the need for access control and dosimetry oversight by an RPT. Electronic RWP access control and electronic dosimeter computer systems provide a fully integrated system allowing workers to sign-in to their RWP and to self-issue electronic dosimeters. These systems have been routinely used by plant workers for numerous years. Additionally, emergency electronic dosimeters are available for use when expedited entrance to an RCA is required.

b. Personnel Monitoring

Automated whole-body and extremity monitors provide simplified contamination monitoring. All radiation workers are qualified to use the automated whole-body monitors without RPT support or direction.

When the automated whole-body monitors are not available, hand-held friskers can be used for personnel contamination monitoring. All radiation workers are qualified to use the hand-held friskers without RPT support or direction.

3.1.6 Automated Call-Out Systems

Since initial approval of the PTN emergency plan, NextEra has implemented enhancements to the ERO mobilization process, including updated technology capable of rapidly notifying the entire ERO. The original process used a pager network and call tree process, while the current process uses a multi-line automated callout system that notifies ERO members via cell phones, home phones and internet (as applicable) via a single activation call from any telephone. For redundancy, the automated notification system has a primary and backup facilities located in different geographic locations with separate computer systems and databases, and communications lines.

3.2 ERO Key Function Analysis

The ERO Key Function Analysis compares and evaluates the current emergency plan on-shift and minimum staff ERO positions against those in the proposed emergency plan and in NUREG-0654 R2 guidance. Staffing deviations in the proposed emergency plan from the current emergency plan and NUREG-0654 R2 are categorized as potential RIEs and evaluated to determine whether the capability to perform the function is sustained (no degradation or loss of function).

Refer to Attachment 1, ERO Staffing Plan Comparison Table, for a side-by-side summary staffing and augmentation comparison between NUREG-0654 R2 Table B-1, the current emergency plan, and the proposed emergency plan.

The Key Function Analysis establishes that no degradation or loss of function, or mis-alignment or loss of task assignment would occur as a result of any change made to the on-shift and minimum augmenting ERO positions. This alternate staffing approach continues to support timely and effective performance of the Major Functional Areas and Major Tasks listed in NUREG-0654 R2 Table B-1.

3.2.1 **[Potential RIE 1-1]** No EOF Director/ED Position

The proposed emergency plan does not assign an EOF Emergency Director minimum staff ERO position at the Site Area Emergency classification level for the Command and Control function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Command and Control function from two (2) to one (1). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *For a SAE ECL, or greater, these functions (or a subset of them), typically those associated with protective action recommendations (PARs), should be assigned to an Emergency Director located in the EOF….*

The NextEra TSCs and EOFs are activated at an Alert emergency classification level. By activating both the TSC and EOF at an Alert emergency classification level and maintaining the non-delegable tasks of classification, notification, and PARs in the TSC, the proposed emergency plan does not need to provide additional augmenting ERO positions to move those tasks between emergency response facilities.

An EOF Emergency Director minimum staff ERO position is not needed at the Site Area Emergency classification level as the Command and Control function, along with all non-delegable responsibilities, are transferred from the Shift Manager to the Site Emergency Director at the Alert emergency classification level and remain in the TSC throughout a declared emergency. This change in the proposed emergency plan simply retains the Command and Control function in the TSC with the Site Emergency Director.

3.2.2 **[Potential RIE 1-2]** No EOF ORO Communicator Position

The proposed emergency plan does not provide a EOF ORO Communicator minimum staff ERO position at the Site Area Emergency classification level for the Communications function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the ORO aspect of the Communications function from two (2) to one (1). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee. These are typically located in the TSC. For an SAE ECL, or greater, at least 1 additional communicator should be staffed in the EOF.*

NUREG-0654 R2 guidance designates the Offsite Response Organization (ORO) (State/County) communication location as 'typically' in the TSC based on staggered activation of the emergency response facilities.

The NextEra TSCs and EOFs are activated at an Alert emergency classification level. By activating both the TSC and EOF at an Alert emergency classification level and maintaining the non-delegable tasks of classification, notification, and PARs in the TSC, the proposed emergency plan does not need to provide additional augmenting ERO positions to move those tasks between emergency response facilities.

An EOF State/County Communicator minimum staff ERO position is not needed at the Site Area Emergency classification level as the Communications function for the ORO remains in the TSC throughout a declared emergency. This change in the proposed emergency plan simply retains the Communications function for the ORO in the TSC.

3.2.3 **[Potential RIE 1-3]** On-shift RP Personnel Allowed Collateral Duties

The proposed emergency plan allows collateral duty assignments to be given to radiation protection personnel when performing the Radiation Protection function. Specifically, this change allows radiation protection personnel to perform the Dose Assessment /Projections function and support other on-shift actions when not assigned a response activity. This change deviates from the NUREG-0654 R2 on-shift staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *The ability to provide radiological expertise when the plant is experiencing an event with serious radiological consequences is crucial, due to the unknown radiological environment faced by emergency workers, particularly at the onset of the event. This function should be staffed by 2 qualified RP staff members on-shift (or 1 per unit for multi-unit sites). These staff members should not have any collateral duties during emergency response.*

Consistent with NUREG-0654 R2, the proposed emergency plan assigns the Dose Assessments / Projections as a collateral duty. This emergency response collateral duty can be assigned to any on-shift individual qualified in Dose Assessment.

Personnel who are not ANSI qualified RPTs, such as an appropriately trained and qualified operator or a chemistry technician, may be assigned to the dedicated on-shift RPQI position. When the RPQI position is not filled by a qualified ANSI RPT, they cannot be given time sensitive or other tasks during emergency response that interfere with the Radiation Protection function.

3.2.4 **[Potential RIE 1-4]** Fewer OSC RP Response Personnel

The proposed emergency plan reduces the number and qualifications of minimum staff ERO positions for the Radiation Protection function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Radiation Protection function from six (6) in the current emergency plan and in NUREG-0654, to five (5) in the proposed emergency plan, consisting of three (3) RPTs and two (2) RP Qualified individuals that are task trained but not required to be ANSI equivalent RPTs. This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *While not all Alert ECLs (or lower) have radiological consequences, licensees should develop their ERO staffing plans for a worst-case scenario from a radiological risk perspective, i.e., an event which results in the immediate (within 60-minutes) loss of 2 or more fission product barriers leading to significant and unknown radiological conditions. The augmentation (support) of this position should occur in two stages: within 60 minutes of an Alert ECL or greater, 3 additional qualified RP staff should be available, and within 90 minutes of an Alert ECL, or greater, an additional 3 additional qualified RP staff should be available, and both are typically staffed in the OSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Personnel assigned to perform this function should be fully qualified HP technicians as described in ANSI/ANS-3.1-1993, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants," that was approved for use by Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants."14 Personnel who are typically trained to a level of "meter qualified" to perform basic HP duties are not trained or do not have the necessary experience to perform complex HP duties, as discussed in HPPOS-0238, that would be necessary in a radiological emergency. For example:*
>
> *(1) Typically the training does not include providing HP coverage for other personnel.*
>
> *(2) Radiation protection is not normally incorporated into normal job duties.*
>
> *(3) Radiological conditions during an emergency may be unknown or rapidly changing.*
>
> *The following Emergency Plan functions would constitute in-plant protective actions, which would require a fully qualified HP technician:*

- *Provide guidance for personnel protection to assist in minimizing personnel exposure.*
- *Provide guidance for exposure authorizations, dose guidelines, and post-exposure assessments.*
- *Provide job coverage for in-plant repair and corrective actions, and operations support, under changing radiological conditions.*
- *Provide guidance for emergency decontamination of personnel, equipment, and facilities.*
- *Provide guidance for personnel contamination control and respiratory protection.*

NUREG-0654 R1 lists the RPT functions assigned to the six augmenting OSC RPTs as:

- In-Plant Surveys
- HP coverage for repair, corrective actions, search, and rescue first aid & firefighting
- Personnel Monitoring
- Dosimetry
- Access Control

These functions have been reworded but remain similar in NUREG-0654 R2 as:

- Provide in-plant surveys
- Provide radiation protection coverage for responders accessing unknown radiological environments during emergency conditions
- Control dosimetry and control area access

The number of augmenting RPTs for the above functions in NUREG-0654 R2 Table B-1 has not changed from the number in NUREG-0654 R1 Table B-1.

The following guidance documents were considered in the staffing of augmenting ERO radiation protection personnel in the common emergency plan:

- Per RIS 2016-10, the licensee could show that the basis for the justification includes the availability of installed area, process, airborne and effluent radiation monitors, automated systems and information technology solutions, and enhanced work processes that would be available under accident conditions. Supporting tools and processes that may be considered include portal monitors, self-alarming dosimeters, and automated access control system for the radiologically controlled area (RCA) that maintain active radiation work permits, which are readily available if an emergency is declared (e.g., the system verifies qualifications, dose margins, and access requirements).
- Per HPPOS-238, Health Physics Technicians (HPTs) may independently perform specific tasks or job assignments if they meet the required prerequisites and complete the required task qualifications of their plant training programs. There are certain tasks and job assignments, however, that require in-depth knowledge and can only be performed by fully qualified ANSI technicians.

NextEra controls the qualification of the ERO as outlined in 10 CFR 50.47(b)(15). To ensure that qualifications are consistent throughout the fleet, the RPQI qualification requirements are maintained in Section O of the proposed emergency plan. The RPQI

ERO personnel will be task qualified to the tasks listed in NUREG-0654 Revision 2 Table B-2 (shown above)

This approach meets the intent of 50.47(b)(15) and allows the Systematic Approach to Training (SAT) process to determine and control the RPQI qualification requirements by task. The proposed emergency plan will utilize the SAT process to set the qualification requirements of the RPQI, independent of an ANSI 8.1 standard, while ensuring that all personnel are trained to be able to respond to an emergency – not to be a day-to-day RPT.

Per NUREG-0713, Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities 2004 and Draft Tables and Figures for 2020 NUREG-0713, the Average Measurable TEDE per individual has decreased from 0.31 rem (1995) to 0.09 rem (2020). Advances in technology in access control, electronic dosimetry (personnel monitoring and remote monitoring), pre-developed RWPs (for normal and for emergency conditions), and ARM/PRM plant computer information display systems reduce radiation protection personnel involvement in radiological activities and have contributed to the decrease.

- Dosimetry and access control is established using technological means to ensure that personnel wear the correct dosimetry into the radiological controlled area and are signed onto the RWP (affirming that they have read and understand the RWP). Telemetry with field communications and dosimetry can provide the RP personnel all data that one would have previously needed equipment and multiple personnel to perform.
- On-shift and augmented ERO radiation protection coverage is monitored and provided by radiation protection personnel. The radiation protection personnel ensure that dispatched personnel are provided real time information on radiological conditions when deployed and if conditions change at the work location. In-plant radiological conditions are provided using technology available to the radiation protection personnel on the plant computer information display systems.

As this technology has become more integrated at NextEra sites and throughout the industry for normal and outage operations their use has become common-place. As such, radiation protection personnel that are properly trained on the technology outlined here are proficient with their use in emergency response functions. These enhancements would be used during a radiological emergency.

The OSC utilizes the day-to-day “Fix-It-Now” (FIN) Team concept, which includes radiation protection support as necessary. OSC minimum staffing requires 3 craft personnel. An RPT would monitor plant conditions remotely and assist the Lead OSC Supervisor with RP oversight activities while the other RP personnel (RPTs and RPQIs) could be tasked with providing coverage for craft personnel if a team is dispatched into a radiologically controlled area.

All NextEra sites are Pressurized Water Reactor (PWR) designs. There are fewer radiologically controlled areas at PWRs than at Boiling Water Reactor (BWR), which allows for less RP support staff during normal operations. Per Draft Tables and Figures for 2020 NUREG-0713, the Average Collective Dose per Reactor in 2020 is 31 person-rem at PWRs and 95 person-rem at BWRs. Even with a SG tube rupture using the main condenser as the cooldown medium, the turbine buildings will not be unmanageable with the responders as the major steps of each site’s emergency operating procedures for a SG tube rupture will have completed their major functions of “identify – isolate – cooldown – depressurize – terminate safety injection” are expected to be complete prior

to ERO arrival. All temperature control steps later in the procedures where the ERO may be present will be minimal temperature control steps which send minimal additional contaminated steam into the secondary systems. As the limiting accident that will expand radioactively controlled/ contaminated areas outside of the radiologically controlled area, there is no need to staff PWR sites at the same level outlined in the NUREG, which factored in BWR designs into their calculations for staffing levels.

The above statements support the position that Radiation Protection function can be performed by the four augmentation radiation protection personnel ERO positions.

3.2.5 **[Potential RIE 1-5]** No On-site Field Monitoring Team

The proposed emergency plan does not staff the onsite field monitoring minimum staff ERO position for the Field Monitoring Teams function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the onsite field monitoring aspect of the Field Monitoring Teams function from two (2) to zero (0). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *The ability to locate, monitor, and track a radioactive plume is important to ensure appropriate protective measures are taken in response to a radiological event. The ability to staff these teams before they may be needed (i.e., before a radiological release) greatly enhances the ability of the licensee to provide timely and accurate PARs.*
>
> - *An onsite FMT should be staffed, consisting of a monitor and a driver. This onsite FMT is responsible for radiological monitoring of the site's Protected Area. …*
>
> *i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.*
>
> *iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.*

NUREG-0654 R2 Table B-1 guidance for augmenting Field Monitoring Team staffing has not changed from NUREG-0654 R1 (six total personnel) despite the technology (equipment and communications) and process advancements in the last 40+ years.

NUREG-0654 R2 designates one on-site (including inside of the Protected Area) Field Monitoring Team and one off-site Field Monitoring Team responding in 60 minutes to be ready to respond to a radiological release or to detect the radiation in the field thus confirming and quantifying a release. A second off-site Field Monitoring Team responding in 90 minutes is added to back up the first off-site Field Monitoring Team.

On-site Field Monitoring Team Driver ERO Position

On-site survey and sampling activities are performed without a vehicle since the site Protected Area boundaries are relatively small and plume tracking is not applicable. The Protected Area can be easily and efficiently traversed on foot or in a utility vehicle. The survey equipment is portable and does not require two individuals for transport or operation. Thus, there is no need for an on-site Field Monitoring Team Driver.

On-site Field Monitoring Team Technician ERO Position

The current emergency plan utilizes two Field Monitoring Teams, primarily assigned to monitor conditions outside the Protected Area. NextEra typically uses an individual from the pool of OSC radiation protection personnel to perform on-site out-of-plant (inside the Protected Area) surveys if needed. However, one of the two Field Monitoring Teams may be call upon to enter the Protected Area to perform surveys when OSC radiation protection personnel are assigned other tasks.

For NextEra stations, two Field Monitoring Teams are sufficient to perform on-site and off-site field monitoring activities. All NextEra sites are located on major bodies of water (their EPZs being approximately 40% water or greater) with no requirements nor capabilities for monitoring activities on these bodies of water. As each site's EPZ is ~40+% water, there is not as much area to cover for the field monitoring teams. With NextEra EPZs being effectively smaller than landlocked sites, less personnel are needed to cover an effectively smaller EPZ.

Additionally, the NUREG-0654 R2 technical basis for the ERO staffing guidance includes the following clarification:

> *The onsite FMT should not be staffed if the radiological conditions jeopardize the safety of the FMT, typically after a Site Area Emergency has been declared.*

Based upon NRC guidance two Field Monitoring Teams are sufficient to monitor radiological conditions after a SAE is declared. By not designating onsite and offsite FMTs, a total of two FMTs can sufficiently provide radiological monitoring at NextEra stations under all conditions.

3.2.6 **[Potential RIE 1-6]** No Dedicated On-shift STA

The proposed emergency plan does not assign a dedicated on-shift individual to the Engineering function. Specifically, this change reduces the overall number of on-shift minimum staff ERO positions used for the Engineering function from one (1) to zero (0). This change deviates from the current emergency plan on-shift staff ERO position requirements.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *An engineer to monitor and evaluate changing core/thermal hydraulic issues is important to effective emergency response because monitoring and evaluating core conditions, or thermal hydraulic conditions of the reactor coolant system, can support timely corrective action(s), ECL declarations, and subsequent PARs. Radiological events from a power reactor come from damage to an operating reactor core, or the systems used to cool the core, and engineering expertise in this area can greatly benefit the licensee's response. This function is typically assigned to a pre-existing on-shift staff member as a collateral duty thus necessitating an on-shift staffing analysis under 10 CFR Part 50, Appendix E, Section IV.A.9 to ensure that this EP function can be performed when needed without any additional competing priorities.*

Current PTN Technical Specifications allow for the STA position to be assigned as a collateral duty provided applicable qualification conditions are met. This change is consistent with Technical Specifications. A dedicated STA ERO position is not necessary to adequately perform on-shift response activities.

This change is consistent with the staffing plan of NUREG-0654 R2.

3.2.7 **[Potential RIE 1-7]** No OSC RP Supervisor Position

The proposed emergency plan does not include an OSC RP Supervisor minimum staff ERO position to the Supervision of Repair Team Activities function. This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *An … RP Supervisor should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the craft [personnel] resources for the additional 30-minutes prior to the [supervisory] respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).*

The Lead OSC Supervisor is assigned the RP aspect of the Supervision of Repair Team Activities. To ensure that Lead OSC Supervisor position can perform the RP supervision sub-function, their ERO training / qualification program will include previous RP Supervisor experience or will receive training to supervise RP emergency response tasks. See Section O of the proposed emergency plan for the description of the qualification of the Lead OSC Supervisor.

OSC radiation protection personnel responding to the event will report to the Lead OSC Supervisor. With 3 RPTs and 2 RPQIs responding, an RPT can assist the Lead OSC Supervisor and FIN Supervisor with coordination of RP activities needed to dispatch OSC teams, thus not overburdening the Lead OSC Supervisor. If there is a particular question for RP supervision, the TSC RP Coordinator would also be available to answer or coordinate a response to questions.

3.2.8 **[Potential RIE 1-8]** Single Craft Supervisor Position

The proposed emergency plan does not assign OSC maintenance supervisors for each craft. Specifically, this change reduces the number of OSC craft supervisor minimum staff ERO positions used for the Supervision of Repair Team Activities function from three (3) to one (1). This change deviates from the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *An Electrical Supervisor, a Mechanical Supervisor, an I&C Supervisor … should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the craft [personnel] resources for the additional 30-minutes prior to the [supervisory] respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).*

The FIN Supervisor fills the supervisor role for mechanical, electrical and I&C craft disciplines. This is a deviation from NUREG-0654 R2 guidance which only discusses combining Electrical and I&C supervisory roles.

The normal station maintenance organization allows for the management of craft personnel under a single supervisor hierarchy. The position of FIN Supervisor is filled by

management and supervisory personnel from the Maintenance Department who are familiar with direction of all disciplines within the department. OSC performance under this organizational structure has been demonstrated in numerous evaluated exercises and remains consistent with the acceptable OSC staffing hierarchy of the current emergency plan.

3.2.9 **[Potential RIE 1-9]** Fewer Craft Responders

The proposed emergency plan reduces the number of Electricians from two (2) to (1) and the number of Mechanics from (2) to one (1) for the Repair Team Activities function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Repair Team Activities function from five (5) to three (3). This change deviates from the current emergency plan minimum staff ERO position requirements.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *A minimum number of maintenance personnel should respond to an event as part of the ERO, with more personnel available on an as-needed basis depending on the event. The augmentation (support) of the electrician and mechanic positions should occur within 60-minutes of an Alert ECL, (or greater), and is typically staffed in the OSC. The augmentation (support) of the I&C position should occur within 90-minutes of an Alert ECL, or greater, and is typically staffed in the OSC.*

Maintenance personnel are not assigned specific ERO response tasks in the proposed emergency plan. Maintenance personnel designated as minimum augmenting ERO are used as needed for skill of craft tasks.

Staffing for events which involve extensive damage have been analyzed in accordance with NEI 12-01 and are addressed under FLEX requirements.

This change is consistent with the staffing plan of NUREG-0654 R2.

3.2.10 **[Potential RIE 1-10]** No IT Technician ERO Positions

The proposed emergency plan does not assign IT Technicians in the TSC and EOF/JIC. Specifically, this change reduces the number of IT Technicians minimum staff ERO positions used for the Information Technology function from two (2) to zero (0). This change deviates from the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *Advances in technology have led to significant enhancements in many areas of emergency response, such as communications, monitoring, displays, digital procedures, etc. Licensees should consider the use of this technology whenever it enhances their ability to protect the health and safety of the public. However, if the implementation of the emergency plan is so reliant on this technology that without it, the emergency plan could not be implemented, then an IT Lead should augment (support) the response within 60-minutes of an Alert ECL, or greater, if the TSC/OSC has this technology; and within 60-minutes of an SAE ECL, or greater, if the EOF or JIC/JIS has this technology. If the licensee has capable backup plans for if/when this technology fails, then this function is not necessary. In other words, if the ERO is*

reliant upon technology such that its loss would prevent the ERO from functioning, then a support position should be part of the ERO to assist in recovery of this technology. If the loss of this technology would lead to the implementation of backup strategies, then this position would not need to be part of the ERO and can be called upon as-needed. Licensees should consider using the listing of critical digital assets, identified in accordance with 10 CFR 73.54, as the basis for determining if this position should be considered part of the EROs augmented response.

Per NUREG-0654 R2, minimum staff ERO IT positions are only required to be described in the emergency plan if critical digital assets (CDAs) are identified per 10 CFR 73.54, Protection of digital computer and communication systems and networks. The proposed emergency plan relies on DCS/ERDADS for monitoring plant parameters, which has been determined to be a CDA. The IT process for addressing issues with CDAs operates full time outside the emergency plan on a 24/7 basis. Additionally, NextEra maintains an IT Help Desk 24 hours per day, 7 days a week. Many computer issues are addressed remotely with an IT specialist through the Help Desk.

Each of the EP related digital assets were evaluated as part of implementation of the Cyber Security Rule, 10 CFR 73.54(b). Under NEI 13-10, "Cyber Security Control Assessments," EP Critical Digital Assets have been assessed and controls have been put in place to protect the assets against cyber-attack. In conjunction with these controls, alternate administrative, non-digital, or adequately independent means have been put in place for performing each EP function, should the digital component or program fail.

Performance of digital equipment used by EP has shown to be acceptable during drills and exercises, and through routine inventory and surveillance checks. Performance of digital assets is monitored through either the Corrective Action Program (CAP) or the drill and exercise critique process. Performance trends are monitored, corrective actions are issued, and compensatory measures are taken as necessary.

With the IT department process for 24/7 coverage and built-in redundancy for communication systems and digital EP assets, NextEra has identified that there is no need to maintain an IT Technicians as minimum staff ERO positions.

3.3 ERO Augmentation Analysis

The ERO Augmentation Analysis compares and evaluates the current emergency plan on-shift and minimum staff ERO positions against those in the proposed emergency plan and in NUREG-0654 R2 guidance. Augmentation deviations in the proposed emergency plan from the current emergency plan and NUREG-0654 R2 are categorized as potential RIEs and evaluated to determine whether the timeliness to perform the function is sustained without overburden of the on-shift staff.

Refer to Attachment 1, ERO Staffing Plan Comparison Table, for a side-by-side summary staffing and augmentation comparison between NUREG-0654 R2 Table B-1, the current emergency plan, and the proposed emergency plan.

NUREG-0654 R2 establishes 60 and 90-minute minimum staff ERO augmentation time requirements for the TSC and OSC positions at the Alert emergency classification level; and a 60-minute minimum staff ERO augmentation time requirement for the EOF at the Site Area Emergency classification level.

The current emergency plan follows a 30 / 60-minute augmentation scheme as approved by the NRC in 1981 with the following main elements:

- All ERO personnel are notified at the Unusual Event emergency classification level (response to facilities is elective for the Shift Manager), and called out to respond to their assigned facility at the Alert emergency classification level.
- The TSC and OSC are required to be activated at the Alert emergency classification level.
- The EOF is required to be activated at the Site Area Emergency classification level.
- The JIC is activated as soon as possible at an Alert or higher emergency classification level when determined appropriate with the offsite agencies, and whenever the EOF is activated.

The proposed emergency plan follows a 60 and 90-minute augmentation scheme with the following main elements:

- All ERO personnel are notified at the Unusual Event emergency classification level (response to facilities is elective for the Shift Manager), and called out to respond to their assigned facility at the Alert emergency classification level.
- The TSC, OSC, and EOF are activated at the Alert emergency classification level.
- NextEra implements JIS practices that are capable of performing the media information function at all emergency classification levels.
- The near-site JIC is activated when determined appropriate with the offsite agencies (at an Alert or higher emergency classification level).

The ERO Augmentation Analysis concludes that the differences in times between the proposed common emergency plan 60 and 90 minute response criteria and the NUREG-0654 R2 60 and 90 minute response criteria does not adversely delay turnover of responsibilities or negatively impact/overburden the ability of the on-shift personnel to perform operational actions or key functions. This alternate staffing approach continues to maintain initial facility accident response in all key functional areas at all times and provides timely augmentation of response capabilities.

3.3.1 **[Potential RIE 2-1]** Site Emergency Director at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time for the Site Emergency Director minimum staff ERO position that performs the Command and Control function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *This function is typically assigned to the Operations Shift Manager (OSM). The augmentation (relief) of this position is intended to relieve the OSM of EP functions so that the OSM can focus on the event response from an operations perspective. This should occur within 60-minutes of an Alert ECL declaration, or greater, and is typically a position staffed within the TSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Per the guidance in NUREG-0654, Table B-1, an augmented "Senior Manager" should fulfill the "Emergency Operations Facility Director" major task at 60 minutes. A licensee requesting a change in staff augmentation requirements that would have the lead manager unavailable to assume command and control within 60 minutes of the initial emergency declaration should show that the on-shift staff includes enough qualified supervision such that one supervisor will assume the emergency director role. The licensee should show that the on-shift supervisor performing the manager actions will not have any additional duties (e.g., each unit under the direction of a unit supervisor, a shift manager providing oversight of the plant response, and a designated emergency director responsible for emergency plan implementation).*

The Shift Manager is given overall command and control with regard to ERO response activities. The position is used to perform Emergency Classification Level (ECL) determinations and develop Protective Action Recommendations (PARs), and to direct or perform ORO notification.

Historically, actual events have resulted in single ECL declarations with no further escalation. Realistic event progression that challenges multiple fission product barriers is relatively slow as demonstrated by the events at TMI and Fukushima. In this case, immediate plant operations and ERO response actions occur with 60 minutes of actual events and the on-shift staff are not burdened (tested) with multiple classifications.

Planning for a wide range of events, including rapidly progressing severe accidents (RPSA) is also required. These "fast breaker" events rise to the SAE or GE classification level without progressing through the lower ECLs. In this case, immediate plant operations and ERO response actions occur with 60 minutes of the RPSA scenario and the on-shift staff are not burdened (tested) with multiple classifications.

Event scenarios that do required escalation of the ECL prior to ERO augmentation are included in drills and exercises for the on-shift ERO. Technology and process enhancements including communications (ERNIE), ERDS, EAL matrix, PAR flowchart, etc. have reduced the time and attention it takes to perform tasks along with enhancing the effectiveness and efficiency of task performance. In addition, NUREG-0654 R2 has added a Classification Advisor position to assist and work in coordination with the Shift Manager, which NextEra has included as a collateral duty in the on-shift complement.

All Initiating Conditions (ICs) need to be demonstrated within the 8-year cycle. All Unusual Event and Alert level ICs are preformed from the Control Room. Thus, the opportunities for the Shift Manager to demonstrate the ability to perform emergency and operations responsibilities are provided multiple times over the 8-year cycle.

The demonstration and evaluation of the Shift Manager to perform their emergency plan functions is continuously evaluated during emergency planning drills/exercises and operations training simulator sessions. Various scenarios are used to evaluate the Shift Manager's ability to perform the following emergency planning functions, technical specification responsibilities and operations oversight.

Operations training simulator sessions test and evaluate the Shift Manager's ability to effectively and efficiently perform all required functions / responsibilities until the event is stabilized (session is complete); this in some circumstances is greater than the 90 minutes ERO response time. Note – there is no minimum required length of time for the training sessions.

Licensed Operator Continuing (LOR) training periodically has scenarios that extend to 90 minutes without augmented ERO involvement. For example, a training scenario is performed on a periodic basis to ensure that a FLEX Beyond Design Basis External Event can be mitigated by the minimum on-shift staff. The FLEX scenario assumes that the ERO will not be on site to provide support for a minimum of 6 hours. While this is covered under 10 CFR 50.155 and not Appendix E, the example is given as a major event where augmented ERO response is not provided while the site compliment is under heavy demand for action to mitigate the event.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for at least 90 minutes. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Command and Control function out to 120 minutes.

The Site Emergency Director 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the Command and Control function.

3.3.2 **[Potential RIE 2-2]** Classification Advisor at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC Classification Advisor minimum staff ERO position that performs the Emergency Classifications function. This change deviates from the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC.*
>
> *Maintaining the ability to perform this function at all times ensures that ECL decisions, and as applicable, the PAR decisions, are timely and accurate as these decisions have a direct relationship to public health and safety from the*

consequences of a radiological event. This function shall work in coordination with the OSM, or Emergency Coordinator, depending on which position is in command and control, and as a result should be available on shift and in the TSC.

The on-shift Classification Advisor is given a limited role with regard to ERO response activities. The position is used to second check Emergency Classification Level (ECL) determinations and Protective Action Recommendations (PARs) developed by the Shift Manager, and to support ORO notification information accuracy. The on-shift Classification Advisor has received training to perform their assigned EP functions and assist the Shift Manager with emergency responsibilities.

Historically, actual events have resulted in single ECL declarations with no further escalation. Realistic event progression that challenges multiple fission product barriers is relatively slow as demonstrated by the events at TMI and Fukushima. In this case, immediate plant operations and ERO response actions occur with 60 minutes of actual events and the on-shift staff are not burdened (tested) with multiple classifications.

Planning for a wide range of events, including rapidly progressing severe accidents (RPSA) is also required. These “fast breaker” events rise to the SAE or GE classification level without progressing through the lower ECLs. In this case, immediate plant operations and ERO response actions occur with 60 minutes of the RPSA scenario and the on-shift staff are not burdened (tested) with multiple classifications.

Event scenarios that do required escalation of the ECL prior to ERO augmentation are included in drills and exercises for the on-shift ERO. Technology, process and procedure enhancements to classification, notification and PAR development (such as Emergency Response Notification for Incidents and Events (ERNIE), ERDS, EAL matrix, PAR flowcharts, etc.) have simplified response activities and enhanced the effectiveness and efficiency of task performance. The on-shift Classification Advisor position’s ability to perform second checks specifically benefits from these advancements such that continuation of their ERO related tasks from 60 to 90 minutes is not a burden.

All Initiating Conditions (ICs) need to be demonstrated within the 8-year cycle. All Unusual Event and Alert level ICs are preformed from the Control Room. Thus, the opportunities for the on-shift Classification Advisor to demonstrate the ability to perform emergency and operations responsibilities are provided multiple times over the 8-year cycle.

The demonstration and evaluation of the on-shift Classification Advisor to perform their emergency plan functions is continuously evaluated during emergency planning drills/exercises and operations training simulator sessions. Various scenarios are used to evaluate the on-shift Classification Advisor’s ability to perform the following emergency planning functions, technical specification responsibilities and operations oversight.

Operations training simulator sessions test and evaluate the on-shift Classification Advisor’s ability to effectively and efficiently perform all required functions / responsibilities until the event is stabilized (session is complete); this in some circumstances is greater than the 90 minutes ERO response time. Note – there is no minimum required length of time for the training sessions.

Licensed Operator Continuing (LOR) training periodically has scenarios that extend to 90 minutes without augmented ERO involvement. For example, a training scenario is performed on a periodic basis to ensure that a FLEX Beyond Design Basis External Event can be mitigated by the minimum on-shift staff. The FLEX scenario assumes that the ERO will not be on site to provide support for a minimum of 6 hours. While this is

covered under 10 CFR 50.155 and not Appendix E, the example is given as a major event where augmented ERO response is not provided while the site compliment is under heavy demand for action to mitigate the event.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for at least 90 minutes. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Emergency Classifications function out to 120 minutes.

Establishing the 90-minute augmentation requirement for the TSC Classification Advisor minimum staff ERO position does not impact the capability or timeliness to perform the Emergency Classifications function or overburden the on-shift position.

3.3.3 **[Potential RIE 2-3]** ORO Communicator at 90 Minutes

The proposed emergency plan adds 60 minutes (30 for NUREG-0654 guidance) to the augmentation response time to the TSC ORO Communicator minimum staff ERO position that performs the State/County notifications aspect of the Communications function. This change deviates from the current emergency plan 30-minute ERO response time requirements and NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this position should occur within 60-minutes of an Alert ECL, or greater, and is intended to relieve the on-shift staff of this EP function. This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *To adequately support the elimination or extension of the two 60-minute responders, the licensee should show that two on-shift positions are identified to fill the 60-minute responder's role to "Notify licensee, State, local and Federal personnel [and] maintain communication." The licensee should show that these positions are not assigned other tasks that may prevent the timely performance of their assigned notification or communication functions, as specified in the emergency plan. The licensee should discuss how communication technologies employed by the proposed on-shift staff will support timely, effective, and reliable notifications. Additionally, the communications technologies should be referenced in the emergency plan to ensure that future changes are reviewed using the RG 1.219 change process, as they were used as the basis for the proposed change.*

Technology advancements of Emergency Response Notification for Incidents and Events (ERNIE) allows a streamlined process for ERO notification and ORO notification. Specifically, the technology advancements have enhanced initial notification to the ORO by using an electronic system that contacts the ORO warning points and emergency management staff via email, text and verbal computer-generated voice communications,

thus eliminating the need for a communicator to perform the verbal portion of the initial notification.

ORO activation occurs from the site's warning points based upon the initial notification form information. The forms are negotiated and approved with OROs to provide information needed to make initial response decisions. As such, there should be minimal need for OROs to request additional information from the site Communicators. ERNIE provides the site with validation that the information has been received by the OROs.

If any the OROs need additional information prior to ERO activation (90 minutes), the NextEra control rooms are equipped with speaker and/or headset phones which aid the in the performance of the communication function. The technical advancement allows personnel to perform the communication task without negatively impacting the performance of other emergency plan or operations responsibilities.

NextEra has added a drill/ exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for 90 minutes as a verification that the shift can perform their function with no assistance. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the NRC notifications aspect of the Communications function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the State/County notifications aspect of the Communications function. The OROs concur with the NextEra Common Emergency Plan changes including the 90-minute ERO augmentation (refer to Enclosure 10).

3.3.4 **[Potential RIE 2-4]** ENS Communicator at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC ENS Communicator minimum staff ERO position that performs the NRC notifications aspect of the Communications function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this position should occur within 60-minutes of an Alert ECL, or greater, and is intended to relieve the on-shift staff of this EP function. This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *To adequately support the elimination or extension of the two 60-minute responders, the licensee should show that two on-shift positions are identified to fill the 60-minute responder's role to "Notify licensee, State, local and Federal personnel [and] maintain communication." The licensee should show that these positions are not assigned other tasks that may prevent the timely performance of their assigned notification or communication functions, as specified in the emergency plan. The licensee should discuss how communication technologies employed by the proposed*

on-shift staff will support timely, effective, and reliable notifications. Additionally, the communications technologies should be referenced in the emergency plan to ensure that future changes are reviewed using the RG 1.219 change process, as they were used as the basis for the proposed change.

Technology advancements using continuous live ERDS transmission and Emergency Response Notification for Incidents and Events (ERNIE) allows a streamlined process for NRC notification. Specifically, the technology advancements have enhanced the NRC Headquarters Operations Office (HOO) initial notification by using an electronic system that contacts the HOO.

The shift communicator is able to communicate immediately, not to exceed 1 hour, with the NRC HOO to provide real time information and an open line if desired. The NextEra control rooms are equipped with speaker and/or headset phones which aid the shift communicator in the performance of the communication function. The technical advancement allows personnel to perform the communication task without negatively impacting the performance of other emergency plan or operations responsibilities.

This technology allows for a single communicator to perform as the NRC communicator and have collateral duties throughout the additional 30 minutes until relieved by the TSC ENS Communicator.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for 90 minutes as a verification that the shift can perform their function with no assistance. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the NRC notifications aspect of the Communications function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the NRC notifications aspect of the Communications function.

3.3.5 **[Potential RIE 2-5]** TSC RP Coordinator at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC RP Coordinator minimum staff ERO position that performs the Supervision of Radiation Protection Staff and Site Radiation Protection function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

This function is important for effective emergency response to a radiological event because the management of RP resources, and the assistance this position provides the Emergency Coordinator, is crucial for response to radiological events. Radiological events can be very significant and constantly evolving, and require significant expertise in radiation and radiological consequences. The evaluation of radiological events, and the development of effective protective action recommendations, requires this expertise to support the Emergency Coordinator in making these decisions. This position is also responsible for the direction and

protection of FMTs. The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC.

The TSC Radiation Protection Coordinator relieves the Shift Manager of the Supervision of Radiation Protection Staff and Site Radiation Protection function.

On-shift radiation protection personnel respond to abnormal radiological conditions, including Area Radiation Monitor and Process Radiation Monitor alarms, in accordance with RP procedures and report their actions and information to the Shift Manager, with little or no required supervision. Other on-shift radiation protection personnel emergency functions/responsibilities are performed without the need for direct supervision of the Shift Manager.

Technology and process enhancements in radiation protection including dosimetry and personnel monitoring have reduced the on-shift RP task burden by allowing operations and other non-RP shift personnel to perform most activities without the need for dedicated RP coverage. Thus, the need for the Shift Manager to coordinate RP coverage activities is significantly reduced.

The 90-minute response for OSC maintenance and radiation protection personnel credits the enhancement of the NextEra FLEX equipment and strategies. By accounting for FLEX equipment and strategies that eliminate or prolong the onset of core damage and any radiological release of activity the RP challenges are simplified and the need for a 60 minute radiation protection personnel response, and thus a 60 minute Radiation Protection Supervision response is diminished. Coordination of RP supervision response time with full TSC and OSC augmentation provides for a less complicated transition of responsibilities.

NextEra has added a drill/ exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for 90 minutes as a verification that the shift can perform their function with no assistance. This includes the Shift Manager directing and supervising RP functions and activities.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Supervision of Radiation Protection Staff and Site Radiation Protection function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the Supervision of Radiation Protection Staff and Site Radiation Protection function.

3.3.6 **[Potential RIE 2-6]** Dose Assessors at 60 and 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Dose Assessor minimum staff ERO positions that perform the Dose Assessments / Projections function. This change deviates from the current emergency plan 30-minute ERO response time requirements.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC. For an SAE ECL, or greater, this. position should be staffed in the EOF as the EOF is primarily intended to coordinate

with offsite response officials when developing protective action strategies for the public.

Maintaining the ability to perform dose assessments/projections at all times ensures that the consequences of a radiological event, to the public, are effectively mitigated by providing timely dose related information to the Emergency Coordinator (TSC) or Emergency Director (EOF) depending on which position is in command and control. As a result, this position (function) is expected to be available on shift, in the TSC, and in the EOF depending on the ECL declared.

The Remote Dose Assessor will relieve the on-shift Dose Assessor within 60 minutes of event declaration of an Alert or higher emergency classification level. The EOF Dose Assessor is available to perform their dose assessment functions within 90 minutes of event declaration of an Alert or higher emergency classification level.

Additionally, personnel qualified as on-shift Dose Assessors are trained in dose assessment for all NextEra sites such that an unaffected site shift Dose Assessor could be called upon to support dose assessment activities at an affected unit prior to ERO activation.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Dose Assessments / Projections function out to 120 minutes.

The proposed emergency plan conforms to the NUREG-0654 R2 augmentation response time criteria for the Dose Assessments / Projections function.

3.3.7 **[Potential RIE 2-7]** Radiation Protection Personnel at 90 Minutes

The proposed emergency plan adds 60 minutes (30 for NUREG-0654 guidance) to the augmentation response time to the radiation protection personnel minimum staff ERO positions that perform the Radiation Protection function. This change deviates from the current emergency plan 30-minute ERO response time requirement and NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for augmenting radiation protection personnel states that:

While not all Alert ECLs (or lower) have radiological consequences, licensees should develop their ERO staffing plans for a worst-case scenario from a radiological risk perspective, i.e., an event which results in the immediate (within 60-minutes) loss of 2 or more fission product barriers leading to significant and unknown radiological conditions. The augmentation (support) of this position should occur in two stages: within 60 minutes of an Alert ECL or greater, 3 additional qualified RP staff should be available, and within 90 minutes of an Alert ECL, or greater, an additional 3 additional qualified RP staff should be available, and both are typically staffed in the OSC.

RIS 2016-10 considerations for extension of ERO augmentation times states that:

Radiation protection personnel perform multiple roles during normal and emergency plant operations. These roles include access control, personnel monitoring, and dosimetry, in addition to HP coverage for repair and corrective actions, search and rescue, first aid, and firefighting during emergency response operations. Per the guidance in Table B-1 of NUREG-0654, there should be two augmented responders at 60 minutes for the major task of "Radiation Protection." To adequately support an

extension in response timing of the two radiation protection 60-minute responders to 90 minutes, the licensee should show that the on-shift HP staffing includes as a minimum, four HP technicians in total for the site. The extra HP technicians are needed for in-plant protective actions for the other personnel added to the on-shift staffing to compensate for the extension in augmentation time, and to assess any off-site releases of radioactive materials. Additionally, the licensee request should demonstrate that on-shift HP technicians will be relieved of the need to perform access control, personnel monitoring, and dosimetry-related tasks, thereby freeing these personnel to cover vital response activities (e.g., HP coverage for repair and corrective actions, search and rescue, first aid, and firefighting). NRC staff will consider whether the basis for the justification includes the availability of installed area, process, airborne and effluent radiation monitors, automated systems and information technology solutions, and enhanced work processes. The licensee should include supporting tools and processes that will be considered such as portal monitors, self-alarming dosimeters, and automated access control systems for the RCA that maintain active radiation work permits that are readily available if an emergency is declared (e.g., the system verifies qualifications, dose margins, and access requirement).

Three (3) RP Technician and two (2) RP Qualified Individual 90-minute minimum staff ERO positions report to the Lead OSC Supervisor and provides radiation protection support.

Through equipment, process, and training enhancements the on-shift staff can initially respond to Design Basis and Beyond Design Basis (BDB) events without the support of an augmented ERO. As codified by 10 CFR 50.155, NextEra FLEX equipment provides the on-shift staff with additional resources when installed plant equipment is lost or damaged. Generally, FLEX provides portable backup equipment onsite that can be used to supplement or replace installed plant equipment in maintaining long-term core cooling, spent fuel cooling, and containment integrity. Movement of FLEX equipment, including installation into plant systems and its operations (electrical, fluid, etc.) is performed by on-shift personnel.

Due to the availability of FLEX equipment, NextEra stations have diverse protection against loss of ECCS capability and other systems, which provides a basis for determination that no immediate ECCS repair and corrective actions are likely necessary for on-shift personnel prior to augmentation of maintenance personnel. The FLEX/BDB process and equipment, and the operating emergency procedures (EOP, AOP, etc.) are designed to be implemented with the minimum shift staff. By accounting for FLEX equipment and strategies that eliminate or prolong the onset of core damage and any radiological release of activity the RP challenges are simplified and the need for a 60 minute radiation protection personnel response is diminished.

The NEI 12-01 based staffing analysis performed for using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Radiation Protection function out to 6 hours for design basis and other ER related events.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Radiation Protection function out to 120 minutes for design basis and other ER related events.

3.3.8 **[Potential RIE 2-8]** Both Offsite FMTs at 90 Minutes

The proposed emergency plan adds 60 minutes (30 for NUREG-0654 guidance) to the Field Monitoring Team minimum staff ERO positions that performs the offsite field monitoring aspect of the Field Monitoring Teams function. This change deviates from the current emergency plan 30-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

- *An offsite FMT should be staffed, consisting of a monitor and a driver. This offsite FMT is responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples as necessary (air, water, vegetation, etc.). This team should be staffed within 60-minutes of an Alert ECL, or greater, in order to be ready to respond to a radiological release, or to detect radiation in the field thus confirming and quantifying the release. This supports the applicable PAR decision-makers in developing effective PARs.*

  i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

  iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.

- *Another offsite FMT should be staffed, consisting of a monitor and a driver. This offsite FMT is also responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples (air, water, vegetation, etc.). This team should be staffed within 90-minutes of an Alert ECL, or greater, in order to be ready to respond to a radiological release, or to detect radiation in the field thus confirming and quantifying the release. This supports the applicable PAR decision-makers in developing effective PARs. An additional 30-minutes in response is acceptable in that this second FMT is a backup to the first FMT, and while both FMTs are expected to respond to an event to better coordinate radioactive plume tracking action(s), allowing for an additional 30-minutes provides licensees some flexibility in staffing this ERO function without compromising the reasonable assurance finding in accordance with 10 CFR 50.47(a).*

  i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

  iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.

RIS 2016-10 considerations for extension of ERO augmentation times states that:

Per the guidance of NUREG-0654, Table B-1, there should be four augmented responders at 60 minutes—two for off-site surveys, one for on-site surveys, and one for in-plant surveys. To adequately support an extension of these responders to 90 minutes, the licensee should show that the on-shift HP staffing includes a minimum of four HP technicians in total for the site. The licensee should demonstrate that two HP technicians, in excess of the number evaluated previously for extending the 30-minute responders, are available for in-plant protective actions for the other

maintenance personnel that need to be added to the on-shift staffing to compensate for the extension in augmentation time for the major task of "Repair and Corrective Actions," and to perform surveys to assess any off-site release of radioactive materials.

NextEra off-site Field Monitoring Team augmentation is 90 minutes for both teams versus one team at 60 minutes and one team at 90 minutes.

FLEX equipment and strategies eliminate or prolong the onset of core damage and any radiological release of activity, and thus simplify the RP challenges and diminish the need for a 60 minute Field Monitoring Team response.

The 60 minute response basis for the first off-site Field Monitoring Team is to be ready to respond to a radiological release, or to detect radiation in the field for any ECL at an Alert or above. NextEra provides dedicated vehicles and equipment to facilitate the rapid deployment of personnel upon their arrival.

- Vehicles are maintained and fueled such that the Field Monitoring Team Driver is only required to perform a quick walk-around safety check before operating.
- Equipment/supply kit inventories are administratively maintained so that Field Monitoring Team personnel are not required to verify contents or perform lengthy equipment checks.
- Vehicles and equipment are stored together in a location that facilitates rapid deployment outside the Protected Area.
- Initial Field Monitoring Team deployment strategy locates personnel in downwind areas near the site boundary prior to a release that promptly supports EAL identification and PAR determination.

This pre-staging and readiness of Field Monitoring Team resources significantly reduces the time it takes personnel to be ready to respond to and identify a radiological release, thus also facilitating a 90 versus 60 minute augmentation response time.

3.3.9 **[Potential RIE 2-9]** Reactor Engineer at 60 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Reactor Engineer minimum staff ERO position that performs the Engineering function. This change deviates from the current emergency plan 30-minute ERO response time requirement.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO guidance states that:

The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC ….

An engineer to provide expertise in electrical/instrumentation and control (I&C) systems and equipment supports the evaluation of these systems/equipment and supports the development of repair plans if necessary. The augmentation (support) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC….

An engineer to provide expertise in mechanical systems and equipment supports the evaluation of these systems/equipment and supports the development of repair plans

if necessary. The augmentation (support) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC….

The proposed emergency plan conforms to the NUREG-0654 R2 augmentation response time criteria for the Engineering function.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Engineering function out to 120 minutes.

3.3.10 **[Potential RIE 2-10]** OSC Supervisors at 90 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time for the Lead OSC Supervisor and FIN Supervisor minimum staff ERO position that performs the Supervision of Repair Team Activities function. This change deviates from the current emergency plan 60-minute ERO response time requirement for the OSC Manager and OSC Supervisor, and the NUREG-0654 R2 60-minute ERO response time guidance for the Lead OSC Supervisor.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

An Electrical Supervisor, a Mechanical Supervisor, an I&C Supervisor, and an RP Supervisor should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the maintenance resources for the additional 30-minutes prior to the specific craft (mechanical, electrical, or I&C) respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).

FIN Supervisor

Moving the FIN Supervisor from 60 minutes (current emergency plan) to 90 minutes (proposed emergency plan) conforms to NUREG-0654 R2.

Lead OSC Supervisor

Operations staff are currently trained with basic troubleshooting skills for support of all EOP and abnormal response procedure actions. Supervision of these actions are performed by the Shift Manager and Unit Supervisors regardless of augmented ERO staffing. There is no need for the ERO to relieve the shift of this responsibility.

The Flex/B.5.b process and equipment, and the operating emergency procedures (EOP, AOP, etc.), are designed to be implemented by the minimum on-shift staff. Through technological and process enhancements, the on-shift staff can cope with an event (Design Basis and Beyond Design Basis) initially without an ERO as analyzed in detail for other non-EP regulatory requirements. With FLEX/B.5.b processes and equipment codified by 10 CFR 50.155 into plant response procedures, on-shift personnel have the capability for mitigating core damage from design or beyond design basis events.

Based on this, OSC personnel are used primarily for repair activities, with operations personnel focus on mitigating activities per the EOPs and other event procedures.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Supervision of Repair Team Activities function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan for the Lead OSC Supervisor does not impact the capability or timeliness to perform the Supervision of Repair Team Activities function.

3.3.11 **[Potential RIE 2-11]** OSC Craft at 90 minutes

The proposed emergency plan adds 30/60 minutes to the augmentation response time of OSC craft minimum staff ERO positions that perform the Repair Team Activities function. This change deviates from the current emergency plan 30 and 60-minute ERO response time requirements and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *… a minimum number of maintenance personnel should respond to an event as part of the ERO, with more personnel available on an as-needed basis depending on the event. The augmentation (support) of the electrician and mechanic positions should occur within 60-minutes of an Alert ECL, (or greater), and is typically staffed in the OSC. The augmentation (support) of the I&C position should occur within 90-minutes of an Alert ECL, or greater, and is typically staffed in the OSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Table B-1 of NUREG-0654 calls for the addition of one "Mechanical Maintenance," one "Rad Waste Operator," and an added "Electrical Maintenance" person within 60 minutes. To adequately support an extension of the response time for these responders, the licensee should demonstrate that the responsibilities of these positions can be covered with on-shift staff or earlier responders.*

Operations Emergency Operating Procedures have been developed to provide direction for a wide range of events described in the FSAR that uses operators to place the plant in a safe and stable condition. Maintenance personnel are not called upon in the response stage of an event as repair activities are taken after immediate EOP response actions.

Through equipment, process, and training enhancements the on-shift staff can initially respond to Design Basis and Beyond Design Basis (BDB) events without the support of an augmented ERO. As codified by 10 CFR 50.155, NextEra FLEX equipment provides the on-shift staff with additional resources when installed plant equipment is lost or damaged. Generally, FLEX provides portable backup equipment onsite that can be used to supplement or replace installed plant equipment in maintaining long-term core cooling, spent fuel cooling, and containment integrity. Movement of FLEX equipment, including installation into plant systems and its operations (electrical, fluid, etc.) is performed by on-shift personnel.

Due to the availability of FLEX equipment, NextEra stations have diverse protection against loss of ECCS capability and other systems, which provides a basis for determination that no immediate ECCS repair and corrective actions are likely necessary for on-shift personnel prior to augmentation of maintenance personnel. The FLEX/BDB process and equipment, and the operating emergency procedures (EOP, AOP, etc.) are designed to be implemented with the minimum shift staff. By accounting for FLEX equipment and strategies that eliminate or prolong the need for equipment and systems repair the maintenance challenges are simplified and the need for a 60 minute craft personnel response is diminished.

The NEI 12-01 based staffing analysis performed for using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Repair Team Activities function out to 6 hours for design basis and other ER related events

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Repair Team Activities function out to 120 minutes for design basis and other ER related events.

3.3.12 **[Potential RIE 2-12]** Security Liaison at 90 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Security Liaison minimum staff ERO position that perform the Security function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The licensee's Security Force is controlled and maintained by the licensee's NRC-approved physical security plan and does not need to be reflected in the Emergency Plan. However, the establishment of a Security Liaison position in the TSC is advantageous to ensure effective coordination between the security force and the ERO, particularly for events where offsite resources are necessary as well as for security related events and site personnel accountability. The augmentation (support) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed by a Security Liaison in the TSC to coordinate security-related activities with that of the ERO.*

The site-specific Physical Security Plan (PSP) defines on-shift security staffing. This PSP staffing supports initial event response, either security or emergency plan related. The Security Shift Supervisor communicates directly with the Shift Manager informing them of security related actions and conditions. This communication does not change with the augmentation of the ERO.

Following the transfer of command and control, the Security Liaison position coordinates security and emergency related communications and response actions between the Site Emergency Director and the security force. The Security Liaison position provides communication and coordination resources that are not needed until the TSC and OSC are augmented at the 90 minute point in time.

3.4 ERO Task Analysis

No deviations were identified in the task analysis.

The ERO Task Analysis indicates, based on tasks assignments, that the capability to perform emergency plan functions will continue to be met without overburdening the ERO positions in the proposed emergency plan.

3.4.1 Major Process and Task Re-Assignment Changes

The major process and task re-assignments are associated with the following:

1) Activation of the TSC, OSC, EOF emergency response facilities occur at the Alert emergency classification level.
2) The remote Dose Assessor and three remote Engineering ERO positions requires a 60 minute response time. All other minimum staff ERO positions require a 90 minute response time.
3) The Command and Control function, along with all non-delegable responsibilities, are transferred from the Shift Manager to the Site Emergency Director and remain in the TSC throughout a declared emergency.
4) The Lead OSC Supervisor is also assigned the responsibilities of the OSC RP Supervisor.
5) The EOF provides dose assessment, offsite field monitoring and HPN communication, as well as material and logistics support to the Site Emergency Director for the overall site response.
6) The JIS function is provided by site and corporate response, with support from corporate communications personnel. The EOF and near site JIC remain located within the same near-site building.
7) IT support for emergency response will be provided by the normal NextEra IT 24-hour support process. This aligns with the practice currently used to support Critical Digital Assets during normal operations.

3.4.2 On-Shift ERO Positions

NUREG-0654 R2 revised the staffing plan to remove on-shift positions not directly associated with key function areas having emergency plan response task assignments.

On-shift ERO positions remaining in or added to the emergency plan are as follows:

- Shift Manager
- RPT/RPQI
- Security Shift Supervisor
- Shift Technical Advisor (as a collateral duty)
- Shift Classification Advisor (as a collateral duty)
- Shift Communicator (as a collateral duty)
- Shift Dose Assessor (as a collateral duty)

On-shift ERO positions removed the emergency plan are as follows:

- Unit Supervisor
- Reactor Operator

- Senior Nuclear Plant Operator
- Nuclear Plant Operator
- Assistant Nuclear Plant Operator
- Nuclear Turbine Operator
- Radiation/Chemistry Technician
- Fire Brigade Leader
- First Aid Team Leader

3.4.3 Minimum Augmenting ERO Positions

Minimum augmenting ERO positions remaining in or added to the emergency plan are as follows:

TSC
- Site Emergency Director (previously Emergency Coordinator)
- TSC Classification Advisor (previously non-minimum staff Technical Asst to the EC)
- TSC RP Coordinator (previously TSC RP Supervisor)
- ORO Communicator (previously State & County Communicator)
- ENS Communicator
- Reactor Engineer
- Electrical/I&C Engineer
- Mechanical Engineer
- Security Liaison (previously TSC Security Supervisor)

OSC
- Lead OSC Supervisor (previously OSC Manager)
- FIN Supervisor (previously OSC Supervisor)
- RPT/RPQI (previously RPT)
- Electrician
- I&C Technician
- Mechanic

EOF
- EOF Manager (previously Recovery Manager)
- EOF Dose Assessor (previously Dose Assessment Coordinator)
- Remote Dose Assessor (previously TSC Dose Assessment Technician)
- FMT Technician (previously OSC RPT)
- FMT Driver (previously OSC RPT)
- EOF RP Coordinator (previously non-minimum staff EOF RP Manager)

JIC
- Site JIS Manager (previously Emergency Information Manager)
- Site JIS Coordinator (previously Site JIC Manager)
- Remote JIS Manager (previously Corporate JIS Manager)

3.4.4 Non-Minimum Augmenting ERO Positions (Support Positions)

Non-minimum augmenting ERO positions that remain in the implementing procedures will be notified at an Alert emergency classification level, at the same time as the minimum augmenting ERO. However, non-minimum augmenting ERO positions are not required to be present to activate the facility and do not relieve the on-shift ERO of any EP responsibilities. Non-minimum augmenting ERO positions have no augmentation time requirement.

Non-minimum augmenting ERO positions are being removed from the emergency plan, but retained in the Emergency Plan Implementing Procedures (EPIPs). The tasks assigned to the non-minimum augmenting ERO positions in the current emergency plan were reviewed against current NRC guidance to ensure tasks for key functional areas are retained and performed by minimum augmenting ERO positions within the proposed emergency plan.

The non-minimum augmenting ERO will continue to be available and respond to declared emergencies. The non-minimum augmenting ERO will be notified at the same time as the minimum augmenting ERO to respond to their respective Emergency Response Facilities (ERFs) at an Alert or higher Emergency Classification Level (ECL). As currently in place, the non-minimum augmenting ERO is not required to activate a facility.

Non-minimum augmenting ERO positions remaining in the implementing procedures are as follows:

TSC
- TSC Coordinator (previously TSC Supervisor)
- TSC ERF Communicator (previously EOF Communicator)

OSC
- OSC ERF Communicator (previously OSC Communicator)

EOF
- Administrative Coordinator (Previously EOF Supervisor)
- State & County Liaisons (previously State & County EOC Technical Advisors)
- Resource Coordinator

JIC
- JIS Technical Liaison (previously JIC Technical Advisor)
- Media Coordinator (previously PIO/ECT Officer)

Additionally, NextEra station and corporate personnel can be called as "as needed" to support ERO response activities. These personnel will perform activities related to their normal jobs (such as engineering, procurement, maintenance planning, administration, etc.) and will be notified to support the ERO as warranted.

3.4.5 Eliminated Augmenting ERO Positions

ERO positions contained in the current emergency plan and implementing procedures that are not contained in the proposed emergency plan or implementing procedures are as follows:

TSC
- Emergency Technical Manager..... **Minimum Staff, E-Plan**
- Chemistry Supervisor..... **Minimum Staff, E-Plan**
- Maintenance Manager..... **Minimum Staff**, EPIP
- TSC Operations Manager ..... Non-minimum Staff, EPIP
- Licensed Operator Support ..... Non-minimum Staff, EPIP
- Plant Data Communicator ..... Non-minimum Staff, EPIP
- HPN Communicator ..... Non-minimum Staff, EPIP
- Site Corporate Communicator..... Non-minimum Staff, EPIP
- DCS/ERDADS Operator..... Non-minimum Staff, EPIP
- Engineering/Maintenance Liaison ..... Non-minimum Staff, EPIP

- Document Control Personnel ..... Non-minimum Staff, EPIP

OSC

- OSC RP Supervisor ..... **Non-Minimum Staff, E-Plan**
- Re-Entry Coordinator ..... Non-minimum Staff, EPIP
- Operations Supervisor..... Non-minimum Staff, EPIP
- Chemistry Supervisor ..... Non-minimum Staff, EPIP
- Mechanical Coordinator ..... Non-minimum Staff, EPIP
- Electrical/I&C Coordinator ..... Non-minimum Staff, EPIP
- Contract Medical Personnel ..... Non-minimum Staff, EPIP
- Dose Recorders ..... Non-minimum Staff, EPIP
- Materials Management Personnel..... Non-minimum Staff, EPIP
- OSC RP Communicator ..... Non-minimum Staff, EPIP
- OSC Status Board Keeper ..... Non-minimum Staff, EPIP
- OSC Document Control Personnel ..... Non-minimum Staff, EPIP
- OSC Security Officer ..... Non-minimum Staff, EPIP

EOF

- S/C Communicator ..... **Minimum Staff, E-Plan**
- Emergency Security Manager ..... **Minimum Staff, E-Plan**
- RM Operations Advisor ..... **Minimum Staff**, EPIP
- DCS/ERDADS Operator..... **Minimum Staff**, EPIP
- Technical Assistant to the RM..... Non-minimum Staff, EPIP
- ENS Communicator..... Non-minimum Staff, EPIP
- Field Monitoring Coordinator..... Non-minimum Staff, EPIP
- Field Monitoring Recorder..... Non-minimum Staff, EPIP
- HPN Communicator ..... Non-minimum Staff, EPIP
- TSC Communicator..... Non-minimum Staff, EPIP

All tasks previously assigned to eliminated ERO positions that involve response actions for key functions continue to be performed by the remaining ERO positions in the proposed emergency plan.

3.5 On-Shift Staffing Analysis (OSA)

Regulatory Issue Summary (RIS) 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation, (Reference 6.13), states that an on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 should not be used to provide the primary basis to support the Technical Evaluation of a License Amendment Request (LAR). The OSA, however, may be utilized as part of the overall evaluation of staffing changes. The RIS states:

> *…an evaluation performed using only the guidance of NEI 10-05 does not satisfy the requirement to identify and evaluate changes to ERO augmentation timing or ERO augmentation staffing that reduces the capability to perform an Emergency Planning function.*

In conjunction with this License Amendment Request, NextEra has performed and documented an OSA per 10 CFR 50, Appendix E, Section IV.A.9 following the guidance of NEI 10-05, Assessment of On-Shift Emergency Response Organization Staffing and Capabilities, (Reference 6.14).

The results of the OSA conclude there are no task overlap or overburden of the on-shift staff; however, NextEra understands that the OSA comprises a select set of identified scenarios and is not used as the sole basis for the conclusions in the technical evaluation supporting this amendment request.

3.6 Approved to Current E-Plan Comparison Analysis

This comparison analysis identifies the differences between the approved emergency plan and the current emergency plan. The approve emergency plan consists of the following:

- NRC letter, Review of Utility Emergency Plan Documentation, dated 09/03/1981, establishing Turkey Point Emergency Plan Revision 8 as the initial NRC approved version.
- NRC letter and safety evaluation, Turkey Point Nuclear Generating Plant, Unit Nos. 3 and 4 - Issuance of Amendment Nos. 294 and 287 Regarding Emergency Action Level Scheme Upgrade (EPID L-2019-LLA-0271) (L-2019-203), dated 01/27/2021.

The comparison was made using the current emergency plan (Revision 69).

The results of the comparison between the approved emergency plan and the current emergency plan revealed the following changes identified as potential RIEs.

3.6.1 **[Potential RIE 5-1]** Changes to Governmental Affairs Manager (GAM) and STA Augmenting ERO Positions

Approved Emergency Plan	**Current Emergency Plan**
Governmental Affairs Manager (GAM) - A designated Company officer or senior manager who has the responsibility for liaison between the Emergency Control Officer and political officials of the State and Federal Governments during an emergency.	N/A
Governmental Affairs Manager (GAM) The GAM will be a designated corporate officer or senior manager experienced in interfacing with political officials of the State and Federal governments. He acts as a liaison between the ECO and these political officials. Primary: Vice President, Governmental Affairs Alternate: Federal Regulatory Advisor (Other alternate telephone numbers are provided in the Offsite Emergency Roster).	N/A
Minimum Augmenting – TSC STA Expanded – GAM	Not required Not required

Disposition

Governmental Affairs Manager (GAM)

The GAM task, an expanded support staff augmenting ERO position, were incorporated into the Emergency Information Manager (EIM), a minimum staff augmenting ERO position, in 2019 (emergency plan R65) – AR 02335929. Performance monitoring by evaluation of formal objectives and demonstration criteria continues in the drill and exercise program.

With this change the emergency plan continued to meet all applicable regulations and site specific commitments, and no capability to perform a function was degraded or lost.

TSC Shift Technical Advisor (TSC STA)

The TSC STA, a minimum staff augmenting ERO position, was removed from the emergency

plan in 1982 (emergency plan R11).

This change updated the emergency plan staffing table to reflect NUREG-0654 R1 staffing and timing requirements for 30 and 60 minute responders vs. the previous 1-2 hour commitment.

The 10 CFR 50.54(q) change evaluation to remove the TSC STA augmenting ERO position concluded that it did not remove a regulatory requirement and was not a reduction in effectiveness of the emergency plan. However, change documentation that does not require prior NRC approval is not required to be maintained for longer than three years, and thus is no longer available for review.

The key tasks of the TSC STA position were to communicate with the control room, follow operator actions, analyze condition and brief facility staff. These tasks are also performed by other TSC positions. Performance monitoring by evaluation of formal objectives and demonstration criteria continues in the drill and exercise program.

With this change the emergency plan continued to meet all applicable regulations and site specific commitments, and no capability to perform a function was degraded or lost.

3.6.2 **[Potential RIE 5-2]** Changes to On-site, Off-site, and Protected Area Boundary Definition and Evacuation Protective Actions

Approved Emergency Plan	**Current Emergency Plan**
Off-site - All property outside the Owner Controlled Area. On-site - The Owner Controlled Area.	Off site - All property outside the Protected Area On site - The area within the Protected Area.
Protected Area - The area (within the Owner Controlled Area) occupied by the two fossil units, the two nuclear units and their associated equipment enclosed within the security perimeter fence.	Protected Area - The area (within the OWNER CONTROLLED AREA) occupied by the nuclear units and associated equipment and facilities enclosed within the security perimeter fence. The area within which accountability of personnel is maintained in an emergency.
N/A	Site - The Turkey Point Power Plant Protected Area.
Owner Controlled Area Evacuation (Includes Protected Area) Definition An Owner Controlled Area Evacuation is the orderly withdrawal of all personnel from the Owner Controlled Area, including the Protected Area, except personnel required to place Fossil Units 1 & 2 and Nuclear Units 3 & 4 in a safe condition and Emergency Team members who will report to the OSC for assignment. The Emergency Coordinator will sound the plant evacuation alarm and then provide further information by the public address system. Criteria The Owner Controlled Area will be evacuated in the event of a Site Area Emergency or General Emergency.	Evacuation is the primary protective measure anticipated for personnel within the Protected Area not filling Emergency Response Organization positions. Contractors not having an emergency response function and visitors are normally evacuated at the Alert or higher classification. Evacuation of all other non-essential personnel, including personnel not required for the shutdown of the fossil units, occurs at the Site Area Emergency and General Emergency. However, the Emergency Coordinator shall use good judgment prior to moving personnel from the Owner Controlled Area. Conditions such as security events, release status, release duration, plant conditions and meteorological conditions should be evaluated. Owner Controlled Areas outside the Protected Area are evacuated, if conditions warrant, of all non-FPL personnel at an Alert or higher emergency classification. Security is responsible for evacuation implementation per applicable EPIPs and SFIs while the

Approved Emergency Plan	Current Emergency Plan
	Emergency Coordinator is responsible for the decision to evacuate.
Personnel Accountability, Transportation, and Exit Routes There are several groups of individuals that may be present within the Owner Controlled Area during an emergency. The maximum population within the Owner Controlled Area is presented in Table 5-4. Upon declaration of an emergency evacuation, the Security Guard Force will assist in personnel accountability in accordance with Emergency Procedures. When an evacuation is declared, all non-essential personnel in the affected area will stop working leave the affected area and assemble by departments in the designated assembly area. Figure 5-1 shows the evacuation route and assembly area (for the site). The Emergency Coordinator will initiate a search for any personnel not accounted for. The picnic and beach areas and scout camps are primarily used during weekends and holidays when all other groups are operating with minimum staff. The security force on duty at any time is adequate to handle the evacuation of personnel in the Owner Controlled Area. The estimated reaction time (time measured from the time of the declaration of emergency until the initiation of evacuation – including "hosted" groups) should not exceed 30 minutes. At night or under adverse weather conditions, reaction time should be shortened since fewer persons are on site. Recreation areas, except for the scout camps and barge canal, would normally be void of personnel. Scouts would be in their immediate camp areas and barges may be in the process of unloading oil. Actual evacuation drills have shown that personnel evacuation can be accomplished within 30 minutes following declaration of an evacuation. The normal exit route used during an evacuation will be the same as that used for normal plant entrance. If the normal exit route is unusable, an alternate route has been established. Procedures used by the Security Guard Force define which evacuation route(s) will be used by the various groups in the Owner Controlled Area.	Accountability At the declaration of a Site Evacuation (usually Site Area Emergency or General Emergency), all non-essential personnel are evacuated. All individuals in the Protected Area are accounted for and names of personnel not accounted for are established within 30 minutes of the initiation of the Site Evacuation. Once established, accountability within the Protected Area is maintained throughout the event. Upon notification that personnel are missing, the Emergency Coordinator shall ensure that Search and Rescue Operations are initiated. Accountability is coordinated by the TSC Security Supervisor and the results are forwarded to the Emergency Coordinator.

Disposition

Successive changes to the boundary definitions occurred over time. The first change to the definitions of “on-site” and “off-site” replaced “Owner Controlled Area” (OCA) with “Site Protected Area” in 1984 (emergency plan R13). The definitions of “on-site” and “off-site” were further changed to remove “site” from “site protected area” in 1991 and 1993 (emergency plan R23 and R26).

The protected area boundary definition originally included the two fossil units, the two nuclear units, and their associated equipment enclosed within the security perimeter fence. This was changed to reflect only the two nuclear units in 1991 (emergency plan R22).

The change in the protected area boundary definition resulted in the addition of a definition of “site” being applied to the nuclear units protected area (previously, “Plant” was used as the term which described the nuclear units), in order to continue to facilitate the assembly, accountability and evacuation functions.

The evacuation of non-essential personnel outside the protected area, but within the OCA was revised to occur at the Alert emergency classification level, rather than at the Site Area Emergency classification level, although non-essential personnel may also be sent out of the protected area at this classification level. Security personnel continue to ensure non-essential personnel do not remain inside the OCA when an OCA evacuation is directed.

The required evacuation of non-essential personnel inside the protected area, including personnel not required for the shutdown of the fossil units, continues to occur at the Site Area Emergency classification level.

The assembly area location outside the OCA has not been changed.

The effect of this change impacted the accountability function. In the approved emergency plan, accountability was performed for all personnel within the OCA (with the exception of Air Force Personnel, who through MOU maintained accountability of their personnel when present within the OCA). The revision to the emergency plan limited accountability to individuals within the protected area.

The 10 CFR 50.54(q) change evaluation to the boundary definitions concluded that it did not remove a regulatory requirement and was not a reduction in effectiveness of the emergency plan. However, change documentation that does not require prior NRC approval is not required to be maintained for longer than three years, and thus is no longer available for review.

The accountability function continues to be initiated at the appropriate classification level, if not sooner, and the timeliness aspect remains 30 minutes as originally approved. Monitoring the location of personnel is limited to within the protected area.

With these changes the emergency plan continued to meet all applicable regulations and site specific commitments, and no capability to perform a function was degraded or lost.

3.6.3 **[Potential RIE 5-3]** Changes to REEF Medical Support for Overexposure Treatment

Approved Emergency Plan	**Current Emergency Plan**
REEF (Radiation Emergency Evaluation Facility) - A medical care organization which provides primary care staff and facilities at Mount Sinai Hospital in Miami Beach.	N/A
REEF Associates, Inc. located within the Mt. Sinai Hospital complex, provides immediate availability of a fully equipped primary medical facility with an adequate staff of physicians, nurses, and technical personnel skilled in the diagnosis and treatment of radiation injury and personal contamination. This support is provided in accordance with REEF's Radiation Emergency Plan (provided in Appendix E).	N/A

Approved Emergency Plan	Current Emergency Plan
REEF is discussed in detail in Section 2.5, Medical and Health Support. REEF Associates, Inc. (REEF), located within Mt. Sinai Hospital, provides for immediate availability of fully equipped primary medical facilities with an adequate staff of physicians, nurses, and technical personnel skilled in the diagnosis and treatment of radiation injury and personnel contamination, and fully equipped and staffed regional facilities to provide definitive medical care for serious cased of radiation exposure (Appendix H). REEF, at the request of Florida Power & Light Company, will work with representatives of FPL to evaluate the medical aspects of an incident involving the community, may assist in the investigation of causes of radiation injury and the means of preventing a recurrence thereof, and may assist in the investigations of actual or alleged radiation injury and will provide documentation and testimony as required, by FPL. REEF will provide for hospital treatment, medical examinations, and laboratory services for those employees and other persons designated by Florida Power & Light Company who allegedly have been involved in a radiation incident. When primary facilities are considered inadequate by REEF because of the nature or severity of the injury sustained, then the injured person may be referred to a regional facility for hospitalization. Medical records, including bio-assay records, will be maintained permanently by REEF and copies furnished to Florida Power & Light Company. Implementing Organization REEF Associates, Inc. a group of physicians, basic scientists and technologists at the Division of Nuclear Medicine, Mount Sinai Hospital, Miami Beach, has developed the Radiation Emergency Plan (Appendix H) and the Radiation Emergency Evaluation Facility (REEF) to carry out the terms of the REEF Associates, Inc, agreement with Florida Power & Light Company. REEF will: 1) Coordinate the efforts of the multiple medical disciplines within the Mount Sinai Hospital of Greater Miami which are committed to support the radiation emergency medical treatment effort of REEF. 2) Develop plans. procedures, and training programs for the reception, diagnosis, and treatment of personnel with injuries involving radiation exposure and/or	Sheridan Emergency Physician Services of South Dade Sheridan Emergency Physician Services of South Dade, located at Baptist Hospital of Miami, provides for the immediate availability of fully equipped medical facilities with a staff of physicians and nurses skilled in the treatment of personal injury accompanied by radioactive contamination. This facility is available on a 24-hour basis. The patient receiving area is equipped for patient decontamination and the performance of emergency medical procedures for life saving purposes. Additional emergency medical facilities in the hospital include the emergency room and an intensive care unit available for the treatment of decontaminated radiation accident casualties or persons who have received only internal radiation exposures. Sheridan Emergency Physician Services of South Dade, will provide for hospital treatment, medical examinations, and laboratory services for those employees and other persons designated by Florida Power & Light who have been involved in a radiation incident. Mercy Hospital Mercy Hospital of Miami, also provides for the immediate availability of medical facilities and trained hospital staff in the treatment of personal injury accompanied by radioactive contamination. Medical services are available on a 24-hour basis. The patient receiving area is equipped for patient decontamination and the performance of emergency medical procedures for life saving purposes. Additional emergency medical facilities in the hospital include the emergency room and an intensive care unit available for the treatment of decontaminated radiation accident casualties or persons who have received only internal radiation exposures. Mercy Hospital will provide for hospital treatment, medical examinations, and laboratory services for those employees and other persons designated by Florida Power & Light who have been involved in a radiation incident.

Approved Emergency Plan	Current Emergency Plan
radioactive contamination. 3) Designate the physical facilities and equipment to be used for initial emergency care and subsequent definitive care and treatment of personnel with radiation injuries. 4) Designate physicians, basic science personnel, and medical support personnel and alternates for special hospital and REEF emergency teams to handle radiation emergency patients. 5) Train the designated emergency team personnel and others involved in the care and treatment of radiation injuries. 6) Provide training for selected Florida Power & Light Company employees in the special aspects of first aid related to serious radiation exposure, and to injury accompanied by radiation exposure and/or radioactive contamination. including the evacuation of casualties to off-site medical facilities. 7) Ensure that key medical team personnel are familiar with the first aid and personnel decontamination capabilities at the Turkey Point Plant. 8) Plan and implement periodic emergency drills and exercises to ensure the prompt and effect emergency are, treatment, and evaluation of radiation injuries. Primary Facilities The Facilities of REEF are located in the Mount Sinai Hospital of greater Miami. The patient receiving area is an active nuclear medicine diagnostic and research area and is equipped for patient decontamination and the performance of emergency medical procedures for life saving purposes. Additional emergency medical facilities in the hospital include the emergency room and an Intensive Care Unit available for the treatment of decontaminated radiation accident casualties or persons who have received only external radiation exposures.	
Regional Facilities A letter of agreement between the Oak Ridge Associated Universities (ORAU) and REEF Associates, Inc. provides backup support for the definitive care and treatment of seriously irradiated persons. The ORAU Medical and Health Sciences Division operates the Radiation Emergency Assistance Center/Training Site (REAC/TS) in Oak Ridge, Tennessee, for the U. S. Department of	Backup Facilities When primary facilities are considered inappropriate because of the nature or severity of the injury sustained, then the injured person may be referred to a regional facility for hospitalization. Medical records, including bio-assay records, will be maintained permanently and copies furnished to Florida Power & Light. A letter of agreement between the Oak Ridge

Approved Emergency Plan	Current Emergency Plan
Energy. It studies radiation and radioactive materials in diagnosis, therapy, and research. Its specialized facilities are available for the care and treatment of possible radiation accident victims transferred from REEF.	Associated Universities (ORAU) and Florida Power & Light Company provides backup support for the definitive care and treatment of seriously irradiated persons. The ORAU Medical and Health Sciences Division operates the Radiation Emergency Assistance Center/Training Site (REAC/TS) in Oak Ridge, Tennessee, for the US Department of Energy. It studies radiation and radioactive materials in diagnosis, therapy, and research. Its specialized facilities are available for the care and treatment of possible radiation accident victims.
Communications When injured personnel are transported to REEF, the Control Room makes contact with REEF through a dedicated telephone number (FPL use only) at the Mount Sinai switchboard. Information required to be transmitted during the telephone call is described in the REEF agreement (Appendix H).	N/A

Disposition

The REEF was a collective of specialized doctors located at Mount Sinai Hospital, trained in the treatment of large radiation exposures and available as a resource to PTN at the time the original emergency plan was approved.

Subsequent to that, Mount Sinai Hospital replaced the REEF with radiation exposure treatment protocols consistent national standards and was removed from the emergency plan as an offsite support resource reference in 1985 (emergency plan R14).

Typically, hospitals now rely on the following when local oncology resources do not include personnel specialized in the treatment of severe acute radiation exposure:

- The U.S. Department of Health and Human Services (HHS), National Library of Medicine (NLM) Radiation Emergency Medical Management (REMM) website, includes an interactive tool for healthcare providers to assess the clinical severity of each sub syndrome, and offers suggested treatments as well as a Response Category (RC) pertaining to guidelines for ambulatory monitoring, routine hospital care on a medical/surgical floor or care in a hospital critical care unit.
- The U.S. Department of Energy (DOE) Oak Ridge Institute for Science and Education guidance for radiation incident management. The guidelines offer healthcare providers specific guidance on initial diagnosis (based on exposure history, symptoms, and clinical laboratory tests) and treatment of radiation exposures.

The emergency plan now relies upon the DOE Radiation Emergency Assistance Center/Training Site (REAC/TS) to provide emergency 24/7 response and subject matter expertise on the medical management of radiation incidents, and operates a cytogenetic biodosimetry laboratory used to help calculate the absorbed radiation dose in exposed individuals.

The 10 CFR 50.54(q) change evaluation to the offsite medical resources available for treatment of acute excessive radiation exposure concluded that it did not remove a regulatory requirement and was not a reduction in effectiveness of the emergency plan. However, change documentation that does not require prior NRC approval is not required to be maintained for longer than three years, and thus is no longer available for review.

The offsite medical resources available for treatment of acute excessive radiation exposure

Disposition

continues to be consistent with current national standards and nuclear power industry practices.

With these changes the emergency plan continued to meet all applicable regulations and site specific commitments, and no capability to perform a function was degraded or lost.

3.6.4 **[Potential RIE 5-4]** Changes to Homestead AFB Support

Approved Emergency Plan	**Current Emergency Plan**
Homestead Air Force Base, 31st Tactical Fighter Wing Upon request from Florida Power & Light Company, the 31st Tactical Fighter Wing can furnish the following services in accordance with an agreement between FPL and the Base Commander (Appendix G): 1) Helicopters and watercraft for evacuation of personnel from the site. 2) Helicopters and surface ambulances for evacuation of injured personnel to designated hospitals, and for transporting medical personnel to the Turkey Point Plant. 3) Firefighting equipment to assist the plant Fire Team. 4) Weather data in the event of a radiological release. 5) Disaster Control Group (including radiological monitors) to assist in control and containment. 4) Notifies the Homestead Airforce Base, 31st Tactical Wing via dedicated phone line.	N/A
Radiological Homestead Air Force Base will provide transportation, including helicopter support for transportation of injured personnel to the designated hospital (i.e. Baptist or REEF).	In case of a life-threatening situation, the Shift Manager will determine the mode of transportation. The US Coast Guard and Miami-Dade Fire Rescue can provide 24-hour helicopter transportation in a life-threatening situation to a designated hospital on an as available basis.
Assistance from the Homestead Air Force Base for on-site support activities can be requested by direct telephone line from the Emergency Coordinator or his designee to the Base Duty Officer.	N/A

Disposition

Much of Homestead Air Force Base was destroyed by Hurricane Andrew in 1992 and was converted to an Air Reserve Base several years thereafter, and thus the offsite support resources it had previously provided were re-established with other organizations in 1993 (emergency plan R26).

Offsite support services previously provided by HAFB are currently provided as follows:

- Helicopters and watercraft, if needed for evacuation of site personnel, are provided through coordination with the USCG.

Disposition

- Helicopters and surface ambulances for evacuation of injured personnel to designated hospitals, and for transporting medical personnel to the Turkey Point Plant are provided by local medical Life-Flight and ambulance services.
- Firefighting equipment is provided through agreement with local fire service agencies.
- Offsite weather service data is provided through the National Weather Service.
- Offsite services assistance with radiological monitoring is provided through INPO.

The 10 CFR 50.54(q) change evaluation to document the continuity of offsite services resources with the loss of the Homestead Air Force Base concluded that it did not remove a regulatory requirement and was not a reduction in effectiveness of the emergency plan. However, change documentation that does not require prior NRC approval is not required to be maintained for longer than three years, and thus is no longer available for review.

The offsite services resources for event response at PTN continue to be available with no loss of capability or timeliness.

With these changes the emergency plan continued to meet all applicable regulations and site specific commitments, and no capability to perform a function was degraded or lost.

3.6.5 **[Potential RIE 5-5]** Changes to On-site Backup Mobile Lab

Approved Emergency Plan	**Current Emergency Plan**
Florida Power & Light Company has primary and backup radiological laboratory facilities on-site. A hot lab backup will be provided by an FPL owned mobile van. Environmental sampling will be augmented by the state's Mobile Emergency Radiological Laboratory (MERL) within approximately six hours of notification. If required, the laboratory facilities at FPL's St. Lucie Plant can be used; appropriate arrangements will be made on an as needed basis.	Florida Power & Light Company has primary and backup radiological laboratory facilities available. Environmental sampling will be augmented by the State's Mobile Emergency Radiological Laboratory (MERL) within approximately 6 hours of notification. If required, the laboratory facilities at FPL's St. Lucie Plant can be used; appropriate arrangements will be made on an as needed basis.

Disposition

The availability of an onsite FPL owned hot lab mobile van used as a back-up to the primary onsite radiological laboratory was removed in 1984 (emergency plan R13).

The onsite FPL owned hot lab mobile van was a resource, available through final construction and the beginning of plant operations, used to augment the station’s fixed primary lab. The mobile lab was removed once the station was capable of performing all necessary routine radiological sample analyses functions. There was no intent to maintain the mobile lab for the life of the plant. Onsite sample analyses remain the primary capability, with additional back-up capability provided by PSL and the State mobile lab, which provides capability in excess of guidance. In addition, PTN has been given approval to remove the requirement to maintain the PASS, which significantly reduces the need for emergency response related sample analysis capability.

The 10 CFR 50.54(q) change evaluation that documented removal of the onsite FPL owned hot lab mobile van did not violate a regulatory requirement and was not a reduction in effectiveness of the emergency plan could not be located. However, change documentation that does not require prior NRC approval is not required to be maintained for longer than three years, and thus is no longer available for review.

The onsite radiological laboratory remains capable of fulfilling the current event response sample analysis requirements at PTN with no loss of capability or timeliness.

With these changes the emergency plan continued to meet all applicable regulations and site

Disposition
specific commitments, and no capability to perform a function was degraded or lost.

3.6.6 **[Potential RIE 5-6]** Removed 15 Minute Site Emergency Announcement

Approved Emergency Plan	**Current Emergency Plan**
During an emergency, the relocation of persons on-site may be required in order to prevent or minimize exposure to radioactive materials. Evacuation is the primary protective action anticipated for on-site personnel. An emergency evacuation is the orderly, rapid, and safe withdrawal of all personnel from an area affected by an emergency condition. The plant public address system will be used to announce evacuation orders. Announcement of an emergency situation to all onsite individuals can be accomplished in less than 15 minutes. Depending on the nature of the emergency and the extent of the are affected, onsite evacuation have been classified as either a Local Evacuation or an Owner Controlled Area Evacuation.	During an emergency, the relocation of persons may be required in order to prevent or minimize exposure to radioactive materials. An evacuation is the orderly, rapid, and safe withdrawal of all personnel from an area affected by an emergency condition.

Disposition
The statements in the approved emergency plan that the plant public address system used to announce evacuation orders to all onsite individuals can be accomplished in less than 15 minutes was removed in 1990 (emergency plan R20). Event announcements are made simultaneously to the ERO and other personnel present at the station. These announcements occur sequentially after event declaration, and include OCA evacuation instructions (not protected area) when at an Alert classification level, and protected area evacuation instructions when at a Site Area Emergency classification level. While the reference to “can be accomplished in less than 15 minutes was removed from the emergency plan, no changes were made to alter the sequence of protective action steps or to the equipment used involving evacuation instructions. At this time numerous post construction changes were being made to facilitate security and access boundaries for the nuclear units, which differed from the fossil units. The 10 CFR 50.54(q) change evaluation that documented removal of the statement that evacuation announcements to all onsite individuals could be made within 15 minutes did not violate a regulatory requirement and was not a reduction in effectiveness of the emergency plan could not be located. However, change documentation that does not require prior NRC approval is not required to be maintained for longer than three years, and thus is no longer available for review. The security and access related adjustments to the station’s assembly, accountability and evacuation processes are consistent with post 9/11 requirements with no loss of capability or timeliness. With these changes the emergency plan continued to meet all applicable regulations and site specific commitments, and no capability to perform a function was degraded or lost.

3.6.7 **[Potential RIE 5-7]** Changes to Area and Equipment Decontamination Capabilities

Approved Emergency Plan	**Current Emergency Plan**
Any item of equipment, once having been taken inside a controlled area. requires a	N/A

Approved Emergency Plan	Current Emergency Plan
survey for possible contamination prior to its removal from the controlled area. Equipment can only be released from a controlled area it the levels of contamination are within the limits of the clean area. Equipment regularly required within a controlled area will be maintained within the controlled area. Due to the rigid radiological controls, it is not considered likely that contaminated equipment will inadvertently be taken oft-site. Should contaminated equipment be discovered, it will be stored and either decontaminated or disposed of in accordance with plant procedures. Areas within the plant or items suspected of contamination will be checked before normal use is permitted. Laboratory analysis of swipes will be undertaken, and an area or item will be declared suitable for normal use it contamination levels are less than 1,000 dpm/100cm^2.	

Disposition

The description of decontamination capability was removed in 1984 (emergency plan R12).

RP procedures have governed decontamination practices since the original approved emergency plan. No loss or degradation of the function occurred. The two paragraphs are being restored in an update to the current version of the PTN emergency plan to ensure the commitment for decontamination as a response function remains documented appropriately.

3.7 Current to Proposed E-Plan Comparison Analysis

This comparison analysis identifies the differences between the current emergency plan (Revision 69) and the proposed NextEra Common Emergency Plan (CEP) and PTN Emergency Plan Site Annex.

Differences between the content of current emergency plan and the proposed emergency plan were evaluated to determine whether any potential reductions in effectiveness were introduced by changes made.

The results of the comparison between the current emergency plan and the proposed emergency plan revealed the following changes that could be considered reductions in effectiveness.

3.7.1 **[Potential RIE 6-1]** Reduced Hospital and Ambulance Drill Participation and Periodicity

Current Emergency Plan	**Common Emergency Plan & Site Annex**
[7.1.4.3 Medical Emergency Drill] A medical emergency drill involving a simulated contaminated individual, with provisions for participation by local support services (i.e., ambulance and off-site medical treatment facility), will be conducted at least once every calendar year. Participation by local support services (i.e., ambulance and off-site medical treatment facility), may be tested separately or as part of the annual medical drill.	[CEP – N.4.a] Each NextEra site will conduct an onsite simulated medical drill once per calendar year. The scope of the emergency medical drill will include a simulated on-site injured and contaminated individual and medical/ first aid treatment, including contamination control. Emergency Medical Drill offsite participation and periodicity for support Hospital and Ambulance services are performed in accordance with the 42 CFR 482.15 regulations and are not included in the scope of the station medical drills.

Disposition

The hospitals are accredited by The Joint Commission in compliance with 42 CFR 482.15, Condition of Participation: Emergency Preparedness. The regulations and accreditation require the hospitals to maintain an emergency plan and that the emergency preparedness program include, but not be limited to, the following elements (excerpts from the 42 CFR 482.15 regulation):

(a) Emergency plan. The hospital must develop and maintain an emergency preparedness plan that must be reviewed, and updated at least every 2 years. The plan must do the following:

(1) Be based on and include a documented, facility-based and community-based risk assessment, utilizing an all-hazards approach.

(2) Include strategies for addressing emergency events identified by the risk assessment.

(4) Include a process for cooperation and collaboration with local, tribal, regional, State, and Federal emergency preparedness officials' efforts to maintain an integrated response during a disaster or emergency situation.

(b) Policies and procedures. The hospital must develop and implement emergency preparedness policies and procedures, based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, and the communication plan at paragraph (c) of this section. The policies and procedures must be reviewed and updated at least every 2 years.

(d) Training and testing. The hospital must develop and maintain an emergency preparedness training and testing program that is based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, policies and procedures

Disposition

at paragraph (b) of this section, and the communication plan at paragraph (c) of this section. The training and testing program must be reviewed and updated at least every 2 years.

(1) Training program. The hospital must do all of the following:

(i) Initial training in emergency preparedness policies and procedures to all new and existing staff, individuals providing services under arrangement, and volunteers, consistent with their expected role.

(ii) Provide emergency preparedness training at least every 2 years.

(iii) Maintain documentation of the training.

(iv) Demonstrate staff knowledge of emergency procedures.

(v) If the emergency preparedness policies and procedures are significantly updated, the hospital must conduct training on the updated policies and procedures.

(2) Testing. The hospital must conduct exercises to test the emergency plan at least twice per year. The hospital must do all of the following:

(i) Participate in an annual full-scale exercise that is community-based; or

(A) When a community-based exercise is not accessible, conduct an annual individual, facility-based functional exercise; or.

(B) If the hospital experiences an actual natural or man-made emergency that requires activation of the emergency plan, the hospital is exempt from engaging in its next required full-scale community-based exercise or individual, facility-based functional exercise following the onset of the emergency event.

(ii) Conduct an additional annual exercise that may include, but is not limited to the following:

(A) A second full-scale exercise that is community-based or an individual, facility-based functional exercise; or

(B) A mock disaster drill; or

(C) A tabletop exercise or workshop that is led by a facilitator and includes a group discussion, using a narrated, clinically-relevant emergency scenario and a set of problem statements, directed messages, or prepared questions designed to challenge an emergency plan.

(iii) Analyze the hospital's response to and maintain documentation of all drills, tabletop exercises, and emergency events, and revise the hospital's emergency plan, as needed.

Therefore, the hospitals use an all-hazards approach to determine the community-risk and priorities of its emergency response preparation (training, drills, etc.) on the risk / priority. Maintaining the Contaminated Medical Emergency Drill annual frequency, places a false priority /risk and circumvent the 42 CFR 482.15 community all-hazards regulations for the hospitals.

Ambulance services are under different regulations (primarily state regulations) but serves the same demographic and has similar community-risk and priority profile. Per the 42 CFR 482.15 regulation, the hospital’s emergency plan includes cooperation and collaboration of local emergency preparedness officials and an annual full-scale community-based drill. CEP Section O.1.a, NextEra will continue to offer emergency response training annually to the ambulance service(s). Training includes basic radiation protection, the notification process for their organization, and their organization’s expected role.

This change removes the requirement for hospital and ambulance participation in the annual emergency medical drill. The proposed CEP revision retains all other previous Offsite Response Organization (ORO) arrangements including offered annually training, offered participation in drills and pre-arrangements documented in Letters of Agreement (LOAs).

NextEra stations will continue to meet the requirements of 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, Section IV.F.1. NextEra stations will continue to have arrangements with the OROs; annual training will be offered, and hospital participation in the emergency medical drill will be coordinated under 42 CFR 482.15 requirements. NextEra stations will participate in

Disposition

the hospital's community risk assessments to ensure the station's is properly risk evaluated and prioritized.

On-site emergency medical drill and training will be provided annually for the station's ERO. The training process/program will determine the need for additional on-site drills included in the training.

This drill participation arrangement was discussed with the OROs (hospitals and ambulance providers) and their concurrence is documented in Enclosure 10.

The 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations do not specify a frequency to perform the emergency medical drill. The annual frequency is specified in NUREG-0654 and provides the NRC approved guidance how to comply with the regulations. Licensees "may voluntarily use the guidance in the document to demonstrate compliance" with the NRC regulations or provide "methods or solutions that differ from those described." The alternate method of basing the drill frequency on the ORO community-risk assessment is appropriate and meets the intent of the planning standards.

The change to the emergency medical drill scope retains the annual requirement for the station while allowing the hospital and ambulance service the ability to participate under and within their regulatory requirements. This should provide a commitment which the NRC can evaluate as an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations.

3.7.2 **[Potential RIE 6-2]** Altered Annual Unannounced Communication Drills

Current Emergency Plan

7.1.4.6 Unannounced Drills]
At least one communications drill per year will be unannounced. This unannounced drill will include notification to primary off-site response agencies (i.e., DEM, Florida Health Bureau of Radiation Control, County Emergency Management agencies) and those FPL emergency response personnel required to be notified based upon the drill scenario. The unannounced communication drill may coincide with an exercise or an actual Emergency Plan Activation.
Since the exercise scenarios are held confidential; fire, medical, evacuation, communication, and accountability drills, conducted in conjunction with an annual exercise are unannounced (actual time and specific details of the simulated events are not released).

Common Emergency Plan & Site Annex

[CEP – F.3]
Communication systems testing is accomplished in accordance with Table F-1.

Table F-1: Communication System Testing Requirements

Communication System	Testing Requirement
ORO Notification System	Monthly [(a)]
NRC FTS (ENS) Network	Monthly [(b)]
ERDS	Verify Transmission Quarterly
ERO Notification System	Per Elements N.4.h and N.4.i
Field Monitoring Teams Communication	Annually [(a)]
Telephone System	Frequent Use [(c)]
Station Radio System	Frequent Use [(c)]
Station PA System	Frequent Use [(c)]
ANS	per site specific ANS Design Report

(a) Test credit may be given by successful use in a drill.

(b) NRC ENS in the Control Room is Frequent Use. TSC and EOF require monthly testing.

(c) Communication systems that are listed with a testing frequency of "Frequent Use" indicate that the associated equipment is normally used at a sufficient high regularity, such that separate additional testing is not needed.

[CEP – N.4.i]
The NextEra ERO notification is an all-call

Current Emergency Plan	Common Emergency Plan & Site Annex
	process. Each NextEra site will conduct an off-hours unannounced ERO call-in drill biennially to verify each minimum staffing ERO position meets the required Table B-1 response time. The scope of the off-hours unannounced ERO call-in drill will require collection of the ERO notification system report which documents response within the required time. Completion of an Element N.4.h off-hours unannounced ERO report-in drill satisfies the requirements of the off-hours unannounced ERO call-in drill in this element. The Off-Hours Call-In Drill requirement may be satisfied by an actual event provided the objectives are evaluated and documented in a critique report.

Disposition

1. Requirement for an annual unannounced communications drill with the ORO has been removed.

   ORO warning points are staffed 24/7 with communications tests required monthly. ERO performance of ORO notification are now monitored under the ROP inspection process by the DEP performance indicator. Credited DEP notification is demonstrated on average more than 50x per year. No regulation, guidance or inspection procedure call for an annual unannounced communications drill with the ORO.

   Restoring the scope and periodicity of communications drills and unannounced drills to consistency with the NUREG-0654 criteria does not impact the ability of the ERO or ORO to perform the notifications function, demonstrating full capability of the function.

2. Requirement for an annual unannounced communications drill with the ERO duty team has been changed to biennial.

   NUREG-0654 R2 calls for quarterly off-hours call-in drills, such that each ERO member's normally expected response time is assessed at least biennially, with some drills being unannounced. The NextEra ERO notification is an all-call process, which for call-in drills will collect response time estimates from the entire ERO. This process validates all ERO members' response time each time it is used. The CEP drill criteria requires that the biennial ERO call in drill to be unannounced. This change aligns the CEP drill requirement with the intent of NUREG-0654 R2 criteria and provides a shorter periodicity for the testing of the full ERO notification process (annual team testing results in full testing every four years vs. every two years under the new criteria).

   Adopting the NUREG-0654 R2 criteria for ERO call-in drills does not impact the ability of the ERO to perform the augmentation function.

3.7.3 **[Potential RIE 6-3]** Removed EP Initial Training of Non-ERO Personnel

Current Emergency Plan	Common Emergency Plan & Site Annex
[7.2.2 Training of Emergency Response Organization (ERO) Personnel] For employees not assigned specific responsibility under the Emergency Preparedness Program, initial orientation training shall provide at a minimum, information describing the action to be taken by an individual discovering an emergency condition,	N/A

Current Emergency Plan	Common Emergency Plan & Site Annex
the location of assembly areas, the identification of emergency alarms, and action to be taken on hearing those alarms.	

Disposition

R1 and R2 of NUREG-0654 do not contain criteria requiring a description of training for non-ERO/non-essential personnel within the emergency plan). No regulation, other guidance document or inspection procedure calls for a description of non-ERO general employee training to be contained in the emergency plan.

General industrial safety information, which includes awareness and expectations to normal, off-normal and emergency situations is provided to all personnel given unescorted access onto the site. General employee training for unescorted site access includes topics of safety conscious work environment (SCWE), stormwater pollution prevention (SWPP), spill prevention and control, hearing conservation, emergency plan, and fire extinguishers and is presented in the NANTel Generic Awareness and NextEra site specific site access training courses.

Site specific general awareness training scope (industrial and emergency condition related) is governed and controlled outside the emergency plan.

Emergency plan awareness content review in general employee training by personnel knowledgeable of the emergency plan is provided in document controls processes and procedures. These processes and procedures are also applicable to changes to made by other non-EP departments that could potentially impact the emergency plan.

3.7.4 **[Potential RIE 6-4]** Reduced ERO Roster Review Periodicity from Quarterly to Semiannually

Current Emergency Plan	Common Emergency Plan & Site Annex
[7.3.2 Review of the Emergency Plan and Emergency Plan Implementing Procedures] The Emergency Plan and Emergency Plan Implementing Procedures will be under continuing review by the site emergency planning group. A comprehensive review of the Emergency Plan will be conducted annually. The Emergency Plan Implementing Procedures are reviewed during drills, exercises, and actual emergencies and revised as necessary to correct identified deficiencies. The Emergency Plan Implementing Procedures will undergo a thorough formal review at least once every two years and be revised as necessary. Notification lists and rosters will be updated at least quarterly. If changes affecting emergency response are identified, these changes will be made as needed. The revised Emergency Plan will be distributed with the latest revision number indicated on each page. Revision bars along the right margin will be used to indicate where changes have been made. If during these annual reviews no changes are needed, this will be documented. Changes to the Emergency Plan will be submitted, in writing or with pages marked for revision, to the site Emergency Preparedness Manager, or designee, in Emergency	[CEP – P.4] The formal emergency plan (as defined in the introduction section) and the emergency plan implementing procedures (as defined in Section P.7) will be reviewed on an annual basis and updated if necessary. Any changes to regulations, issues identified by drills and exercises, assessments and audits, or other updates will be evaluated and incorporated into the emergency plan if warranted. Letters of Agreement will be reviewed and verified on an annual basis, and updated if warranted. Changes will be processed in accordance with 10 CFR 50.54(q) requirements and NextEra document control/records management procedures. [CEP – P.5] Revised copies of the emergency plan are posted and distributed in accordance with NextEra records management system procedures. Changes to the emergency plan are submitted to the NRC in accordance with 10 CFR 50.4. [CEP – P.3] The site Regulatory Affairs Managers are

Current Emergency Plan	Common Emergency Plan & Site Annex
Preparedness. All proposed changes to the Emergency Plan shall be reviewed by the Onsite Review Group (ORG) and, prior to implementation, approved by the Site Vice President - Turkey Point Plant, the senior executive responsible for the safe operation of the plant. Revisions to the Emergency Plan will be sent to the Corporate Functional Area Manager/Peer Team Lead (CFAM/PTL). Changes to the EPIPs are performed in accordance with plant procedures. EPIPs are approved by the site Emergency Preparedness Manager unless changes are identified for evaluation by the Onsite Review Group (ORG) with approval recommended to the Site Vice President. Document holders will receive revisions to the Emergency Plan as they are issued. The site Emergency Preparedness Manager is responsible for coordinating the periodic reviews of the Emergency Plan. The site Emergency Preparedness Manager will ensure that elements of the emergency organization (FPL, State, local, Federal) are informed of changes to the Emergency Plan. The site Emergency Preparedness Manager is responsible for maintaining emergency preparedness. He/she maintains a roster of the Emergency Response Organization participants and their alternates. This roster is reviewed and confirmed periodically, typically once each calendar quarter. Each participant is responsible for advising the site Emergency Preparedness Manager when his/her duties are changed such that he/she can no longer participate. In the event of transfer or termination, the site Emergency Preparedness Manager should be notified by the employee's department head, and a replacement named and trained. Responsibility for day-to-day emergency planning coordination lies with the site Emergency Preparedness Manager.	responsible for the development, maintenance, review, and updating of the emergency plan, as well as the coordination of the plan with other response organizations. [CEP – P.10] The NextEra emergency communications directory contains select contact numbers for ORO and support organizations identified in the emergency plan and implementing procedures. The ERO call-out system contains comprehensive ERO contact information. NextEra ERO contact information is verified semi-annually and updated as needed. Facility and support contact information in the emergency communications directory is verified annually and updated as needed.

Disposition

Due to the local relationships and the advancement of technology, the quarterly emergency telephone directory review is being changed to a semi-annual review. Historically, little change between quarters has occurred such that changing to a semi-annually review would have little impact on accuracy.

With cellular phones being the primary notification tool for ERO personnel, there is not nearly as many changes of phone numbers. In the past, if an individual moved their residence, their phone number likely did not travel with them as the numbers were tied to geographical regions within the city or town they were moving (land lines). With cell phones and changes to long distance billing, many people keep their same cell phone number as they move, whether across town or across country.

Disposition

Most businesses or other support contacts that are listed in emergency telephone directory are established entities that do not change their business lines often enough to warrant a check every quarter. In addition, the internet is now the primary location to obtain business numbers, with these numbers readily available fewer numbers are required to be maintained in EP phone lists.

3.7.5 **[Potential RIE 6-5]** Reduced Emergency Equipment and Kit Inventories Periodicity from Quarterly to Semiannually

Current Emergency Plan	**Common Emergency Plan & Site Annex**
[7.4 Emergency Equipment/Maintenance] An inventory, an operational check, and an inspection of all emergency equipment/ instrumentation that is maintained in the Control Room, TSC, OSC, EOF and the field monitoring equipment located in the Florida City Substation is performed at least once each calendar quarter and following each use.	[CEP – H.11] NextEra emergency equipment and kits are inventoried to verify adequate supplies and materials, and to inspect condition semi-annually and following each use. Emergency use equipment and instruments are operationally checked semi-annually during the inventory, and prior to use if needed as specified in procedures. Sufficient reserves of instruments and equipment are maintained to replace those removed from service for calibration or repair.

Disposition

NUREG-0654 R2 element H.11 calls for a description of the provisions made for the testing and maintenance of emergency use equipment and supplies. Previous versions (NUREG-0654 R1 and draft R2) specified a quarterly periodicity. The quarterly periodicity was intentionally removed from the final approved version of NUREG-0654 R2 specifically to allow EP programs greater latitude in establishing inventory periodicities for infrequent use items.

Requirements to calibrate emergency equipment and instruments are specified in site procedures [CEP – H.11.b] and continue to be performed per national standards or the manufacturer's instructions.

Requirements to operationally check emergency equipment and instruments prior to use are procedurally required as applicable.

Historic records provide evidence that emergency use equipment and supplies inventories identify few, if any, issues such that an increased periodicity would not have an adverse effect on availability.

Changing the inventory periodicity from quarterly to semi-annual does not degrade the capability of the equipment and supplies to perform their function.

3.8 Proposed E-Plan to NUREG-0654 R2 Criteria Comparison Analysis

Each element of NUREG-0654 R2, is clearly stated in the proposed NextEra Common Emergency Plan and PTN Emergency Plan Annex. The proposed plan/annex deviates from the following NUREG-0654 R2 elements:

3.8.1 **[Potential RIE 7-1]** Added Allowance for Remote Response of Engineering and Dose Assessment Function

NextEra Common Emergency Plan	**NUREG-0654 R2**
B.1.b The remote emergency response organization (ERO) positions are defined. Resources necessary to perform the functions and tasks assigned to the remote response positions, as well as a backup capability, are described.	N/A
The NextEra ERO includes remote response positions. Remote response positions are not required to physically manipulate plant equipment or take other physical actions at the site. Remote response positions are provided the resources to collaborate with ERO personnel in their assigned emergency facility. These resources provide; • the ability to communication audio/visually between emergency facility and the remote responder. • the ability to access procedures, information and data. • the ability to share screens/documents. ERO members responding remotely to an emergency are capable of performing all functions and tasks assigned to their position, including support provided to other ERO members, as described in the emergency plan and implementing procedures. These positions support the on-shift staff prior to activation of the TSC and EOF. 1. Remote Responders Assigned to the TSC (refer to Section B.1.a.2) The Reactor Engineer, Electrical/I&C Engineer, and Mechanical Engineer ERO minimum staff positions are remote responders assigned to the TSC. NextEra provides a corporate facility that provides the equivalent resource capability as a backup for the remote ERO engineering positions. 2. Remote Responders Assigned to the EOF (refer to Section B.1.a.4) The Remote Dose Assessor ERO minimum staff position is assigned to the EOF. NextEra provides a corporate facility that provides the equivalent resource capability as a backup for the Remote Dose Assessor position. Additionally, the Shift Dose Assessor from another NextEra site are capable of supporting the affected site as a backup to the Remote Dose Assessor position.	

Disposition

Note – JIS by definition is a remote response process acknowledged by the NRC. It is not included in this disposition of NextEra remote ERO responders.

The Common Emergency Plan includes the following remote response ERO positions:

- Reactor Engineer
- Mechanical Engineer
- Electrical/I&C Engineer
- Remote Dose Assessor

Disposition

Title 10 of the Code of Federal Regulations (10 CFR) 50.47 (b)(2) requires that an onsite emergency plan meet the following standard:

> "On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified."

Providing the ability for specific augmenting ERO positions to participate remotely can enhance overall response efficiency through:

- Safer and faster response by ERO members since travel to an Emergency Response Facility (ERF) during various times, weather conditions, etc. is not necessary.
- Expanding the pool of potential ERO members with individuals possessing desirable expertise at the station and throughout the NextEra fleet.
- Providing greater ERO response since multiple ERO members in a position can be called upon to provide support.

The following key considerations were evaluated when determining the remote ERO response positions and capability:

- Identification of ERO positions with assigned functions and tasks that can be successfully performed in a remote response environment. The position has capability of completing all functions and tasks assigned to the position, including support provided to other ERO members, as described in the emergency plan and implementing procedures.
- Maintaining compliance with regulatory requirements applicable to the ERO.
- Evaluating changes to the approved and current site Emergency Plans and to the guidance in NUREG-0654 R2.
- The impact that a remote response could have on the position's ability to effectively function within the reporting facility or team (e.g., a dose assessment team).
- The ERO response actions in various classified emergency events (example; Hostile Action event or severe weather).
- Overall enhancement and improvements to the ERO response and emergency plan.

The remote ERO positions are not required to respond to a physical location within the activation time, but if desired or necessary there are physical response locations available such as at the station, corporate facility, or NextEra administrative offices.

Remote ERO positions can function from various locations based upon meeting a prompt response time and providing a depth of available communications and information resources. If a remote ERO member cannot perform the function due to personal or technology issue, standard / current processes would be utilized to replace the ERO member as soon as possible or the remote ERO member can relocate to resolve any technical issues.

Remote ERO personnel are capable of communicating with response and support personnel in the applicable ERF, or other locations, through pre-established communication channels. The remote ERO personnel will have various communication mediums (phones, standard conference bridges, internet, video conferencing software, and/or any additional technology advancements) available to them to effectively interface and communicate. The communication medium allows the remote ERO member to:

- Report virtually to an ERF leadership position
- Obtain directions based on the priorities of the event
- Obtain information necessary to perform assigned functions and tasks
- Provide necessary information to others

The pre-established communication channels possess the following features:

- Audio/visual communication between users
- Ability to share screens/documents
- Ability to grant access to other ERO members and ORO agencies, if desired
- Transfer capacity to handle any reasonably expected data and communication needs

Disposition

- System being highly reliable
- Ability of software vendor or NextEra Information Technology (IT) department to push out software updates and notifications of system outages

NextEra has a robust plant process computer system that is used to perform monitoring of each station as a matter of core business. This computer system is available to NextEra staff 24/7 locally and remotely to review plant performance from any location. If detailed in-field information is needed, the information exchange will rely on currently established practices of craft workers and operations staff providing photos of what is seen in the field. This will allow for solid analysis and judgement to be used in response recommendations. Cell phone technology advancements have allowed communications from the field to be vocal and visual (pictures and video); this common practice is used daily to communicate to the Control Room and/or Engineering staff. As necessary, this common practice can be used for any ERO position which could benefit from pictures/video to and from the field, example applications:

- Pictures of a valve can be sent to the Engineer from an in-field Operator.
- Maps can be sent to the FMTs from the Remote Dose Assessor.

The reliability of the computer data systems provided at the corporate and station locations utilized for remote ERO response is similar to the stations' Emergency Response Facilities. The reliability of non- NextEra remote locations (home, etc.) is dependent upon local internet service, but during the Covid-19 crises NextEra staff were able to work remotely effectively and efficiently. It has become a common practice to communicate, conduct multi-person meetings, share documents while working remotely. Personnel utilize the local internet service and cell phone hot spots to connect to the internet. If all else fails, personnel would respond to the NextEra corporate or station location/facility to perform the function remotely. In essence, performing work from remote locations has become a common practice and used daily by the staff.

The remote ERO positions are designated and assigned based on the established ERO selection and qualification process of NextEra. The process contains prerequisites and training to ensure competent personnel are responding to the emergency. The Systematic Approach to Training (SAT) process will be used to determine the initial and continuing training requirements. The training analysis will not be limited or focused on the remote ERO responders but also address the ERO members interfacing with the remote responders.

NRC Inspection Procedures (IP) do not currently identify specific remote ERO response performance evaluation criteria. Thus, performance evaluation would be based upon the Risk-Significant Areas (IP 71114 Section 03.04) and Additional Areas for Inspection (IP 71114 Section 03.06) similar to what is done for Field Monitoring Team and JIS response activities, which are performed outside of the ERFs.

To support the evaluation of the emergency plan and procedures, NextEra is required to conduct drills, exercises, tabletops, etc. to validate and demonstrate that the ERO, including the remote ERO, can responded successfully. Providing new (first-time) enhanced processes and abilities to protect the public should not be limited due to any existing abilities or inabilities to evaluate the enhancements. The NextEra drill and exercise program will be modified, as necessary, to incorporate the demonstration and evaluation of the remote ERO capability. Evaluations will focus upon the remote ERO task performance results. As necessary, drill/exercise evaluator and controllers will monitor the communication channels; similar to evaluations and controls of current remote drill/exercise activities (such as JIS and field monitoring activities). Critiques conducted after these drills and exercises should identify any issues encountered with the remote response; weaknesses identified from the critique will be entered into the appropriate site corrective action process.

During exercises, acceptable performance determination of remote ERO positions is based upon task performance results and monitoring communication channels, as necessary. As stated above, this is similar to evaluating current remote ERO activities. The following areas are examples which could be applicable based upon the remote ERO's responsibilities and task performance results:

- Risk-Significant Areas

Disposition

- Classification of events
- Development of Protective Action Recommendations (PARs)
- Assessment of offsite consequences

- Additional Areas for Inspection
  - Readiness and adequacy of EP equipment
  - Timely activation of facility
  - Command and control
  - Ability to diagnose plant accident conditions
  - Ability to formulate mitigating actions
  - Adequacy of communications
  - Accuracy and completeness of licensee-approved press releases

Administrative controls will ensure that remote ERO responders have access to any required data and any equipment necessary to perform their emergency response duties. Administrative controls will also require periodic tests/maintenance to verify the functionality of the equipment.

Individuals filling remote response positions will adhere to the Fitness-for-Duty (FFD) requirements in 10 CFR 26 and station procedures. Current NextEra procedures and policies require ERO responders to certify they are fit-for-duty prior to assuming their emergency response duties. These same procedures and policies are applicable for the remote ERO personnel.

3.8.2 **[Potential RIE 7-2]** Altered of Minimum Augmenting ERO Positions and Response Times

NextEra Common Emergency Plan	**NUREG-0654 R2**
Refer to Element B.3 and Table B-1: On-Shift and Augmenting ERO Staffing Plan	Refer to Element B.3 and Table B-1: On-Shift and Augmenting ERO Staffing Plan

Disposition

See Sections 3.2 and 3.3 Potential RIE deviation dispositions for position specific ERO position and augmentation time deviation dispositions.

3.8.3 **[Potential RIE 7-3]** EOF not Primary Base of Station Emergency Operations

NextEra Common Emergency Plan	**NUREG-0654 R2**
The Emergency Operations Facility (EOF) provides a dedicated location for support of the site event response activities. The EOF is sized to accommodate ERO responders and NRC, FEMA, and state representatives. The EOF is activated when minimum staffing requirements are met, key systems and equipment are verified operational, and the ERO personnel are prepared to perform their functions. When activated, the EOF's primary functions include: • Coordinate emergency response activities with federal, state, and local authorities • Coordinate support activities performed by personnel brought in to assist NextEra personnel • Perform offsite dose assessment and field monitoring activities.	H.3 An EOF is established, using current Federal guidance, as the primary base of emergency operations for the licensee during a radiological incident. The EOF facilitates the management and coordination of the overall emergency response, including the sharing of information with Federal, state, local, and tribal government authorities.

NextEra Common Emergency Plan	NUREG-0654 R2
• Development of dose based offsite protective actions recommendations. • Coordination of emergency response activities with federal, state, and local authorities. • Coordination of radiological and environmental assessment activities with offsite agencies. • Communicate with the NRC HPN line. • Coordinate corporate support. • Support site acquisition of external assistance (technical, craft, admin, etc.). • Support site acquisition of equipment, supply, and logistic resources. Because the EOF is located outside the plume exposure EPZ for all NextEra sites, specialized ventilation systems and radiological monitoring are not required. The EOF ventilation system is consistent in design with standard building codes. Each EOF provides communications to the Control Room, TSC, field monitoring teams, NRC, and OROs. The EOF has the capability for the acquisition, display, and evaluation of unit, radiological and meteorological conditions necessary to perform accident assessment and determine protective measures. The EOFs have access to drawings and other records, including general arrangement diagrams, piping and instrumentation diagrams (P&IDs), electrical schematics and plant procedures as either electronic or paper documents. The EOF has the capability to support the remote response of ERO positions. Site specific details of the EOF are described in the site annexes.	

Disposition

NextEra will transfer and retains command-and-control and non-delegable tasks in the TSC, and therefore the TSC is the primary base of emergency operations for the licensee. By maintaining command-and-control in the TSC, multiple turnovers of responsibilities are not required. The change to maintain the TSC as the primary base of emergency operations is an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations

3.8.4 **[Potential RIE 7-4]** Reference and Scope Change for MBDBE Exercises

NextEra Common Emergency Plan	**NUREG-0654 R2**
N.3.e 10 CFR 50.155(b)(2) Strategies Demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.155(b)(2). Each NextEra site will conduct at least one scenario requiring demonstration of the ability to transition between procedures and select the strategy(ies) for preventing or mitigating fuel damage and limiting radiological releases, within an eight-year cycle. The MBDBE exercise scenario will be based in one of the site specific strategies used to mitigate spent fuel pool damage scenarios or one of the 7 strategies for PWRs used to mitigate reactor accidents and maintain containment. The MBDBE exercise may be conducted separately from the main exercise timeline and sequence of events. This includes the (simulated) deployment and use of equipment associated with these strategies. At a minimum, TSC and OSC ERO staff will participate in this portion of the exercise. Participation of Control Room, EOF, JIC ERO, and offsite officials may be simulated. Methods to accomplish this demonstration are dependent upon the nature of the postulated initiating event, the plant response/accident sequence, and the ability of responders to select and implement mitigation/management strategies. These methods involve conducting any of the following: • A demonstration of the transition from a controlling AOP or EOP into the Extensive Damage Mitigation Guidelines (EDMGs), FLEX support guidelines (FSGs), or Severe Accident Management Guidelines (SAMGs). • A demonstration of the use of EDMGs. • A demonstration of the use of FSGs. • A demonstration of the use of SAMGs.	N.3.e 10 CFR 50 54(hh)(2) Strategies Demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2).

Disposition

NUREG-0654 R2 Element N.3.e calls for the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2). 10 CFR 50.54(hh)(2) has been replace by 10 CFR 50.155(b)(2). Language of the two regulations is as follows:

10 CFR 50.54(hh)(2) (74 FR 13925)	***10 CFR 50.155(b)(2) (84 FR 39684)***
Each licensee shall develop and implement guidance and strategies intended to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the	*Extensive damage mitigation guidelines—Strategies and guidelines to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the*

Disposition

circumstances associated with loss of large areas of the plant due to explosions or fire, to include strategies in the following areas: *(i) Fire fighting;* *(ii) Operations to mitigate fuel damage; and* *(iii) Actions to minimize radiological release.*	*circumstances associated with loss of large areas of the plant impacted by the event, due to explosions or fire, to include strategies and guidelines in the following areas:* *(i) Firefighting;* *(ii) Operations to mitigate fuel damage; and* *(iii) Actions to minimize radiological release.*

Scope of Strategies Used in an Emergency Plan Related MBDBE Exercise

The Federal Register content (74 FR 13925) for implementation of 10 CFR 50.54(hh)(2) provided the following discussion:

Section 50.54(hh)(2) requires licensees to develop guidance and strategies for addressing the loss of large areas of the plant due to explosions or fires from a beyond-design basis event through the use of readily available resources and by identifying potential practicable areas for the use of beyond-readily-available resources. These strategies are to address a licensee's responses to events that are beyond the design basis of the facility. The requirements in the final rule are based on similar requirements originally found in the ICM order of 2002. Ultimately, these mitigative strategies were further developed and refined through extensive interactions with licensees and industry. The NRC recognizes that these mitigative strategies are beneficial for the mitigation of all beyond-design basis events that result in the loss of large areas of the plant due to explosions or fires. Current reactor licensees comply with these requirements through the use of the following 14 strategies that have been required through an operating license condition. These strategies fall into the three general areas identified by §§ 50.54(hh)(2)(i), (ii), and (iii). The fire-fighting response strategy reflected in § 50.54(hh)(2)(i) encompasses the following elements:

1. Pre-defined coordinated fire response strategy and guidance.

2. Assessment of mutual aid fire fighting assets.

3. Designated staging areas for equipment and materials.

4. Command and control.

5. Training of response personnel.

The operations to mitigate fuel damage provision in § 50.54(hh)(2)(ii) includes consideration of the following:

1. Protection and use of personnel assets.

2. Communications.

3. Minimizing fire spread.

4. Procedures for implementing integrated fire response strategy.

5. Identification of readily-available, pre-staged equipment.

6. Training on integrated fire response strategy.

7. Spent fuel pool mitigation measures.

The actions to minimize radiological release provision in § 50.54(hh)(2)(iii) includes consideration of the following:

1. Water spray scrubbing.

2. Dose to onsite responders.

The Commission considered specifically including these 14 strategies in § 50.54(hh)(2). However, the Commission decided that the more general performance-based language in § 50.54(hh)(2) was a better approach to account for future reactor facility designs that may contain features that preclude the need for some of these strategies. New reactor licensees are required to employ the same strategies as current reactor licensees to address core cooling, spent fuel pool cooling, and containment integrity. The mitigative strategies employed by new reactors as required by this rule would also need to account for, as appropriate, the specific features of the plant design, or any design changes made as a

Disposition

result of an aircraft assessment that would be performed in accordance with the proposed Aircraft Impact Assessment rule (72 FR 56287; October 3, 2007).

As shown above, the actual number/list of strategies was not included in the body of the 10 CFR 50.54(hh)(2) regulation.

Subsequent regulatory guidance clarified the list of EDMG response strategies, and the NRC endorsement of NEI 06-12 specifically provided seven EDMG strategies for PWRs, which have been tied to 10 CFR 50 Appendix E.IV.F.2.j.(iii)(4) by the NRC in ML20070K088:

- Makeup to RWST
- Manually Depressurize SGs to Reduce Inventory Loss
- Manual Operation of Turbine-Driven (or diesel-driven) AFW Pump
- Manually Depressurize SGs and Use Portable Pump
- Makeup to CST/AFWST
- Containment Flooding with Portable Pump
- Portable Sprays

In this regard, NUREG-0654 R2 guidance on the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] are as follows:

These exercises should address development and maintenance of the following skills associated with the 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] strategies:

- *Use of the strategies to mitigate spent fuel pool damage scenarios. All applicable strategies, such as makeup, spray, and leakage control, should be addressed, but not every variation of a given strategy needs to be addressed; and*
- *Use of the strategies to mitigate reactor accidents and maintain containment. Each of the 10 strategies for BWRs or 7 strategies for PWRs should be addressed based on the type of reactor, but not every variation of a given strategy needs to be addressed.*

Thus, the scope of strategies applicable to an emergency plan MBDBE exercise in the proposed emergency plan include the site specific strategies used to mitigate spent fuel pool damage scenarios and the 7 strategies for PWRs used to mitigate reactor accidents and maintain containment.

Strategy Frequency Used in an Emergency Plan Related MBDBE Exercise

10 CFR 50 Appendix E.IV.F.2.j.(iii), states that licensees shall vary the content of scenarios during exercises. MBDBE exercises are one of five types of exercise scenarios listed in Appendix E, each of which have multiple variations. Demonstration of all or multiple variations for each type of exercise scenario is not the intent of the regulation, and performance of all the possible exercise variations/strategies is not possible in the four NRC evaluated biennial exercises conducted within the cycle. As it is, the current list of exercise scenario types must already be combined in order to be demonstrated during a biennial NRC evaluated exercise.

Thus, only one MBDBE strategy needs to be performed in a biennial NRC evaluated exercise within the cycle. Similar to the scenario variations for the other types for exercises, MBDBE strategies are expected to be varied between exercise evaluations. An exercise with multiple strategies or more than one MBDBE based exercise within the cycle is not required by the proposed emergency plan.

Extent of Play Used in an Emergency Plan Related MBDBE Exercise

The relocation of 10 CFR 50.54(hh)(2) content to 10 CFR 50.155(b)(2) involved only minor wording changes. However, included in the movement of the regulation was the specific intent to not regulatorily require drills or exercises, as provided by the following discussion in the Federal Register (84 FR 39684):

The NRC noted that the conduct of drills or exercises was not included as a requirement in the Mitigation Strategies Order, instead being an element of an acceptable approach to meeting the order's requirement for training. Drills are addressed in the regulatory guidance for the Mitigation Strategies Order contained in section 11.6.5 of NEI 12-06, as endorsed by

Disposition

JLD-ISG-2012-01 and carried forward to the regulatory guidance for the final rule. NEI 12-06, Revisions 0 and 2 contained guidance on the content and periodicity of these drills, specifying the same 8-year period as was proposed for this rule. NEI 12-06, Revision 4, which is endorsed by the final version of Regulatory Guide 1.226, incorporates by reference further guidance on the performance of drills contained in the industry document NEI 13-06, Revision 1, "Enhancements to Emergency Response Capabilities for Beyond Design Basis Accidents and Events," which also specifies the 8-year period that was proposed for drill performance for this rule….

The NRC concludes that the requirements imposed by the Mitigation Strategies Order were sufficient to provide reasonable assurance of adequate protection and no new information was developed with regard to drills or exercises that would modify this conclusion. The NRC similarly concludes that imposing a requirement for drills and exercises would not provide a substantial increase in the overall protection of public health and safety. Therefore, the imposition of a requirement for drills or exercises would not meet the provisions of the Backfit Rule. The requirement for drills and exercises has been removed from the final rule….

In addition, the NRC did not revise the MBDBE drill frequency because it is specified in the regulatory guidance for the final rule in response to these comments. The NRC concluded that the 8-year periodicity strikes the correct balance in terms of providing an appropriate level of regulatory assurance, and, by aligning with the current emergency preparedness exercise requirements, it provides licensees with flexibility should they choose to implement the drills in conjunction with emergency preparedness drills or exercises.

However, 10 CFR 50 Appendix E does require licensees to provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to respond to a scenario under § 50.155(b)(2) once in each 8-calendar-year cycle in an exercise.

In this regard, NUREG-0654 R2 guidance on the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] are as follows:

The portion of a biennial exercise that involves demonstration of strategies associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] may be conducted separately from the main exercise timeline and sequence of events. Thus, the initiating event(s) for entry into site-specific guidelines or procedures associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] may differ from the initiating event(s) of the main exercise scenario and could involve an initiating event other than hostile action, such as a fire, flood, or explosion affecting large areas of the site, or station blackout. At a minimum, TSC and OSC staff would need to participate in this portion of the exercise. Participation of CR personnel, EOF staff, JIC staff, and offsite officials may be simulated consistent with the purpose of this portion of the exercise to maintain key ERO skills for familiarity with guidelines, procedures, and strategies associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)]. This includes the (simulated) deployment and use of equipment associated with these strategies and intended to maintain or restore core cooling, containment, and/or spent fuel pool cooling. The portion of the exercise scenario addressing demonstration of 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] related strategies should be included in the licensee's submittal of the biennial exercise scenario for NRC review. Exercises may also include the use of the NRC-endorsed mitigation strategies described in NEI 12-06, Revision 0, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide."

NEI 13-06, endorsed by the NRC and included in the Federal Register notice for implementation of 10 CFR 50.155(b)(2), provides additional information regarding the extent of play of MBDBE drills:

5.3.1 Industry Performance Standards for BDB Event Response Drills

Each licensee should demonstrate the capability for effective integrated use of their accident mitigation and management procedure and guideline sets. In particular, the ability to transition between procedure and guideline sets, and select the best strategy for preventing

Disposition

or mitigating fuel damage and limiting radiological releases, is demonstrated. Complementary methods will be necessary to accomplish this demonstration since the procedures and guidelines implemented for a given scenario are dependent upon the nature of the postulated initiating event, the plant response/accident sequence, and the ability of responders to select and implement mitigation/management strategies. The use of complementary methods will also promote more effective use of resources (e.g., facilitates targeted drill objectives, avoids excessive drill "down time" and durations, etc.), and minimize potential safety challenges to personnel and equipment. These methods are discussed below and involve conducting:

- *A drill that demonstrates the integrated use of FLEX strategies under the control of an Abnormal Operating Procedure (AOP) or Emergency Operating Procedure (EOP), as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.4.*
- *A drill that demonstrates the transition from a controlling AOP, EOP or Extensive Damage Mitigation Guidelines (EDMG) into Severe Accident Management Guidelines (SAMGs), and the selection of appropriate severe accident management strategies. The integrated use of FLEX strategies may occur if directed by the controlling SAMG and as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.5.*
- *A drill that demonstrates the use of EDMG strategies. The integrated use of AOPs and EOPs, and FLEX strategies, may occur if directed by the controlling EDMG as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.6.*

Thus, the extent of play applicable to an emergency plan MBDBE exercise in the proposed emergency plan specifies that only TSC and OSC ERO personnel are required staffing (although other emergency response facilities may be included) and demonstration involves;

(1) the transition from emergency operating procedures into Extensive Damage Mitigation Guidelines (EDMGs), FLEX support guidelines (FSGs), or Severe Accident Management Guidelines (SAMGs), and

(2) use of the EDMG, FSG or SAMG from a decision making and communications aspect with simulated field actions.

Summary

The proposed emergency plan replaces the NUREG-0654 element reference from 10 CFR 50.54(hh)(2) to 10 CFR 50.155(b)(2), and establishes the scope (meaning type of MBDBE strategies), number (meaning how many MBDBE strategies must be demonstrated within the cycle) and the ERO's extent of play of those exercises.

This detailed specification is consistent with 10 CFR 50 Appendix E.IV.F.2.j.(iii).

Other drills and training that involve personnel and response actions outside the scope of the emergency plan will continue to be conducted under the MBDBE program.

3.8.5 **[Potential RIE 7-5]** Reduced Hospital and Ambulance Drill Participation and Periodicity

NextEra Common Emergency Plan	**NUREG-0654 R2**
[CEP – N.4.a] Each NextEra site will conduct an onsite simulated medical drill once per calendar year. The scope of the emergency medical drill will include a simulated on-site injured and contaminated individual and medical/ first aid treatment, including contamination control. Emergency Medical Drill offsite participation and periodicity for support Hospital and Ambulance services are performed in accordance with the 42 CFR 482.15 regulations and are not included in the scope of the station medical drills.	N.4.a Emergency Medical Drills Emergency medical drills are conducted annually. These drills involve a simulated, contaminated individual and contain provisions for participation by support services agencies (i.e., ambulance and offsite medical treatment facility).

Disposition

The hospitals are accredited by The Joint Commission in compliance with 42 CFR 482.15, Condition of Participation: Emergency Preparedness. The regulations and accreditation require the hospitals to maintain an emergency plan and that the emergency preparedness program include, but not be limited to, the following elements (excerpts from the 42 CFR 482.15 regulation):

(a) Emergency plan. The hospital must develop and maintain an emergency preparedness plan that must be reviewed, and updated at least every 2 years. The plan must do the following:

(1) Be based on and include a documented, facility-based and community-based risk assessment, utilizing an all-hazards approach.

(2) Include strategies for addressing emergency events identified by the risk assessment.

(4) Include a process for cooperation and collaboration with local, tribal, regional, State, and Federal emergency preparedness officials' efforts to maintain an integrated response during a disaster or emergency situation.

(b) Policies and procedures. The hospital must develop and implement emergency preparedness policies and procedures, based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, and the communication plan at paragraph (c) of this section. The policies and procedures must be reviewed and updated at least every 2 years.

(d) Training and testing. The hospital must develop and maintain an emergency preparedness training and testing program that is based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, policies and procedures at paragraph (b) of this section, and the communication plan at paragraph (c) of this section. The training and testing program must be reviewed and updated at least every 2 years.

(1) Training program. The hospital must do all of the following:

(i) Initial training in emergency preparedness policies and procedures to all new and existing staff, individuals providing services under arrangement, and volunteers, consistent with their expected role.

(ii) Provide emergency preparedness training at least every 2 years.

(iii) Maintain documentation of the training.

(iv) Demonstrate staff knowledge of emergency procedures.

(v) If the emergency preparedness policies and procedures are significantly updated, the hospital must conduct training on the updated policies and procedures.

(2) Testing. The hospital must conduct exercises to test the emergency plan at least twice per year. The hospital must do all of the following:

Disposition

(i) Participate in an annual full-scale exercise that is community-based; or

(A) When a community-based exercise is not accessible, conduct an annual individual, facility-based functional exercise; or.

(B) If the hospital experiences an actual natural or man-made emergency that requires activation of the emergency plan, the hospital is exempt from engaging in its next required full-scale community-based exercise or individual, facility-based functional exercise following the onset of the emergency event.

(ii) Conduct an additional annual exercise that may include, but is not limited to the following:

(A) A second full-scale exercise that is community-based or an individual, facility-based functional exercise; or

(B) A mock disaster drill; or

(C) A tabletop exercise or workshop that is led by a facilitator and includes a group discussion, using a narrated, clinically-relevant emergency scenario and a set of problem statements, directed messages, or prepared questions designed to challenge an emergency plan.

(iii) Analyze the hospital's response to and maintain documentation of all drills, tabletop exercises, and emergency events, and revise the hospital's emergency plan, as needed.

Therefore, the hospitals use an all-hazards approach to determine the community-risk and priorities of its emergency response preparation (training, drills, etc.) on the risk / priority. Maintaining the Contaminated Medical Emergency Drill annual frequency, places a false priority /risk and circumvent the 42 CFR 482.15 community all-hazards regulations for the hospitals.

Ambulance services are under different regulations (primarily state regulations) but serves the same demographic and has similar community-risk and priority profile. Per the 42 CFR 482.15 regulation, the hospital’s emergency plan includes cooperation and collaboration of local emergency preparedness officials and an annual full-scale community-based drill. CEP Section O.1.a, NextEra will continue to offer emergency response training annually to the ambulance service(s). Training includes basic radiation protection, the notification process for their organization, and their organization’s expected role.

This change removes the requirement for hospital and ambulance participation in the annual emergency medical drill. The proposed CEP revision retains all other previous Offsite Response Organization (ORO) arrangements including offered annually training, offered participation in drills and pre-arrangements documented in Letters of Agreement (LOAs).

NextEra stations will continue to meet the requirements of 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, Section IV.F.1. NextEra stations will continue to have arrangements with the OROs; annual training will be offered, and hospital participation in the emergency medical drill will be coordinated under 42 CFR 482.15 requirements. NextEra stations will participate in the hospital’s community risk assessments to ensure the station’s is properly risk evaluated and prioritized.

On-site emergency medical drill and training will be provided annually for the station’s ERO. The training process/program will determine the need for additional on-site drills included in the training.

This drill participation arrangement was discussed with the OROs (hospitals and ambulance providers) and their concurrence is documented in Enclosure 10.

The 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations do not specify a frequency to perform the emergency medical drill. The annual frequency is specified in NUREG-0654 and provides the NRC approved guidance how to comply with the regulations. Licensees “may voluntarily use the guidance in the document to demonstrate compliance” with the NRC regulations or provide “methods or solutions that differ from those described.” The alternate method of basing the drill frequency on the ORO community-risk assessment is appropriate and meets the intent of the planning standards.

Disposition

The change to the emergency medical drill scope retains the annual requirement for the station while allowing the hospital and ambulance service the ability to participate under and within their regulatory requirements. This should provide a commitment which the NRC can evaluate as an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations.

3.8.6 **[Potential RIE 7-6]** Reduced Biennial Report-In Drill Frequency to Cycle

NextEra Common Emergency Plan	**NUREG-0654 R2**
Each NextEra site will conduct an off-hours unannounced ERO report-in drill at least once within an eight-year cycle. The scope of the off-hours unannounced ERO report-in drill will require actual response to the assigned facility. The Off-Hours Report-In Drill requirement may be satisfied by an actual event provided objectives are evaluated and documented in a critique report.	N.4.h Off-Hours Report-In Drills Off-hours report-in drills are conducted biennially and are unannounced.

Disposition

The current emergency plan requires an off-hours unannounced report-in drills once in each 8-year cycle. NUREG-0654, Revision 2, Element N.4.h requires that off-hours report-in drills be unannounced and conducted biennially. The proposed NextEra Common Emergency Plan specifies that an unannounced off-hours report-in drill be performed once per 8-year cycle.

Establishing the period for the off-hours report-in drill as once per 8-year cycle is based on the NUREG-0654, Revision 2, Element N.1.c requirement for a 6:00 p.m. and 4:00 a.m. drill or exercise to be performed once per cycle (which is off-hours).

In addition to the requirement of Element N.1.c, every biennial exercise requires demonstration of ERO response and ERF activation following declared emergencies. Requiring additional biennial off-hours report-in drills is a burden to the organization without a commensurate level of benefit to the emergency preparedness program.

Performance of the Element N.4.h call-in drill within the cycle periodicity provides sufficient demonstration of off-hours augmentation capability without significant impact on employees during late non-working hours.

3.8.7 **[Potential RIE 7-7]** Reduced Quarterly Call-In Drill Frequency to Biennially

NextEra Common Emergency Plan	**NUREG-0654 R2**
The NextEra ERO notification is an all-call process. Each NextEra site will conduct an off-hours unannounced ERO call-in drill biennially to verify each minimum staffing ERO position meets the required Table B-1 response time. The scope of the off-hours unannounced ERO call-in drill will require collection of the ERO notification system report which documents response within the required time. Completion of an Element N.4.h off-hours unannounced ERO report-in drill satisfies the requirements of the off-hours unannounced ERO call-in drill in this element.	N.4.i **Off-Hours Call-In Drills** Off-hours call-in drills are conducted quarterly, such that each ERO member's normally expected response time is assessed at least biennially based on call-in drill responses or an alternate means for determining response time. Some drills are unannounced.

NextEra Common Emergency Plan	NUREG-0654 R2
The Off-Hours Call-In Drill requirement may be satisfied by an actual event provided the objectives are evaluated and documented in a critique report.	

Disposition

NUREG-0654 R2, Element N.4.h designates that off-hour call-in drills be conducted at least quarterly, such that each ERO member's response time is validated at least biennially (with some drills being unannounced).

The proposed emergency plan specifies that off-hours call-in drill be performed biennially. Additionally, the non-period specific requirement for some drills to be unannounced has been established as a biennial frequency.

The NextEra ERO notification is an all-call process, which for call-in drills will collect response time estimates from the entire ERO. This process validates all ERO members' response time each time it is used.

Removing the quarterly requirement to test a portion of the ERO response and retaining the biennial requirement for a complete ERO response meets the intent of the NUREG-0654 element.

3.8.8 **[Potential RIE 7-8]** Added Minimum Staffing Drill Once per Cycle

NextEra Common Emergency Plan	NUREG-0654 R2
N.4.l **Minimum Staffing Drills** An ERO minimum staffing (no participation of non-minimum augmenting ERO personnel) drill is conducted at least once during every eight-year exercise cycle.	N/A
Each NextEra site will conduct a minimum staffing drill at least once within an eight-year cycle.	
A minimum staffing response drill requires facility activation, full transfer of responsibilities from the Control Room, and demonstration of event assessment and response activities.	

Disposition

There is no requirement to perform minimum augmenting ERO drills.

The proposed emergency plan has voluntarily added a requirement to conduct a minimum staffing drill once in each 8-year cycle to verify that the minimum augmenting ERO positions identified in the NextEra Common Emergency Plan can effectively implement the emergency plan without the assistance of additional support personnel.

Specific objectives will include timely facility activation, transfer of command and control, event assessment and classification, notification and response activities.

This change exceeds the ERO drill requirements of the current emergency plan and NUREG-0654 R2.

3.8.9 **[Potential RIE 7-9]** Added On-shift Response Drill Once per Cycle

NextEra Common Emergency Plan	**NUREG-0654 R2**
N.4.m **On-Shift Response** An ERO on-shift response (ERO augmentation no sooner than 90 minutes) drill is conducted at least once during every eight-year exercise cycle. Each NextEra site will conduct a minimum staffing drill at least once within an eight-year cycle. A minimum staffing response drill requires facility activation, full transfer of responsibilities from the Control Room, and demonstration of event assessment and response activities.	N/A

Disposition

There is no requirement to perform On-Shift Response Drill.

The proposed emergency plan has voluntarily added requirement to conduct one drill each 8-year cycle to verify that the on-shift ERO positions identified in the NextEra Common Emergency Plan can effectively implement the emergency plan without the support of augmenting ERO personnel for a minimum of 90 minutes after event declaration.

Specific objectives will include classification, notification and PAR functions with the on-shift staff.

This change exceeds the ERO drill requirements of the current emergency plan and NUREG-0654 R2.

3.8.10 **[Potential RIE 7-10]** Response Personnel Retraining Periodicity Not Specified

NextEra Common Emergency Plan	**NUREG-0654 R2**
Initial and continuing training is conducted to ensure ERO personnel are properly qualified to their specific position. Categories of ERO personnel requiring training include: 1. Emergency Directors (includes the aspect of classification, notification and PARs) 2. Accident Assessment 3. Radiation Protection and Monitoring a. ERO RPT position is qualified to ANSI technician standards. b. ERO RP Qualified Individual position is task qualified to perform the following: • Provide RP coverage for accessing known radiological environments (which includes respirator qualifications) • Control dosimetry and RCA access • Provide in-plant surveys c. ERO Field Monitoring Team Technicians receive initial training for the tasks they will be expected to perform during an emergency. The	O.1 Each organization ensures the training of emergency responders and other appropriate individuals with an operational role is described in the emergency plan. Initial training and at least annual retraining are provided.

NextEra Common Emergency Plan	NUREG-0654 R2
following general topics will be included in the training: • Equipment and equipment checks • Communications • Plume tracking techniques • Personnel monitoring • Emergency exposure criteria • Locations and use of radiological emergency equipment 4. Repair and Damage Control Teams a. Lead OSC Supervisor position is trained to perform RP supervisory tasks. b. Operations, maintenance, chemistry and radiation protection personnel who would be assigned to repair and damage control teams are trained as part of their normal job-specific duties to respond to both normal and abnormal plant conditions and work under direction of an ERO supervisor in the OSC. 5. Security a. Security personnel receive emergency plan training as part of their normal job specific training. b. Security personnel assigned a specific ERO position receive training on emergency plan related tasks. 6. Fire Brigade – Refer to the site fire protection program. 7. First Aid – Personnel assigned as first aid responders maintain qualifications equivalent to Red Cross Standard First Aid techniques.	

Disposition

As stated in section O.2 of the proposed emergency plan, the ERO training program is developed and evaluated based on position-specific responsibilities/tasks using Systems Approach to Training (SAT) principles, when applicable. The SAT process determines the necessary periodicity of the retraining (continuing training) on a task basis.

3.8.11 **[Potential RIE 7-11]** Training Program Review Periodicity Not Specified

NextEra Common Emergency Plan	**NUREG-0654 R2**
Changes to the training program are identified from trainee feedback and by critique items captured during drills and incorporated per the principles of the SAT process.	O.2.a The ERO training program is reviewed at least annually and revised as necessary.

Disposition

As stated in section O.2 of the proposed emergency plan, the ERO training program is developed and evaluated based on position-specific responsibilities/tasks using Systems Approach to Training (SAT) principles, when applicable. In addition to continuous training evaluation through drill and exercise critique process that identifies performance issues and initiates training reviews for particular tasks, the SAT process includes provisions for training program review.

3.9 Site Specific EP Commitment Analysis

This analysis identifies the PTN site-specific emergency preparedness commitments made to the NRC and determines whether they continue to be required in the proposed NextEra Common Emergency Plan or PTN Emergency Plan Annex.

The results of the analysis of on-going PTN site-specific NRC commitments and the commitments contained in the proposed NextEra Common Emergency Plan and PTN Emergency Plan Annex revealed that all site-specific NRC commitments are captured within the proposed emergency plan or procedures.

3.9.1 PTN has a site specific commitment to maintain the beyond design basis offsite support agency agreement for external spent fuel pool spray, which is controlled within the emergency plan, per AR 00442594, 2007-19851-NRC Commitment Tracking CR for B.5.B Strategies I Assignment 12-00, 2007-19851 ACTION ID: 8 (L-2007-007 Response Providing Information Regarding Details for the Phase 2 and 3 Mitigating Strategies, Enclosure 2).

3.10 Impact of Proposed Changes on State Emergency Plan

A draft copy of the proposed NextEra Common Emergency Plan and PTN Emergency Plan Annex was sent to emergency preparedness representatives at the State of Florida Division of Emergency Management (DEM), Florida Department of Health Bureau of Radiation Control (FH-BRC), Miami-Dade County, and Monroe County to inform them of the proposed changes and solicit comments.

State and county personnel provided information via electronic mail stating that the agency concurs with PTN's initiative to develop the NextEra Common Emergency Plan and PTN Emergency Plan Annex. Further concurrence will be acquired upon NRC approval of the proposed NextEra Common Emergency Plan and PTN Emergency Plan Annex and revisions to the ORO emergency preparedness programs will be conducted during the requested implementation period.

Refer to Enclosure 10, Offsite Response Organization Concurrence, for agency response regarding proposed changes to the PTN emergency plan.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The proposed NextEra Common Emergency Plan establishes an updated licensing basis for the NextEra sites that complies with current NRC regulations in 10 CFR 50.47(b) and 10 CFR 50, Appendix E. In addition, the proposed NextEra Common Emergency Plan is formatted and uses the NRC-generated guidance in NUREG-0654/FEMA-REP-1, Revision 2 (Reference 6.8).

RIS 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation (Reference 6.13), was also reviewed in support of this submittal.

The proposed changes have been evaluated against the applicable regulatory requirements and guidance criteria. Each section of the proposed NextEra Common Emergency Plan lists applicable regulations (all 10 CFR 50.47(b) planning standards are addressed) and Appendix 3 of the plan includes a cross reference to the 10 CFR 50 Appendix E Section IV criteria. The proposed NextEra Common Emergency Plan continues to assure that regulatory requirements and emergency planning standards associated with emergency response are met.

4.2 Precedent

NUREG-0654/FEMA-REP-1, Revision 2, issued December 2019, reflects changes to both NRC and FEMA regulations, guidance, policies, and doctrine, as well as advances in technology and best practices that have occurred since the document was originally issued in November 1980. This update also incorporates the four supplemental documents and addenda that have been issued in the intervening years and is intended to modernize and consolidate the guidance making it easier for users to understand.

The following are industry precedents of licensees requesting and receiving approval for a change of the Emergency Plan based on NUREG-0654, Revision 2, guidance:

- Duke Energy Corporation (Reference 6.18)
- South Texas Project Nuclear Operating Company (Reference 6.20)
- La Crosse Boiling Water Reactor (LABWR) / Dairyland (Reference 6.23)
- Southern Nuclear Operating Company (Reference 6.24)

The above Duke Energy and Southern Nuclear Operating Company are also recent precedents of common fleet emergency plans.

4.3 No Significant Hazards Consideration Determination Analysis

Pursuant to 10 CFR 50.90 and 10 CFR 50.54(q), amendment to the licenses for PTN Units 3 and 4 is being requested. Specifically, the proposed changes would revise the PTN operating licenses to adopt the proposed NextEra Common Emergency Plan that includes the PTN Emergency Plan Annex.

By standardizing emergency plans, NextEra will make improvements to the fleet by increasing consistency of organizations, duties and responsibilities, procedures, and training. NextEra also will align the sites using consistent standards and definitions. The changes will make NextEra 's emergency plan easier to follow and understand.

The requested amendments to the licenses support changes to the PTN emergency plan based upon completion of a supporting evaluation of the proposed NextEra Common Emergency Plan and PTN Emergency Plan Annex. The proposed changes will help align the NextEra nuclear sites' emergency preparedness programs with NUREG-0654 Revision 2.

The proposed changes have been reviewed considering the applicable requirements of 10 CFR 50.47, 10 CFR 50 Appendix E and other applicable NRC guidance criteria. NextEra has evaluated the proposed changes and determined that those changes do not involve a Significant Hazards Consideration. In support of this determination, an evaluation of each of the three (3) standards, set forth in 10 CFR 50.92, *"Issuance of amendment,"* is provided below.

1. ***Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?***

   Response: No.

   The proposed changes do not increase the probability or consequences of an accident. The proposed changes do not impact the function of plant Structures, Systems, or Components (SSCs). The proposed changes do not affect accident initiators or accident precursors, nor do the changes alter design assumptions. The proposed changes do not alter or prevent the ability of the onsite ERO to perform their intended functions to mitigate the consequences of an accident or event. No changes are proposed to the ERO, emergency classifications, accident assessment, notification methods, facilities and equipment, training, or public agency support that would alter the consequences of an accident. The proposed changes establish a new NextEra Common Emergency Plan with site specific annexes and modifies the emergency response organization (ERO). The new emergency plan continues to meet applicable requirements and standards as well as provide for effective emergency response. The new emergency plan also continues to provide necessary response staff for emergencies as demonstrated by functional analysis as well as staffing analysis in accordance with 10 CFR 50 Appendix E.IV.A.9.

   Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. ***Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?***

   Response: No.

   The proposed changes have no impact on the design, function, or operation of any plant SSCs. The proposed changes do not affect plant equipment or accident analyses. The proposed changes do not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed), a change in the method of plant operation, or new operator actions. The proposed changes do not introduce

failure modes that could result in a new accident, and the proposed changes do not alter assumptions made in the safety analysis. The proposed changes establish a new NextEra Common Emergency Plan with site-specific annex and modifies the emergency response organization (ERO). The new emergency plan continues to meet applicable requirements and standards as well as provide for effective emergency response. The new emergency plan also continues to provide necessary response staff for emergencies as demonstrated by functional analysis as well as staffing analysis in accordance with 10 CFR 50 Appendix E.IV.A.9.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

Margin of safety is associated with confidence in the ability of the fission product barriers (i.e., fuel cladding, reactor coolant system pressure boundary, and containment structure) to limit the level of radiation dose to the public.

The proposed changes do not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analyses. There are no changes being made to safety analysis assumptions, safety limits, or limiting safety system settings that would adversely affect plant safety as a result of the proposed changes. Margins of safety are unaffected by the proposed changes to the PTN emergency plan.

The proposed changes do not impact operation of the plant or its response to transients or accidents. The proposed changes do not involve a change in the method of plant operation, and no accident analyses will be affected by the proposed changes. Safety analysis acceptance criteria are not affected by these proposed changes. The proposed changes will continue to provide effective emergency response as well as the necessary onsite ERO response staff.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

4.4 Conclusions

In conclusion, based on the considerations discussed above: 1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, 2) such activities will be conducted in compliance with the Commission's regulations, and 3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

6.1 10 CFR 50.47, Emergency Plans

6.2 10 CFR 50.54(q), Conditions of licenses – Emergency Plans

6.3 10 CFR 50.90, Application for amendment of license, construction permit, or early site permit

6.4 10 CFR 50, Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities

6.5 Regulatory Guide 1.219, Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors, Revision 1, July 2016

6.6 NSIR/DPR-ISG-01, Interim Staff Guidance, Emergency Planning for Nuclear Power Plants, Revision 0, November 2011

6.7 NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Revision 1, November 1980

6.8 NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, , Revision 2, December 2019 (ML19347D139)

6.9 NUREG-0654/FEMA-REP-1 Supplement 3, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants – Guidance for Protective Action Strategies, November 2011 (ML113010596)

6.10 Technical Basis for the Proposed Guidance in NUREG-0654/FEMA-REP-1, Section II.B, “Emergency Response Organization” (ML16117A427)

6.11 NUREG-0696, Functional Criteria for Emergency Response Facilities, February 1981 (ML051390358)

6.12 NUREG-0737, Supplement 1, Clarification of TMI Action Plan Requirements – Requirements for Emergency Response Capability, January 1983 (ML102560009)

6.13 RIS 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation, August 2016 (ML16124A002)

6.14 NEI 10-05, Assessment of On-Shift Emergency Response Organization Staffing and Capabilities, Revision 0, June 2011

6.15 NEI 99-01, Development of Emergency Action Levels for Non-Passive Reactors, Revision 6, November 2012

6.16 PTN Updated Final Safety Analysis Report (UFSAR)

6.17 FPL Letter to NRC, Turkey Point Units 3 and 4 Docket Nos. 50-250 and 50-251 Emergency Plan, Revision 8, dated August 24, 1981 (L-81-365)

6.18 Letter from NRC to Duke Energy Corporation – Catawba Nuclear Station, Units 1 and 2; McGuire Nuclear Station, Units 1 and 2; Oconee Nuclear Station, Units 1, 2 and 3; Brunswick Steam Electric Plant, Units 1 and 2; Shearon Harris Nuclear Power Plant, Unit 1; and H. B. Robinson Steam Electric Plant, Unit No. 2 – Issuance of Amendments for Common Emergency Plan Consistent with NUREG-0654, Revision 2, dated August 26, 2021

6.19 Letter from Duke Energy to NRC – *License Amendment Request for Common Emergency Plan Consistent with NUREG-0654, Revision 2*, dated September 3, 2020 (ADAMS Accession No. ML20247J468)

6.20 Letter from NRC to STP Nuclear Operating Company – South Texas Project, Units 1 and 2 – Correction to Amendment Nos. 221 and 206 to Authorize Revision of the Emergency Plan Based on NUREG-0654/FEMA-REP-1, Revision 2, dated May 11, 2021

6.21 Letter from South Texas Project Nuclear Operating Company to NRC – *License Amendment Request to Revise South Texas Project Electric Generating Station (STPEGS) Emergency Plan*, dated March 30, 2020 (ADAMS Accession No. ML20090B745)

6.22 Letter from Southern Nuclear Operating Company to NRC – *License Amendment Request for Revise the Emergency Plan to Change Staffing and Extend Staff Augmentation Times for Emergency Response Organization Positions*, dated June 30, 2020 (ADAMS Accession No. ML20192A140)

6.23 La Crosse Boiling Water Reactor – Issuance of Amendment No. 77 Approving Independent Spent Fuel Storage Installation Emergency Plan, Revision 40, dated April 20, 2022

6.24 Letter from NRC to Southern Nuclear Operating Company – Farley Nuclear Plant, Units 1 and 2; Hatch Nuclear Plant, Units 1 and 2; and Vogtle Generating Plant, Units 1 and 2 – Issuance of Amendments Regarding Revision to Emergency Plan to Change Staffing and Extend Staff Augmentation Times for Emergency Response Organization Positions (ADAMS Accession No. ML21217A091)

Attachment 1 – ERO Staffing Plan Comparison Table

Function	Position Title	NUREG-0654 R2				Current E-Plan				Proposed E-Plan		
		Shift	Alert 60 Min	Alert 90 Min	SAE 60 Min	Shift	Alert 30 Min	Alert 60 Min	SAE 60 Min	Shift	Alert 60 Min	Alert 90 Min
Plant Systems Operations	Unit Supervisor					2						
	Reactor Operator					3						
	Nuclear Operator					4						
	Assistant Nuclear Operator					1						
Command and Control / Facility Management	Shift Manager	1				1				1		
	Site Emergency Director (TSC)		1					1				1
	EOF Manager (EOF)				1				1			1
	TSC Supervisor (TSC)							1				
Emergency Classifications	Shift Classification Advisor	1(a)								1(a)		
	TSC Classification Advisor (TSC)		1					1				1
	RM Operations Advisor (EOF)								1			
Communications	Shift Communicator	1(a)				1(a)				1(a)		
	ORO Communicator (TSC)		1				1					1
	ENS Communicator (TSC)		1					1				1
	ORO Communicator (EOF)				1				1			
Supervision RP Activities	Shift Manager	1(a)								1(a)		
	TSC RP Coordinator (TSC)		1					1				1
	EOF RP Coordinator (EOF)				1							1
Radiation Protection	RPT	2	3	3		2	4	4		1		3
	RP Qualified Individual									1		2
Dose Assessments / Projections	Shift Dose Assessor	1(a)								1(a)		
	Remote Dose Assessor (Remote)		1				1				1	
	EOF Dose Assessor (EOF)				1				1			1
Field Monitoring Teams	Onsite FMT Technician		1									
	Onsite FMT Driver		1									
	Offsite FMT Technician (EOF)		1	1			2	2				2
	Offsite FMT Driver (EOF)		1	1								2

Attachment 1 – ERO Staffing Plan Comparison Table

Function	Position Title	NUREG-0654 R2				Current E-Plan				Proposed E-Plan		
		Shift	Alert 60 Min	Alert 90 Min	SAE 60 Min	Shift	Alert 30 Min	Alert 60 Min	SAE 60 Min	Shift	Alert 60 Min	Alert 90 Min
Supervision of Repair Team Activities	Lead OSC Supervisor (OSC)		1					1				1
	FIN Supervisor (OSC)							1				1
	Electrical Supervisor (OSC)			1								
	Mechanical Supervisor (OSC)			1								
	I&C Supervisor (OSC)			1								
	RP Supervisor (OSC)			1			1					
	Maintenance Manager (TSC)							1				
	Chemistry Supervisor (TSC)							1				
Repair Team Activities	Electrician (OSC)		1				1	1				1
	Mechanic (OSC)		1					2				1
	I&C Technician (OSC)			1			1					1
	Chemistry Technician (OSC)							1				
Engineering and Plant Monitoring	STA	1(a)				1		1		1(a)		
	Emergency Technical Mgr (TSC)							1				
	Electrical/I&C Engineer (Remote)		1					1			1	
	Mechanical Engineer (Remote)		1					1			1	
	Reactor Engineer (Remote)		1				1				1	
	DCS/ERDADS Operator (EOF)								1			
Security	Security Shift Supervisor									1		
	Security Force	(b)				(b)				(b)		
	Security Liaison (TSC)		1					1				1
	Emergency Security Manager (EOF)								1			
Media Information	JIS / JIC Staff		(c)		(c)						(c)	
	Site JIS Manager (Site)							1				1(c)
	Site JIS Coordinator (Site)											1(c)
	Remote JIS Manager (Remote)											1(c)
Information Technology (IT)	IT Coordinator (TSC)			1								(d)
	IT Coordinator (EOF)				1							(d)
ERO Totals – Full Breakdown		**3**	**20**	**11**	**5**	**14**	**12**	**24**	**6**	**4**	**4**	**26**
ERO Totals – On-shift and Minimum Staffing		**3**	**36**			**14**	**42**			**4**	**30**	
ERO Totals – All Required Positions Filled		**39**				**56**				**34**		

(a) These positions are collateral duties. Positions assigned to the collateral duties can perform their assigned tasks without overlap or overburden.

Attachment 1 – ERO Staffing Plan Comparison Table

(b) Per the site Security Plan.
(c) JIS function established at this point. Activation of the JIC is coordinated with the offsite agencies and carries no time requirement.
(d) IT personnel monitor critical digital assets remotely and respond any time an issue is identified.

Enclosure 4

NextEra Energy Seabrook, LLC

Seabrook Station, Unit 1

Docket 50-443 / Renewed Facility Operating License NPF-86

License Amendment Request for Common Emergency Plan
Consistent with NUREG-0654, Revision 2

EVALUATION OF PROPOSED CHANGES

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1.0 SUMMARY DESCRIPTION

Pursuant to 10 CFR 50.90, NextEra Energy Seabrook,, LLC (NESB) requests amendments to the operating licenses for Seabrook Station (SBK). Specifically, the proposed changes would revise the operating licenses to adopt the proposed NextEra Common Emergency Plan and site-specific annexes. The proposed NextEra Common Emergency Plan establishes an updated licensing basis for SBK that complies with current NRC regulations in 10 CFR 50.47 (Reference 6.1) and 10 CFR 50 Appendix E (Reference 6.4), and the guidance NUREG-0654/FEMA-REP-1 Revision 2 (Reference 6.8).

NextEra has developed the proposed common emergency plan using the NUREG-0654/FEMA-REP-1, Revision 2 outline and is organized such that each evaluation criterion (or planning element) is explicitly stated, followed by a description of how the NextEra Common Emergency Plan will address that criterion.

The proposed NextEra Common Emergency Plan provides the basis for response actions that would be implemented in an emergency and the requirements for maintenance and administration of the emergency preparedness program. Planning elements common to all sites are encompassed within the common emergency plan. The site-specific annexes generally contain unique information such as:

- Local agency and support organizations, site specific agreement lists, etc.
- Site specific response facilities and equipment
- Site specific commitments

The formal SBK Emergency Plan consists of the following separately maintained Emergency Preparedness (EP) licensing basis documents, all of which are subject to the requirements of 10 CFR 50.54(q) (Reference 6.2):

- NextEra Common Emergency Plan
- SBK Emergency Plan Annex
- SBK Emergency Action Level Technical Basis
- SBK On-Shift Staffing Analysis
- SBK Evacuation Time Estimate Study
- SBK Protective Action Recommendation Strategy Technical Basis
- SBK Alert and Notification System Design Report

Enclosures 5 through 9 contain the proposed NextEra Common Emergency Plan and the site-specific emergency plan annexes, respectively. This license amendment request is limited to the proposed NextEra Common Emergency Plan, SBK Emergency Plan Annex, and the On-Shift Staffing Analysis, of which only the proposed NextEra Common Emergency Plan and the SBK Emergency Plan Annex require NRC approval. The results of the On-Shift Staffing Analysis are described in Section 3.5 of this change evaluation. The remaining Emergency Plan licensing basis documents are not affected by the re-baselining of the SBK Emergency Plan.

2.0 DETAILED DESCRIPTION

2.1 Proposed Changes

The proposed NextEra Common Emergency Plan was developed based upon NRC guidance contained in NUREG-0654/FEMA-REP-1, Revision 2 (Reference 6.8).

This re-baselining of the emergency plan includes revisions to align staffing with the functions and major task delineations, specifically the on-shift and minimum augmenting Emergency Response Organization (ERO) assigned within these functional areas. Consistent with the NUREG-0654/FEMA-REP-1, Revision 2, the proposed changes will also remove reference to non-minimum augmenting ERO positions from the emergency plan while retaining appropriate positions in the applicable implementing procedures.

Changes in the proposed NextEra Common Emergency Plan and SBK Emergency Plan Annex that could be considered a reduction in effectiveness (RIE) from the updated NUREG-0654/FEMA-REP-1, Revision 2, guidance or from the current SBK emergency plan have been identified in this document as potential RIEs. Detailed justification is provided for those potential RIEs in Section 3, Technical Evaluation, to document that the proposed NextEra Common Emergency Plan and SBK Emergency Plan Annex continues to provide an adequate response to radiological emergencies.

- Section 3.1 documents the technical advancements and program enhancements implemented after the original Emergency Plan was approved or are included in the proposed Emergency Plan
- Section 3.2 documents and dispositions the RIEs determined in the ERO functional analysis
- Section 3.3 documents and dispositions the RIEs determined in the ERO augmentation analysis
- Section 3.4 documents and dispositions the RIE determined in the ERO task analysis
- Section 3.5 documents the results of the ERO on-shift staffing analysis
- Section 3.6 documents and dispositions the RIEs determined in the approved Emergency Plan to current Emergency Plan comparison analysis
- Section 3.7 documents and dispositions the RIEs determined in the proposed Emergency Plan to current Emergency Plan comparison analysis
- Section 3.8 documents and dispositions the RIEs determined in the proposed Emergency Plan to NUREG-0654/FEMA-REP-1, Revision 2, criterion comparison analysis
- Section 3.9 documents the results of the site specific commitment analysis
- Section 3.10 documents the impact of the proposed changes on state and ORO emergency plans

Additionally, an Emergency Plan to 10 CFR 50 Appendix E comparison analysis was developed. The results of this analysis are documented in Appendix 3 of the proposed NextEra Common Emergency Plan (Enclosure 5).

2.2 Reason for the Proposed Changes

The SBK emergency plan is being converted into the proposed NextEra Common Emergency Plan and SBK Emergency Plan Annex, which are based primarily on the NUREG-0654/FEMA-REP-1 Revision 2 guidance.

By standardizing the emergency plans across the fleet, NextEra will make program wide improvements by standardization of response organizations, duties and responsibilities, processes, procedures, and training. NextEra also will align the sites using consistent standards and definitions.

2.3 Current SBK Emergency Plan Background

NUREG-0896, Supplement No. 9, Safety Evaluation Report (SER) was received in March 1990 (ML20012E283) (Reference 6.17), documents approval of the emergency plan (Revision 4).

- SBK Emergency Plan revision 4 contains all original sections
- SBK Emergency Plan revision 5 contains updated sections based on NRC requests of clarification

3.0 TECHNICAL EVALUATION

The evaluation of the proposed changes is discussed below.

3.1 Technical Advancements and Program Enhancements

The sub-sections below describe the site-specific and industry improvements implemented or proposed since the last revision of the NUREG-0654 /FEMA-REP-1 guidance and initial approval of the SBK emergency plan. The industry has had following generic process, program and technical change enhancements:

- Plant systems and procedures, including:
  - Severe Accident Management Guidelines (SAMG)
  - FLEX Support Guidelines (FSG)
  - Extensive Damage Mitigation Guidelines (EDMG)
  - EOP/AOP
  - Plant computer, control and instrumentation systems
- Emergency preparedness (EP) programs, processes, and equipment, including:
  - Communication and notification systems (Plant and public)
  - Dose Assessment programs and processes
  - Emergency Action Levels (EALs)
  - NRC ERDS system
- Operator, ERO, and General Employee Training (GET) training
- Radiological monitoring systems
- Computer and internet usage
- Work Control – Risk Assessment

Many of the advancements and enhancements have resulted from responses to Three Mile Island, Chernobyl, September 11th, and Fukushima. These changes have been instituted and codified, in many cases, which better supports ERO functions, ease operator burden, and improves augmented ERO efficiency.

In addition to site specific and industry enhancements, the Nuclear Regulatory Commission (NRC) has updated and improved on regulations, guidance documents (NUREGs), inspections (ISGs), Regulatory Issue Summaries (RISs), etc. which has resulted in overall positive emergency preparedness programs. Specifically, the Emergency Preparedness Final Rule (10 CFR 50.47, Emergency Plans and Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities, to 10 CFR 50 (published in the Federal Register (FR) on November 23, 2011 (76 FR 72560)) codified Emergency Preparedness program enhancements for security and non-security event related topics. The Final Rule included improvements and clarity based upon technology advances implementation and lessons learned from drills/exercises and actual events. The Final Rule included the following:

- On-Shift Staffing Analysis

- Emergency Response Organization Augmentation at Alternate Facility
- Licensee Coordination with Offsite Response Organizations
- Protective Actions for Onsite Personnel
- Challenging Drills and Exercises
- Emergency Declaration Timeliness
- EOF – Performance-Based Approach
- Backup Means for Alert and Notification Systems
- ORO Event Response Integration with Nuclear Power Plants
- Emergency Action Levels (EALs) for Security Events
- Amended Emergency Plan Change Process
- Updating of Evacuation Time Estimates (ETEs)

The improvements to processes, procedures, equipment, and training that have occurred since initial approval of the SBK emergency plan have resulted in a significant increase in on-shift and augmented ERO knowledge and capability.

These improvements collectively support the overall conclusion that there would be no degradation or loss of function resulting from the changes in the proposed SBK emergency plan.

3.1.1 Information Gathering and Display Systems

SBK's plant computer system has been upgraded several times since the original SBK emergency plan was approved. The current system, Satellite Display System (SDS) graphically displays pertinent parameters with trending and graphing capabilities, alarm functions, and color-coded Critical Safety Function Status Trees. SDS provides the capability to monitor and trend plant parameters in real-time, including primary coolant system parameters, reactor core thermal performance parameters, emergency core cooling system (ECCS) parameters, meteorological data, containment isolation status, and radiation monitor readings.

The SDS user interface was designed to be intuitive, require inputs, and allow for active monitoring of real-time plant data via system diagrams and Critical Safety Function displays. The SDS computer system is powered via Vital AC Power with a DC battery backup.

Benefits of the upgraded SDS system include:

- Programming capability for automated response, such as indication of critical parameter alarms
- Improved plant monitoring capability for Emergency Director and STA functions
- Fewer inputs required to switch between graphical displays
- Real-time plant data available through graphical displays

Additionally, the SDS provides plant and environmental data used to assess abnormal operating conditions and mitigate the consequences of an accident. SDS performs the following emergency response support functions:

- Implementation of the Safety Parameter Display System as described in NUREG-0696 and NUREG-0737, Supplement 1.
- Data acquisition and signal processing for the Engineered Safety Features Status Monitoring System.
- Data acquisition and signal processing for the normal plant monitoring systems, including portions of the plant annunciator system.
- Data processing for offsite datalinks to the NRC Emergency Response Data system (ERDS).

SDS workstations are provided in the Control Room, Auxiliary Shutdown Panels (ASP), TSC, and EOF.

3.1.2 Dose Assessment and Protective Action Recommendations

The NUREG-0654/FEMA-REP-1, Revision 1 emergency plans included exposure and dose rate determination using transparent overlays showing lines of constant dose appropriate for the existing meteorological conditions together with appropriately scaled maps of the area surrounding the plant (a manual method). Since then, radiological dose assessment has benefited from technological advances that make its use simpler and less time consuming. Dose assessment program advancements have simplified rapid assessment capability, and on-shift dose assessment, allowing the function to be performed as a collateral duty.

SBK plans to implement the Unified RASCAL Interface (URI), a user friendly Visual Basic.net program when the Common Emergency Plan is implemented. The current version of URI is a Microsoft Windows-based application and supports multi-unit / multi-accident assessment of radiological releases. URI utilizes menus and toolbars with the majority of inputs on a single screen making the program user friendly. URI has simplified data entry requirements and dose assessment can be performed with minimal data input. Computer displays have been developed to obtain the necessary plant, radiological effluent, area radiation monitor, and meteorological near-real time information that is used by on-shift and augmenting ERO personnel to perform dose assessment. Thus, dose assessment enhancements have reduced the time required to perform dose assessment and to provide the results to the Emergency Director.

Redundant dose assessment computers were installed as part of the implementation of Cyber Security requirements. SBK has an individual plant data screen dedicated to the needs of dose assessment inputs.

The plant display systems (see discussion above) have improved over the years allowing access to more data points used with dose assessment.

Dose assessment results and field monitoring readings assist in evaluating appropriate Emergency Classification Levels (ECLs) based on radiological Emergency Action Levels (EALs) and developing Protective Action Recommendations (PARs).

The ERO uses NUREG-0654/FEMA-REP-1, Revision 1, Supplement 3 based flowcharts to determine the appropriate Protective Action Recommendation to provide to offsite authorities, which allow for rapid determination of a PAR based on plant conditions, wind direction and radiological assessments.

The overall improvements in technology and information availability over the years have enabled the on-shift staff to assess plant conditions quickly and efficiently, and with less distraction than before. The computational power of modern processors allows for calculation of dose projections that take seconds rather than minutes.

3.1.3 Procedural Improvements

a. Emergency Operating Procedures (EOPs)

Since NUREG-0654/FEMA-REP-1, Revision 1, EOPs have been developed and improved through industry initiatives. EOPs generally use a symptom-based approach that demands less assessment and interpretation of plant conditions by the operators. In addition, the EOPs are better human factored, and have an improved layout allowing for more consistent implementation.

EOPs interface well with new technology such as the plant process control system. The plant process control system is capable of graphically displaying plant conditions to assist in EOP execution.

b. Emergency Action Levels (EALs)

NextEra has updated their EAL scheme to the latest NRC endorsed scheme published in NEI 99-01, Development of Emergency Action Levels for Non-Passive Reactors, Revision 6. The SBK EALs incorporate the new guidance that has simplified the classification process, including the use of a matrix of EAL initiating conditions that streamlines the process of evaluating EALs against plant conditions.

3.1.4 Training

a. Operations Training

Training is used to strategically drive improved performance at the NextEra sites. Since NRC NUREG-0654/FEMA-REP-1, Revision 1, use of the Systematic Approach to Training process has resulted in developing a task list for operations personnel. This process ensures training is conducted to industry-accepted standards and has led to accreditation of the Operations Training Programs by the Institute of Nuclear Power Operations (INPO) National Academy for Nuclear Training.

The simulator is routinely used during operations training. Simulator requalification evaluations include emergency response scenarios. Simulator scenarios are designed to be realistic and reflect a wide range of plant conditions, including emergency conditions. During simulator-evaluated sessions the Control Room staff is taken from normal operations to accident conditions which require evaluation against EALs and may result in an ECL up to a General Emergency. The operations crew performs emergency plan critical functions, such as classification, core damage assessment, accident mitigation, response prioritization, and communications without augmentation from additional responders. The proficiency of the Control Room staff in performing these functions, while maintaining situational awareness, without additional support is assessed during evaluated simulator sessions.

The Licensed Operator Requalification program includes licensed operations crew performance evaluations that are to consider the scenario guidance attributes of INPO Operations Department Standing Instruction, ODSI-3, Operations Department Guidance for Conducting Crew Performance Evaluations.

INPO ODSI-3 provides guidance on the realistic integration of the emergency response into crew performance evaluations. The purpose is to ensure the challenges the Emergency Plan responsibilities add to the crew's ability to manage an event are realistically represented in crew training and performance evaluations.

b. Shift Technical Advisor Training

The Shift Technical Advisor (STA) was originally trained as an advisor to the operating shift per NUREG-0737, Clarification of TMI Action Plan Requirements. In 2014, additional guidelines were developed by INPO for the training of STAs. This is detailed in the document ACAD 14-002, Guidelines for the Training and Qualification of the Shift Technical Advisor.

The ACAD 14-002 guidelines describe the role of the STA. The STA performs independent assessments of plant operating concerns, technical support, appropriate corrective actions, analysis of events and their effects, effectiveness of response(s) to emergent conditions, classifications of emergencies, protection of the public and any other actions related to critical safety functions and plant safety during abnormal and emergency situations. By routine monitoring of equipment and plant operations, the STA can focus on preventative actions in order to mitigate the consequences of an accident.

The STA training and qualification program adheres to the requirements of INPO 90-003 and is implemented by training program procedures.

3.1.5 Radiation Protection (RP) Improvements

There have been many improvements in RP since the ERO staffing was established under NUREG-0654/FEMA-REP-1, Revision 1, guidance. There have been advances in technology for currently available equipment such as portal monitors, self-reading and alarming dosimeters, and automated access control points.

Some RP support functions associated with in-plant protective actions, such as access control, personnel monitoring, and dosimetry are now included in rad worker training and qualification given to operations and maintenance personnel. These tasks now require much less dedicated support from RP personnel since they are performed by a broader segment of the organization using newer technology, tools, and plant process enhancements. The following summarizes these enhancements:

a. Access Control and Dosimetry

When the SBK emergency plan was originally issued, radiological access control was a labor-intensive task. Dedicated Radiation Protection Technicians (RPTs) were required to ensure workers read and understood their Radiation Work Permit (RWP). Issuance of dosimetry was a manual process requiring RPTs to calibrate, issue and record dosimeters, verify worker training, and verify and track radiation dose margins.

Radiological access control is now automated using computerized radiation protection work processes. Radiological access control is primarily completed using electronic dosimetry, which is obtained prior to entry into Radiologically Controlled Areas (RCAs). The electronic dosimeter is also used as a "key" to unlock turnstiles to gain access to RCAs. Electronic RWPs establish the necessary preset electronic dosimeter warning and alarm parameters. Using electronic dosimeters eliminates the need for access control and dosimetry oversight by an RPT. Electronic RWP access control and electronic dosimeter computer systems provide a fully integrated system allowing workers to sign-in to their RWP and to self-issue electronic dosimeters. These systems have been routinely used by plant workers for numerous years. Additionally, emergency electronic dosimeters are available for use when expedited entrance to an RCA is required.

b. Personnel Monitoring

Automated whole-body and extremity monitors provide simplified contamination monitoring. All radiation workers are qualified to use the automated whole-body monitors without RPT support or direction.

When the automated whole-body monitors are not available, hand-held friskers can be used for personnel contamination monitoring. All radiation workers are qualified to use the hand-held friskers without RPT support or direction.

3.1.6 Automated Call-Out Systems

Since initial approval of the SBK emergency plan, NextEra has implemented enhancements to the ERO mobilization process, including updated technology capable of rapidly notifying the entire ERO. The original process used a pager network and call tree process, while the current process uses a multi-line automated callout system that notifies ERO members via pagers, cell phones, home phones and internet (as applicable) via an activation dedicated computer. For redundancy, the automated notification system has a primary and backup facilities located in different geographic locations with separate computer systems and databases, and communications lines.

3.2 ERO Key Function Analysis

The ERO Key Function Analysis compares and evaluates the current emergency plan on-shift and minimum staff ERO positions against those in the proposed emergency plan and in NUREG-0654 R2 guidance. Staffing deviations in the proposed emergency plan from the current emergency plan and NUREG-0654 R2 are categorized as potential RIEs and evaluated to determine whether the capability to perform the function is sustained (no degradation or loss of function).

Refer to Attachment 1, ERO Staffing Plan Comparison Table, for a side-by-side summary staffing and augmentation comparison between NUREG-0654 R2 Table B-1, the current emergency plan, and the proposed emergency plan.

The Key Function Analysis establishes that no degradation or loss of function, or mis-alignment or loss of task assignment would occur as a result of any change made to the on-shift and minimum augmenting ERO positions. This alternate staffing approach continues to support timely and effective performance of the Major Functional Areas and Major Tasks listed in NUREG-0654 R2 Table B-1.

3.2.1 **[Potential RIE 1-1]** No EOF Director/ED Position

The proposed emergency plan does not assign an EOF Emergency Director minimum staff ERO position at the Site Area Emergency classification level for the Command and Control function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Command and Control function from two (2) to one (1). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *For a SAE ECL, or greater, these functions (or a subset of them), typically those associated with protective action recommendations (PARs), should be assigned to an Emergency Director located in the EOF….*

The NextEra TSCs and EOFs are activated at an Alert emergency classification level. By activating both the TSC and EOF at an Alert emergency classification level and maintaining the non-delegable tasks of classification, notification, and PARs in the TSC, the proposed emergency plan does not need to provide additional augmenting ERO positions to move those tasks between emergency response facilities.

An EOF Emergency Director minimum staff ERO position is not needed at the Site Area Emergency classification level as the Command and Control function, along with all non-delegable responsibilities, are transferred from the Shift Manager to the Site Emergency Director at the Alert emergency classification level and remain in the TSC throughout a declared emergency. This change in the proposed emergency plan simply retains the Command and Control function in the TSC with the Site Emergency Director.

3.2.2 **[Potential RIE 1-2]** No EOF ORO Communicator Position

The proposed emergency plan does not provide a EOF ORO Communicator minimum staff ERO position at the Site Area Emergency classification level for the Communications function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the ORO aspect of the Communications function from two (2) to one (1). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee. These are typically located in the TSC. For an SAE ECL, or greater, at least 1 additional communicator should be staffed in the EOF.*

NUREG-0654 R2 guidance designates the Offsite Response Organization (ORO) (State/County) communication location as 'typically' in the TSC based on staggered activation of the emergency response facilities.

The NextEra TSCs and EOFs are activated at an Alert emergency classification level. By activating both the TSC and EOF at an Alert emergency classification level and maintaining the non-delegable tasks of classification, notification, and PARs in the TSC, the proposed emergency plan does not need to provide additional augmenting ERO positions to move those tasks between emergency response facilities.

An EOF State/County Communicator minimum staff ERO position is not needed at the Site Area Emergency classification level as the Communications function for the ORO remains in the TSC throughout a declared emergency. This change in the proposed emergency plan simply retains the Communications function for the ORO in the TSC.

3.2.3 **[Potential RIE 1-3]** On-shift RP Personnel Allowed Collateral Duties

The proposed emergency plan allows collateral duty assignments to be given to radiation protection personnel when performing the Radiation Protection function. Specifically, this change allows radiation protection personnel to perform the Dose Assessment /Projections function and support other on-shift actions when not assigned a response activity. This change deviates from the NUREG-0654 R2 on-shift staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *The ability to provide radiological expertise when the plant is experiencing an event with serious radiological consequences is crucial, due to the unknown radiological environment faced by emergency workers, particularly at the onset of the event. This function should be staffed by 2 qualified RP staff members on-shift (or 1 per unit for multi-unit sites). These staff members should not have any collateral duties during emergency response.*

Consistent with NUREG-0654 R2, the proposed emergency plan assigns the Dose Assessments / Projections as a collateral duty. This emergency response collateral duty can be assigned to any on-shift individual qualified in Dose Assessment.

Personnel who are not ANSI qualified RPTs, such as an appropriately trained and qualified operator or a chemistry technician, may be assigned to the dedicated on-shift RPQI position. When the RPQI position is not filled by a qualified ANSI RPT, they cannot be given time sensitive or other tasks during emergency response that interfere with the Radiation Protection function.

3.2.4 **[Potential RIE 1-4]** Fewer OSC RP Response Personnel

The proposed emergency plan reduces the number and qualifications of minimum staff ERO positions for the Radiation Protection function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Radiation Protection function from six (6) in the current emergency plan and in NUREG-0654, to five (5) in the proposed emergency plan, consisting of three (3) RPTs and two (2) RP Qualified individuals that are task trained but not required to be ANSI equivalent RPTs. This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *While not all Alert ECLs (or lower) have radiological consequences, licensees should develop their ERO staffing plans for a worst-case scenario from a radiological risk perspective, i.e., an event which results in the immediate (within 60-minutes) loss of 2 or more fission product barriers leading to significant and unknown radiological conditions. The augmentation (support) of this position should occur in two stages: within 60 minutes of an Alert ECL or greater, 3 additional qualified RP staff should be available, and within 90 minutes of an Alert ECL, or greater, an additional 3 additional qualified RP staff should be available, and both are typically staffed in the OSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Personnel assigned to perform this function should be fully qualified HP technicians as described in ANSI/ANS-3.1-1993, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants," that was approved for use by Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants."14 Personnel who are typically trained to a level of "meter qualified" to perform basic HP duties are not trained or do not have the necessary experience to perform complex HP duties, as discussed in HPPOS-0238, that would be necessary in a radiological emergency. For example:*
>
> *(1) Typically the training does not include providing HP coverage for other personnel.*
>
> *(2) Radiation protection is not normally incorporated into normal job duties.*
>
> *(3) Radiological conditions during an emergency may be unknown or rapidly changing.*
>
> *The following emergency plan functions would constitute in-plant protective actions, which would require a fully qualified HP technician:*

- *Provide guidance for personnel protection to assist in minimizing personnel exposure.*
- *Provide guidance for exposure authorizations, dose guidelines, and post-exposure assessments.*
- *Provide job coverage for in-plant repair and corrective actions, and operations support, under changing radiological conditions.*
- *Provide guidance for emergency decontamination of personnel, equipment, and facilities.*
- *Provide guidance for personnel contamination control and respiratory protection.*

NUREG-0654 R1 lists the RPT functions assigned to the six augmenting OSC RPTs as:

- In-Plant Surveys
- HP coverage for repair, corrective actions, search, and rescue first aid & firefighting
- Personnel Monitoring
- Dosimetry
- Access Control

These functions have been reworded but remain similar in NUREG-0654 R2 as:

- Provide in-plant surveys
- Provide radiation protection coverage for responders accessing unknown radiological environments during emergency conditions
- Control dosimetry and control area access

The number of augmenting RPTs for the above functions in NUREG-0654 R2 Table B-1 has not changed from the number in NUREG-0654 R1 Table B-1.

The following guidance documents were considered in the staffing of augmenting ERO radiation protection personnel in the common emergency plan:

- Per RIS 2016-10, the licensee could show that the basis for the justification includes the availability of installed area, process, airborne and effluent radiation monitors, automated systems and information technology solutions, and enhanced work processes that would be available under accident conditions. Supporting tools and processes that may be considered include portal monitors, self-alarming dosimeters, and automated access control system for the radiologically controlled area (RCA) that maintain active radiation work permits, which are readily available if an emergency is declared (e.g., the system verifies qualifications, dose margins, and access requirements).
- Per HPPOS-238, Health Physics Technicians (HPTs) may independently perform specific tasks or job assignments if they meet the required prerequisites and complete the required task qualifications of their plant training programs. There are certain tasks and job assignments, however, that require in-depth knowledge and can only be performed by fully qualified ANSI technicians.

NextEra controls the qualification of the ERO as outlined in 10 CFR 50.47(b)(15). To ensure that qualifications are consistent throughout the fleet, the RPQI qualification requirements are maintained in Section O of the proposed emergency plan. The RPQI ERO personnel will be task qualified to the tasks listed in NUREG-0654 Revision 2 Table B-2 (shown above)

This approach meets the intent of 50.47(b)(15) and allows the Systematic Approach to Training (SAT) process to determine and control the RPQI qualification requirements by task. The proposed emergency plan will utilize the SAT process to set the qualification requirements of the RPQI, independent of an ANSI 8.1 standard, while ensuring that all personnel are trained to be able to respond to an emergency – not to be a day-to-day RPT.

Per NUREG-0713, Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities 2004 and Draft Tables and Figures for 2020 NUREG-0713, the Average Measurable TEDE per individual has decreased from 0.31 rem (1995) to 0.09 rem (2020). Advances in technology in access control, electronic dosimetry (personnel monitoring and remote monitoring), pre-developed RWPs (for normal and for emergency conditions), and ARM/PRM plant computer information display systems reduce radiation protection personnel involvement in radiological activities and have contributed to the decrease.

- Dosimetry and access control is established using technological means to ensure that personnel wear the correct dosimetry into the radiological controlled area and are signed onto the RWP (affirming that they have read and understand the RWP). Telemetry with field communications and dosimetry can provide the RP personnel all data that one would have previously needed equipment and multiple personnel to perform.
- On-shift and augmented ERO radiation protection coverage is monitored and provided by radiation protection personnel. The radiation protection personnel ensure that dispatched personnel are provided real time information on radiological conditions when deployed and if conditions change at the work location. In-plant radiological conditions are provided using technology available to the radiation protection personnel on the plant computer information display systems.

As this technology has become more integrated at NextEra sites and throughout the industry for normal and outage operations their use has become common-place. As such, radiation protection personnel that are properly trained on the technology outlined here are proficient with their use in emergency response functions. These enhancements would be used during a radiological emergency.

The OSC utilizes the day-to-day “Fix-It-Now” (FIN) Team concept, which includes radiation protection support as necessary. OSC minimum staffing requires 3 craft personnel. An RPT would monitor plant conditions remotely and assist the Lead OSC Supervisor with RP oversight activities while the other RP personnel (RPTs and RPQIs) could be tasked with providing coverage for craft personnel if a team is dispatched into a radiologically controlled area.

All NextEra sites are Pressurized Water Reactor (PWR) designs. There are fewer radiologically controlled areas at PWRs than at Boiling Water Reactor (BWR), which allows for less RP support staff during normal operations. Per Draft Tables and Figures for 2020 NUREG-0713, the Average Collective Dose per Reactor in 2020 is 31 person-rem at PWRs and 95 person-rem at BWRs. Even with a SG tube rupture using the main condenser as the cooldown medium, the turbine buildings will not be unmanageable with

the responders as the major steps of each site's emergency operating procedures for a SG tube rupture will have completed their major functions of "identify – isolate – cooldown – depressurize – terminate safety injection" are expected to be complete prior to ERO arrival. All temperature control steps later in the procedures where the ERO may be present will be minimal temperature control steps which send minimal additional contaminated steam into the secondary systems. As the limiting accident that will expand radioactively controlled/ contaminated areas outside of the radiologically controlled area, there is no need to staff PWR sites at the same level outlined in the NUREG, which factored in BWR designs into their calculations for staffing levels.

The above statements support the position that Radiation Protection function can be performed by the four augmentation radiation protection personnel ERO positions.

3.2.5 [**Potential RIE 1-5**] No On-site Field Monitoring Team

The proposed emergency plan does not staff the onsite field monitoring minimum staff ERO position for the Field Monitoring Teams function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the onsite field monitoring aspect of the Field Monitoring Teams function from two (2) to zero (0). This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO position guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *The ability to locate, monitor, and track a radioactive plume is important to ensure appropriate protective measures are taken in response to a radiological event. The ability to staff these teams before they may be needed (i.e., before a radiological release) greatly enhances the ability of the licensee to provide timely and accurate PARs.*
>
> - *An onsite FMT should be staffed, consisting of a monitor and a driver. This onsite FMT is responsible for radiological monitoring of the site's Protected Area. …*
>
> *i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.*
>
> *iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.*

NUREG-0654 R2 Table B-1 guidance for augmenting Field Monitoring Team staffing has not changed from NUREG-0654 R1 (six total personnel) despite the technology (equipment and communications) and process advancements in the last 40+ years.

NUREG-0654 R2 designates one on-site (including inside of the Protected Area) Field Monitoring Team and one off-site Field Monitoring Team responding in 60 minutes to be ready to respond to a radiological release or to detect the radiation in the field thus confirming and quantifying a release. A second off-site Field Monitoring Team responding in 90 minutes is added to back up the first off-site Field Monitoring Team.

On-site Field Monitoring Team Driver ERO Position

On-site survey and sampling activities are performed without a vehicle since the site Protected Area boundaries are relatively small and plume tracking is not applicable. The Protected Area can be easily and efficiently traversed on foot or in a utility vehicle. The survey equipment is portable and does not require two individuals for transport or operation. Thus, there is no need for an on-site Field Monitoring Team Driver.

On-site Field Monitoring Team Technician ERO Position

The current emergency plan utilizes two Field Monitoring Teams, primarily assigned to monitor conditions outside the Protected Area. NextEra typically uses an individual from the pool of OSC radiation protection personnel to perform on-site out-of-plant (inside the Protected Area) surveys if needed. However, one of the two Field Monitoring Teams may be call upon to enter the Protected Area to perform surveys when OSC radiation protection personnel are assigned other tasks.

For NextEra stations, two Field Monitoring Teams are sufficient to perform on-site and off-site field monitoring activities. All NextEra sites are located on major bodies of water (their EPZs being approximately 40% water or greater) with no requirements nor capabilities for monitoring activities on these bodies of water. As each site's EPZ is ~40+% water, there is not as much area to cover for the field monitoring teams. With NextEra EPZs being effectively smaller than landlocked sites, less personnel are needed to cover an effectively smaller EPZ.

Additionally, the NUREG-0654 R2 technical basis for the ERO staffing guidance includes the following clarification:

> *The onsite FMT should not be staffed if the radiological conditions jeopardize the safety of the FMT, typically after a Site Area Emergency has been declared.*

Based upon NRC guidance two Field Monitoring Teams are sufficient to monitor radiological conditions after a SAE is declared. By not designating onsite and offsite FMTs, a total of two FMTs can sufficiently provide radiological monitoring at NextEra stations under all conditions.

3.2.6 **[Potential RIE 1-6]** No OSC RP Supervisor Position

The proposed emergency plan does not include an OSC RP Supervisor minimum staff ERO position to the Supervision of Repair Team Activities function. This change deviates from the current emergency plan minimum staff ERO position requirements and the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *An … RP Supervisor should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the craft [personnel] resources for the additional 30-minutes prior to the [supervisory] respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).*

The Lead OSC Supervisor is assigned the RP aspect of the Supervision of Repair Team Activities. To ensure that Lead OSC Supervisor position can perform the RP supervision sub-function, their ERO training / qualification program will include previous RP Supervisor experience or will receive training to supervise RP emergency response tasks. See Section O of the proposed emergency plan for the description of the qualification of the Lead OSC Supervisor.

OSC radiation protection personnel responding to the event will report to the Lead OSC Supervisor. With 3 RPTs and 2 RPQIs responding, an RPT can assist the Lead OSC Supervisor and FIN Supervisor with coordination of RP activities needed to dispatch OSC teams, thus not overburdening the Lead OSC Supervisor. If there is a particular question for RP supervision, the TSC RP Coordinator would also be available to answer or coordinate a response to questions.

3.2.7 **[Potential RIE 1-7]** Single Craft Supervisor Position

The proposed emergency plan does not assign OSC maintenance supervisors for each craft. Specifically, this change reduces the number of OSC craft supervisor minimum staff ERO positions used for the Supervision of Repair Team Activities function from three (3) to one (1). This change deviates from the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

> *An Electrical Supervisor, a Mechanical Supervisor, an I&C Supervisor … should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the craft [personnel] resources for the additional 30-minutes prior to the [supervisory] respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).*

The FIN Supervisor fills the supervisor role for mechanical, electrical and I&C craft disciplines. This is a deviation from NUREG-0654 R2 guidance which only discusses combining Electrical and I&C supervisory roles.

The current SBK ERO allows for the management of craft personnel under a single supervisor hierarchy. The position of FIN Supervisor is filled by management and supervisory personnel from the Maintenance Department who is assigned, during ERO activation, with direction of all disciplines within the department. OSC performance under this organizational structure has been demonstrated in numerous evaluated exercises and remains consistent with the acceptable OSC staffing hierarchy of the current Emergency Plan.

3.2.8 **[Potential RIE 1-8]** No Shift Personnel Assigned to Repair Activities

The proposed emergency plan does not assign an on-shift ERO position (assigned this function if no collateral duties are assigned) to the Repair Team Activities function. Specifically, this change reduces the overall number of on-shift staff ERO positions used for the Repair Team Activities function from one (1) to zero (0). This change deviates from the current emergency plan on-shift staff ERO position requirements.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO guidance states that:

> *Revision 1 of NUREG-0654/FEMA-REP-1 did not describe why maintenance personnel were expected to be on-shift. This has led to issues related to consistency in interpretation and the expected qualification of these personnel, primarily on-shift. The NRC has determined that, from an EP perspective, the ability to get emergency core cooling system (ECCS) equipment operational was the primary basis for necessitating maintenance expertise while on-shift. Maintenance staff expertise may be advantageous for licensees to consider for other reasons, and at their discretion; however, for the purposes of NUREG-0654/FEMA-REP-1, the only area where maintenance availability should typically be necessary on-shift is for ECCS issues. However, a licensee's ECCS is designed to be redundant and diverse such that common mode failures are very unlikely. As a result, the need to accommodate maintenance functionality on-shift is unnecessary.*

Maintenance personnel are not required for the operation of the ECCS or other safety related systems. Minor repairs (such as reset breakers, replace fuses, lubricate equipment, install spool piece, etc.) are performed by on-shift operations personnel qualified to perform the actions as part of normal, abnormal and emergency operating procedure activities. Major repair activities are not necessary to support the emergency operations procedures which ensure the plant can be placed in a safe shutdown condition.

Use of maintenance personnel for beyond design basis tasks, such as FLEX and/or SAMG activities, is documented and controlled outside the scope of the emergency preparedness program and are governed under other applicable regulations and guidance.

Use of maintenance personnel for fire brigade or rescue activities are outside the scope of the emergency preparedness program and are governed under other applicable requirements, such as the site fire protection plan and technical specifications for that function.

Maintenance personnel are not trained or used to perform EP functions (such as offsite communications). Emergency Plan Implementing Procedures (EPIPs) do not assign any on-shift response actions to maintenance personnel.

No functional changes have been made to the on-shift staff ERO positions for the Repair Team Activities function.

3.2.9 **[Potential RIE 1-9]** Fewer Craft Responders

The proposed emergency plan reduces the number of Electrical Maintenance from two (2) to one (1) and Mechanical Maintenance from two (2) to one (1) minimum staff ERO positions to the Repair Team Activities function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Repair Team Activities function from five (5) to three (3). This change deviates from the current emergency plan minimum staff ERO position requirements.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

A minimum number of maintenance personnel should respond to an event as part of the ERO, with more personnel available on an as-needed basis depending on the event. The augmentation (support) of the electrician and mechanic positions should occur within 60-minutes of an Alert ECL, (or greater), and is typically staffed in the OSC. The augmentation (support) of the I&C position should occur within 90-minutes of an Alert ECL, or greater, and is typically staffed in the OSC.

Maintenance personnel are not assigned specific ERO response tasks in the proposed emergency plan. Maintenance personnel designated as minimum augmenting ERO are used as needed for skill of craft tasks.

Staffing for events which involve extensive damage have been analyzed in accordance with NEI 12-01 and are addressed under FLEX requirements.

This change is consistent with the staffing plan of NUREG-0654 R2.

3.2.10 **[Potential RIE 1-10]** Fewer JIC Support Staff

The proposed emergency plan reduces the number of JIC Support Staff from three (3) to one (1) Site JIS Coordinator minimum staff ERO positions for the Media Information Activities function. Specifically, this change reduces the overall number of minimum staff ERO positions used for the Media Information function from six (6) to three (3). This change deviates from the current emergency plan minimum staff ERO position requirements.

Deviation Justification: The proposed emergency plan provides a minimum staff complement of three (3) dedicated ERO positions to coordinate with non-ERO corporate communications personnel and perform activities related to the Media Information function.

The NextEra Corporate Communications and key business units maintain a staff to operate a Joint Information System (JIS) for day-to-day operations and at all emergency classification levels. The NextEra Corporate Communications and key business units respond to media and public inquiries for abnormal conditions and events at any declared emergency classification level. The NextEra Corporate Communications and key business units coordinate with site management and ERO personnel, when staffed, to respond to media inquiries. Press releases are issued as appropriate from the NextEra Corporate Communications and key business units.

3.2.11 **[Potential RIE 1-11]** No IT Technician ERO Positions

The proposed emergency plan does not assign IT Technicians in the TSC and EOF/JIC. Specifically, this change reduces the number of IT Technicians minimum staff ERO positions used for the Information Technology function from two (2) to zero (0). This change deviates from the NUREG-0654 R2 minimum staff ERO guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO staffing guidance states that:

Advances in technology have led to significant enhancements in many areas of emergency response, such as communications, monitoring, displays, digital procedures, etc. Licensees should consider the use of this technology whenever it enhances their ability to protect the health and safety of the public. However, if the implementation of the emergency plan is so reliant on this technology that without it, the emergency plan could not be implemented, then an IT Lead should augment (support) the response within 60-minutes of an Alert ECL, or greater, if the TSC/OSC has this technology; and within 60-minutes of an SAE ECL, or greater, if the EOF or JIC/JIS has this technology. If the licensee has capable backup plans for if/when this technology fails, then this function is not necessary. In other words, if the ERO is reliant upon technology such that its loss would prevent the ERO from functioning, then a support position should be part of the ERO to assist in recovery of this technology. If the loss of this technology would lead to the implementation of backup strategies, then this position would not need to be part of the ERO and can be called upon as-needed. Licensees should consider using the listing of critical digital assets, identified in accordance with 10 CFR 73.54, as the basis for determining if this position should be considered part of the EROs augmented response.

Per NUREG-0654 R2, minimum staff ERO IT positions are only required to be described in the emergency plan if critical digital assets (CDAs) are identified per 10 CFR 73.54, Protection of digital computer and communication systems and networks. The proposed emergency plan relies on DCS/ERDADS for monitoring plant parameters, which has been determined to be a CDA. The IT process for addressing issues with CDAs operates full time outside the emergency plan on a 24/7 basis. Additionally, NextEra maintains an IT Help Desk 24 hours per day, 7 days a week. Many computer issues are addressed remotely with an IT specialist through the Help Desk.

Each of the EP related digital assets were evaluated as part of implementation of the Cyber Security Rule, 10 CFR 73.54(b). Under NEI 13-10, "Cyber Security Control Assessments," EP Critical Digital Assets have been assessed and controls have been put in place to protect the assets against cyber-attack. In conjunction with these controls, alternate administrative, non-digital, or adequately independent means have been put in place for performing each EP function, should the digital component or program fail.

Performance of digital equipment used by EP has shown to be acceptable during drills and exercises, and through routine inventory and surveillance checks. Performance of digital assets is monitored through either the Corrective Action Program (CAP) or the drill and exercise critique process. Performance trends are monitored, corrective actions are issued, and compensatory measures are taken as necessary.

With the IT department process for 24/7 coverage and built-in redundancy for communication systems and digital EP assets, NextEra has identified that there is no need to maintain an IT Technicians as minimum staff ERO positions.

3.3 ERO Augmentation Analysis

The ERO Augmentation Analysis compares and evaluates the current emergency plan on-shift and minimum staff ERO positions against those in the proposed emergency plan and in NUREG-0654 R2 guidance. Augmentation deviations in the proposed emergency plan from the current emergency plan and NUREG-0654 R2 are categorized as potential RIEs and evaluated to determine whether the timeliness to perform the function is sustained without overburden of the on-shift staff.

Refer to Attachment 1, ERO Staffing Plan Comparison Table, for a side-by-side summary staffing and augmentation comparison between NUREG-0654 R2 Table B-1, the current emergency plan, and the proposed emergency plan.

NUREG-0654 R2 establishes 60 and 90 minute minimum staff ERO augmentation time requirements for the TSC and OSC positions at the Alert emergency classification level; and a 60 minute minimum staff ERO augmentation time requirement for the EOF at the Site Area Emergency classification level.

The current emergency plan follows a 60 minute augmentation scheme as approved by the NRC in 1989 with the following main elements:

- All ERO personnel are notified at the Unusual Event emergency classification level (response to facilities is elective for the Shift Manager).
    - Primary Responders - dependent on their ERO position - will either report to the site or remain at their current location
    - Subject-to- Call and Secondary Responders are called out to respond to their assigned facility at the Alert emergency classification level.
- The TSC, OSC and EOF are required to be activated at the Alert emergency classification level.
- The JIC is activated as soon as possible at an Alert or higher emergency classification level when determined appropriate with the offsite agencies, and whenever the EOF is activated.

The proposed emergency plan follows a 60 and 90 minute augmentation scheme with the following main elements:

- All ERO personnel are notified at the Unusual Event emergency classification level (response to facilities is elective for the Shift Manager), and called out to respond to their assigned facility at the Alert emergency classification level.
- The TSC, OSC, EOF and Remote positions are activated at the Alert emergency classification level.
- NextEra implements JIS practices that are capable of performing the media information function at all emergency classification levels.
- The near-site JIC is activated when determined appropriate with the offsite agencies (at an Alert or higher emergency classification level).

The ERO augmentation analysis concludes that the differences in times between the proposed common emergency plan 60 and 90 minute response criteria and the NUREG-0654 R2 60 and 90 minute response criteria does not adversely delay turnover of responsibilities or negatively impact/overburden the ability of the on-shift personnel to perform operational actions or key functions. This alternate staffing approach continues to maintain initial facility accident response in all key functional areas at all times and provides timely augmentation of response capabilities.

3.3.1 **[Potential RIE 2-1]** Site Emergency Director at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time for the Site Emergency Director minimum staff ERO position that performs the Command and Control function.

This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *This function is typically assigned to the Operations Shift Manager (OSM). The augmentation (relief) of this position is intended to relieve the OSM of EP functions so that the OSM can focus on the event response from an operations perspective. This should occur within 60-minutes of an Alert ECL declaration, or greater, and is typically a position staffed within the TSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Per the guidance in NUREG-0654, Table B-1, an augmented "Senior Manager" should fulfill the "Emergency Operations Facility Director" major task at 60 minutes. A licensee requesting a change in staff augmentation requirements that would have the lead manager unavailable to assume command and control within 60 minutes of the initial emergency declaration should show that the on-shift staff includes enough qualified supervision such that one supervisor will assume the emergency director role. The licensee should show that the on-shift supervisor performing the manager actions will not have any additional duties (e.g., each unit under the direction of a unit supervisor, a shift manager providing oversight of the plant response, and a designated emergency director responsible for emergency plan implementation).*

The Shift Manager is given overall command and control with regard to ERO response activities. The position is used to perform Emergency Classification Level (ECL) determinations and develop Protective Action Recommendations (PARs), and to direct or perform ORO notification.

Historically, actual events have resulted in single ECL declarations with no further escalation. Realistic event progression that challenges multiple fission product barriers is relatively slow as demonstrated by the events at TMI and Fukushima. In this case, immediate plant operations and ERO response actions occur with 60 minutes of actual events and the on-shift staff are not burdened (tested) with multiple classifications.

Planning for a wide range of events, including rapidly progressing severe accidents (RPSA) is also required. These "fast breaker" events rise to the SAE or GE classification level without progressing through the lower ECLs. In this case, immediate plant operations and ERO response actions occur with 60 minutes of the RPSA scenario and the on-shift staff are not burdened (tested) with multiple classifications.

Event scenarios that do required escalation of the ECL prior to ERO augmentation are included in drills and exercises for the on-shift ERO. Technology and process enhancements including communications (ERNIE), ERDS, EAL matrix, PAR flowchart, etc. have reduced the time and attention it takes to perform tasks along with enhancing the effectiveness and efficiency of task performance. In addition, NUREG-0654 R2 has added a Classification Advisor position to assist and work in coordination with the Shift Manager, which NextEra has included as a collateral duty in the on-shift complement.

All Initiating Conditions (ICs) need to be demonstrated within the 8-year cycle. All Unusual Event and Alert level ICs are preformed from the Control Room. Thus, the opportunities for the Shift Manager to demonstrate the ability to perform emergency and operations responsibilities are provided multiple times over the 8-year cycle.

The demonstration and evaluation of the Shift Manager to perform their emergency plan functions is continuously evaluated during emergency planning drills/exercises and operations training simulator sessions. Various scenarios are used to evaluate the Shift Manager's ability to perform the following emergency planning functions, technical specification responsibilities and operations oversight.

Operations training simulator sessions test and evaluate the Shift Manager's ability to effectively and efficiently perform all required functions / responsibilities until the event is stabilized (session is complete); this in some circumstances is greater than the 90 minutes ERO response time. Note – there is no minimum required length of time for the training sessions.

Licensed Operator Continuing (LOR) training periodically has scenarios that extend to 90 minutes without augmented ERO involvement. For example, a training scenario is performed on a periodic basis to ensure that a FLEX Beyond Design Basis External Event can be mitigated by the minimum on-shift staff. The FLEX scenario assumes that the ERO will not be on site to provide support for a minimum of 6 hours. While this is covered under 10 CFR 50.155 and not Appendix E, the example is given as a major event where augmented ERO response is not provided while the site compliment is under heavy demand for action to mitigate the event.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for at least 90 minutes. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Command and Control function out to 120 minutes.

The Site Emergency Director 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the Command and Control function.

3.3.2 **[Potential RIE 2-2]** Classification Advisor at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC Classification Advisor minimum staff ERO position that performs the Emergency Classifications function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC.*
>
> *Maintaining the ability to perform this function at all times ensures that ECL decisions, and as applicable, the PAR decisions, are timely and accurate as these decisions have a direct relationship to public health and safety from the consequences of a radiological event. This function shall work in coordination with the OSM, or Emergency Coordinator, depending on which position is in command and control, and as a result should be available on shift and in the TSC.*

The on-shift Classification Advisor is given a limited role with regard to ERO response activities. The position is used to second check Emergency Classification Level (ECL) determinations and Protective Action Recommendations (PARs) developed by the Shift Manager, and to support ORO notification information accuracy. The on-shift Classification Advisor has received training to perform their assigned EP functions and assist the Shift Manager with emergency responsibilities.

Historically, actual events have resulted in single ECL declarations with no further escalation. Realistic event progression that challenges multiple fission product barriers is relatively slow as demonstrated by the events at TMI and Fukushima. In this case, immediate plant operations and ERO response actions occur with 60 minutes of actual events and the on-shift staff are not burdened (tested) with multiple classifications.

Planning for a wide range of events, including rapidly progressing severe accidents (RPSA) is also required. These “fast breaker” events rise to the SAE or GE classification level without progressing through the lower ECLs. In this case, immediate plant operations and ERO response actions occur with 60 minutes of the RPSA scenario and the on-shift staff are not burdened (tested) with multiple classifications.

Event scenarios that do required escalation of the ECL prior to ERO augmentation are included in drills and exercises for the on-shift ERO. Technology, process and procedure enhancements to classification, notification and PAR development (such as Emergency Response Notification for Incidents and Events (ERNIE), ERDS, EAL matrix, PAR flowcharts, etc.) have simplified response activities and enhanced the effectiveness and efficiency of task performance. The on-shift Classification Advisor position’s ability to perform second checks specifically benefits from these advancements such that continuation of their ERO related tasks from 60 to 90 minutes is not a burden.

All Initiating Conditions (ICs) need to be demonstrated within the 8-year cycle. All Unusual Event and Alert level ICs are preformed from the Control Room. Thus, the opportunities for the on-shift Classification Advisor to demonstrate the ability to perform emergency and operations responsibilities are provided multiple times over the 8-year cycle.

The demonstration and evaluation of the on-shift Classification Advisor to perform their emergency plan functions is continuously evaluated during emergency planning drills/exercises and operations training simulator sessions. Various scenarios are used to evaluate the on-shift Classification Advisor’s ability to perform the following emergency planning functions, technical specification responsibilities and operations oversight.

Operations training simulator sessions test and evaluate the on-shift Classification Advisor’s ability to effectively and efficiently perform all required functions / responsibilities until the event is stabilized (session is complete); this in some circumstances is greater than the 90 minutes ERO response time. Note – there is no minimum required length of time for the training sessions.

Licensed Operator Continuing (LOR) training periodically has scenarios that extend to 90 minutes without augmented ERO involvement. For example, a training scenario is performed on a periodic basis to ensure that a FLEX Beyond Design Basis External Event can be mitigated by the minimum on-shift staff. The FLEX scenario assumes that the ERO will not be on site to provide support for a minimum of 6 hours. While this is covered under 10 CFR 50.155 and not Appendix E, the example is given as a major event where augmented ERO response is not provided while the site compliment is under heavy demand for action to mitigate the event.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for at least 90 minutes. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Emergency Classifications function out to 120 minutes.

Establishing the 90-minute augmentation requirement for the TSC Classification Advisor minimum staff ERO position does not impact the capability or timeliness to perform the Emergency Classifications function or overburden the on-shift position.

3.3.3 **[Potential RIE 2-3]** ORO Communicator at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC ORO Communicator minimum staff ERO position that performs the State/County notifications aspect of the Communications function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this position should occur within 60-minutes of an Alert ECL, or greater, and is intended to relieve the on-shift staff of this EP function. This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *To adequately support the elimination or extension of the two 60-minute responders, the licensee should show that two on-shift positions are identified to fill the 60-minute responder's role to "Notify licensee, State, local and Federal personnel [and] maintain communication." The licensee should show that these positions are not assigned other tasks that may prevent the timely performance of their assigned notification or communication functions, as specified in the emergency plan. The licensee should discuss how communication technologies employed by the proposed on-shift staff will support timely, effective, and reliable notifications. Additionally, the communications technologies should be referenced in the emergency plan to ensure that future changes are reviewed using the RG 1.219 change process, as they were used as the basis for the proposed change.*

Technology advancements of Emergency Response Notification for Incidents and Events (ERNIE) allows a streamlined process for ERO notification and ORO notification. Specifically, the technology advancements have enhanced initial notification to the ORO by using an electronic system that contacts the ORO warning points and emergency management staff via email, text and verbal computer-generated voice communications, thus eliminating the need for a communicator to perform the verbal portion of the initial notification.

ORO activation occurs from the site's warning points based upon the initial notification form information. The forms are negotiated and approved with OROs to provide information needed to make initial response decisions. As such, there should be minimal need for OROs to request additional information from the site Communicators. ERNIE provides the site with validation that the information has been received by the OROs.

If any the OROs need additional information prior to ERO activation (90 minutes), the NextEra control rooms are equipped with speaker and/or headset phones which aid the in the performance of the communication function. The technical advancement allows personnel to perform the communication task without negatively impacting the performance of other emergency plan or operations responsibilities.

NextEra has added a drill/ exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for 90 minutes as a verification that the shift can perform their function with no assistance. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the NRC notifications aspect of the Communications function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the State/County notifications aspect of the Communications function. The OROs concur with the NextEra Common Emergency Plan changes including the 90-minute ERO augmentation (refer to Enclosure 10).

3.3.4 **[Potential RIE 2-4]** ENS Communicator at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC ENS Communicator minimum staff ERO position that performs the NRC notifications aspect of the Communications function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The augmentation (relief) of this position should occur within 60-minutes of an Alert ECL, or greater, and is intended to relieve the on-shift staff of this EP function. This function should consist of 2 staff members to fulfill the communication needs, at a minimum: 1 for the NRC and 1 for ORO notification and status updates. Additional communicators may be called upon as needed, and at the discretion of the licensee.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *To adequately support the elimination or extension of the two 60-minute responders, the licensee should show that two on-shift positions are identified to fill the 60-minute responder's role to "Notify licensee, State, local and Federal personnel [and] maintain communication." The licensee should show that these positions are not assigned other tasks that may prevent the timely performance of their assigned notification or communication functions, as specified in the emergency plan. The licensee should discuss how communication technologies employed by the proposed on-shift staff will support timely, effective, and reliable notifications. Additionally, the communications technologies should be referenced in the emergency plan to ensure that future changes are reviewed using the RG 1.219 change process, as they were used as the basis for the proposed change.*

Technology advancements using continuous live ERDS transmission and Emergency Response Notification for Incidents and Events (ERNIE) allows a streamlined process for NRC notification. Specifically, the technology advancements have enhanced the NRC Headquarters Operations Office (HOO) initial notification by using an electronic system that contacts the HOO.

The shift communicator is able to communicate immediately, not to exceed 1 hour, with the NRC HOO to provide real time information and an open line if desired. The NextEra control rooms are equipped with speaker and/or headset phones which aid the shift communicator in the performance of the communication function. The technical advancement allows personnel to perform the communication task without negatively impacting the performance of other emergency plan or operations responsibilities.

This technology allows for a single communicator to perform as the NRC communicator and have collateral duties throughout the additional 30 minutes until relieved by the TSC ENS Communicator.

NextEra has added a drill/exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for 90 minutes as a verification that the shift can perform their function with no assistance. This drill requires demonstration of classification, notification and PAR functions.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the NRC notifications aspect of the Communications function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the NRC notifications aspect of the Communications function.

3.3.5 **[Potential RIE 2-5]** TSC RP Coordinator at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the TSC RP Coordinator minimum staff ERO position that performs the Supervision of Radiation Protection Staff and Site Radiation Protection function.

This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *This function is important for effective emergency response to a radiological event because the management of RP resources, and the assistance this position provides the Emergency Coordinator, is crucial for response to radiological events. Radiological events can be very significant and constantly evolving, and require significant expertise in radiation and radiological consequences. The evaluation of radiological events, and the development of effective protective action recommendations, requires this expertise to support the Emergency Coordinator in making these decisions. This position is also responsible for the direction and protection of FMTs. The augmentation (relief) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed in the TSC.*

The TSC Radiation Protection Coordinator relieves the Shift Manager of the Supervision of Radiation Protection Staff and Site Radiation Protection function.

On-shift radiation protection personnel respond to abnormal radiological conditions, including Area Radiation Monitor and Process Radiation Monitor alarms, in accordance with RP procedures and report their actions and information to the Shift Manager, with little or no required supervision. Other on-shift radiation protection personnel emergency functions/responsibilities are performed without the need for direct supervision of the Shift Manager.

Technology and process enhancements in radiation protection including dosimetry and personnel monitoring have reduced the on-shift RP task burden by allowing operations and other non-RP shift personnel to perform most activities without the need for dedicated RP coverage. Thus, the need for the Shift Manager to coordinate RP coverage activities is significantly reduced.

The 90-minute response for OSC maintenance and radiation protection personnel credits the enhancement of the NextEra FLEX equipment and strategies. By accounting for FLEX equipment and strategies that eliminate or prolong the onset of core damage and any radiological release of activity the RP challenges are simplified and the need for a 60 minute radiation protection personnel response, and thus a 60 minute Radiation Protection Supervision response is diminished. Coordination of RP supervision response time with full TSC and OSC augmentation provides for a less complicated transition of responsibilities.

NextEra has added a drill/ exercise to the 8-year cycle to validate that an operating crew can perform an EP drill scenario without any assistance from the augmenting ERO for 90 minutes as a verification that the shift can perform their function with no assistance. This includes the Shift Manager directing and supervising RP functions and activities.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Supervision of Radiation Protection Staff and Site Radiation Protection function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan does not impact the capability or timeliness to perform the Supervision of Radiation Protection Staff and Site Radiation Protection function.

3.3.6 **[Potential RIE 2-6]** Radiation Protection Personnel at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the radiation protection personnel minimum staff ERO positions that perform the Radiation Protection function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for augmenting radiation protection personnel states that:

> *While not all Alert ECLs (or lower) have radiological consequences, licensees should develop their ERO staffing plans for a worst-case scenario from a radiological risk perspective, i.e., an event which results in the immediate (within 60-minutes) loss of 2 or more fission product barriers leading to significant and unknown radiological conditions. The augmentation (support) of this position should occur in two stages: within 60 minutes of an Alert ECL or greater, 3 additional qualified RP staff should be available, and within 90 minutes of an Alert ECL, or greater, an additional 3 additional qualified RP staff should be available, and both are typically staffed in the OSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Radiation protection personnel perform multiple roles during normal and emergency plant operations. These roles include access control, personnel monitoring, and dosimetry, in addition to HP coverage for repair and corrective actions, search and rescue, first aid, and firefighting during emergency response operations. Per the guidance in Table B-1 of NUREG-0654, there should be two augmented responders at 60 minutes for the major task of "Radiation Protection." To adequately support an extension in response timing of the two radiation protection 60-minute responders to 90 minutes, the licensee should show that the on-shift HP staffing includes as a minimum, four HP technicians in total for the site. The extra HP technicians are needed for in-plant protective actions for the other personnel added to the on-shift staffing to compensate for the extension in augmentation time, and to assess any off-site releases of radioactive materials. Additionally, the licensee request should demonstrate that on-shift HP technicians will be relieved of the need to perform access control, personnel monitoring, and dosimetry-related tasks, thereby freeing these personnel to cover vital response activities (e.g., HP coverage for repair and corrective actions, search and rescue, first aid, and firefighting). NRC staff will consider whether the basis for the justification includes the availability of installed area, process, airborne and effluent radiation monitors, automated systems and information technology solutions, and enhanced work processes. The licensee should include supporting tools and processes that will be considered such as portal monitors, self-alarming dosimeters, and automated access control systems for the RCA that maintain active radiation work permits that are readily available if an emergency is declared (e.g., the system verifies qualifications, dose margins, and access requirement).*

Three (3) RP Technician and two (2) RP Qualified Individual 90-minute minimum staff ERO positions report to the Lead OSC Supervisor and provides radiation protection support.

Through equipment, process, and training enhancements the on-shift staff can initially respond to Design Basis and Beyond Design Basis (BDB) events without the support of an augmented ERO. As codified by 10 CFR 50.155, NextEra FLEX equipment provides the on-shift staff with additional resources when installed plant equipment is lost or damaged. Generally, FLEX provides portable backup equipment onsite that can be used to supplement or replace installed plant equipment in maintaining long-term core cooling, spent fuel cooling, and containment integrity. Movement of FLEX equipment, including installation into plant systems and its operations (electrical, fluid, etc.) is performed by on-shift personnel.

Due to the availability of FLEX equipment, NextEra stations have diverse protection against loss of ECCS capability and other systems, which provides a basis for determination that no immediate ECCS repair and corrective actions are likely necessary for on-shift personnel prior to augmentation of maintenance personnel. The FLEX/BDB process and equipment, and the operating emergency procedures (EOP, AOP, etc.) are designed to be implemented with the minimum shift staff. By accounting for FLEX equipment and strategies that eliminate or prolong the onset of core damage and any radiological release of activity the RP challenges are simplified and the need for a 60 minute radiation protection personnel response is diminished.

The NEI 12-01 based staffing analysis performed for using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Radiation Protection function out to 6 hours for design basis and other ER related events.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Radiation Protection function out to 120 minutes for design basis and other ER related events.

3.3.7 **[Potential RIE 2-7]** Both Offsite FMTs at 90 Minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the FMT Technician/FMT Driver minimum staff ERO positions that perform the offsite field monitoring aspect of the Field Monitoring Teams function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

- *An offsite FMT should be staffed, consisting of a monitor and a driver. This offsite FMT is responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples as necessary (air, water, vegetation, etc.). This team should be staffed within 60-minutes of an Alert ECL, or greater, in order to be ready to respond to a radiological release, or to detect radiation in the field thus confirming and quantifying the release. This supports the applicable PAR decision-makers in developing effective PARs.*
    - *i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.*

iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.

- *Another offsite FMT should be staffed, consisting of a monitor and a driver. This offsite FMT is also responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples (air, water, vegetation, etc.). This team should be staffed within 90-minutes of an Alert ECL, or greater, in order to be ready to respond to a radiological release, or to detect radiation in the field thus confirming and quantifying the release. This supports the applicable PAR decision-makers in developing effective PARs. An additional 30-minutes in response is acceptable in that this second FMT is a backup to the first FMT, and while both FMTs are expected to respond to an event to better coordinate radioactive plume tracking action(s), allowing for an additional 30-minutes provides licensees some flexibility in staffing this ERO function without compromising the reasonable assurance finding in accordance with 10 CFR 50.47(a).*

  i. The monitor should be qualified to assess radiation and contamination levels, but need not be an ANSI qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

  iii. The driver should be knowledgeable about the vehicle and the proposed routes to be traversed.

RIS 2016-10 considerations for extension of ERO augmentation times states that:

Per the guidance of NUREG-0654, Table B-1, there should be four augmented responders at 60 minutes—two for off-site surveys, one for on-site surveys, and one for in-plant surveys. To adequately support an extension of these responders to 90 minutes, the licensee should show that the on-shift HP staffing includes a minimum of four HP technicians in total for the site. The licensee should demonstrate that two HP technicians, in excess of the number evaluated previously for extending the 30-minute responders, are available for in-plant protective actions for the other maintenance personnel that need to be added to the on-shift staffing to compensate for the extension in augmentation time for the major task of "Repair and Corrective Actions," and to perform surveys to assess any off-site release of radioactive materials.

NextEra off-site Field Monitoring Team augmentation is 90 minutes for both teams versus one team at 60 minutes and one team at 90 minutes.

FLEX equipment and strategies eliminate or prolong the onset of core damage and any radiological release of activity, and thus simplify the RP challenges and diminish the need for a 60 minute Field Monitoring Team response.

The 60 minute response basis for the first off-site Field Monitoring Team is to be ready to respond to a radiological release, or to detect radiation in the field for any ECL at an Alert or above. NextEra provides dedicated vehicles and equipment to facilitate the rapid deployment of personnel upon their arrival.

- Vehicles are maintained and fueled such that the Field Monitoring Team Driver is only required to perform a quick walk-around safety check before operating.
- Equipment/supply kit inventories are administratively maintained so that Field Monitoring Team personnel are not required to verify contents or perform lengthy equipment checks.

- Vehicles and equipment are stored together in a location that facilitates rapid deployment outside the Protected Area.
- Initial Field Monitoring Team deployment strategy locates personnel in downwind areas near the site boundary prior to a release that promptly supports EAL identification and PAR determination.

This pre-staging and readiness of Field Monitoring Team resources significantly reduces the time it takes personnel to be ready to respond to and identify a radiological release, thus also facilitating a 90 versus 60 minute augmentation response time.

3.3.8 **[Potential RIE 2-8]** OSC Supervisors at 90 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Lead OSC Supervisor and FIN Supervisor minimum staff ERO position that performs the Supervision of Repair Team Activities function. This change deviates from the current emergency plan 60-minute ERO response time requirement for the OSC Coordinator and Technical Specialist, and the NUREG-0654 R2 60-minute ERO response time guidance for the Lead OSC Supervisor.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *An Electrical Supervisor, a Mechanical Supervisor, an I&C Supervisor, and an RP Supervisor should be staffed within 90-minutes of an SAE ECL, or greater, and is typically staffed in the OSC. The OSC Supervisor can effectively manage the maintenance resources for the additional 30-minutes prior to the specific craft (mechanical, electrical, or I&C) respond, as demonstrated through drills and exercises, without compromising the staff's reasonable assurance finding in accordance with 10 CFR 50.47(a).*

FIN Supervisor

Moving the FIN Supervisor from 60 minutes (current emergency plan) to 90 minutes (proposed emergency plan) conforms to NUREG-0654 R2.

Lead OSC Supervisor

Operations staff are currently trained with basic troubleshooting skills for support of all EOP and abnormal response procedure actions. Supervision of these actions are performed by the Shift Manager and Unit Supervisors regardless of augmented ERO staffing. There is no need for the ERO to relieve the shift of this responsibility.

The Flex/B.5.b process and equipment, and the operating emergency procedures (EOP, AOP, etc.), are designed to be implemented by the minimum on-shift staff. Through technological and process enhancements, the on-shift staff can cope with an event (Design Basis and Beyond Design Basis) initially without an ERO as analyzed in detail for other non-EP regulatory requirements. With FLEX/B.5.b processes and equipment codified by 10 CFR 50.155 into plant response procedures, on-shift personnel have the capability for mitigating core damage from design or beyond design basis events.

Based on this, OSC personnel are used primarily for repair activities, with operations personnel focus on mitigating activities per the EOPs and other event procedures.

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Supervision of Repair Team Activities function out to 120 minutes.

Establishing the 90-minute augmentation requirement in the proposed emergency plan for the Lead OSC Supervisor does not impact the capability or timeliness to perform the Supervision of Repair Team Activities function.

3.3.9 **[Potential RIE 2-9]** OSC Craft at 90 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time of OSC craft minimum staff ERO positions that perform the Repair Team Activities function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *… a minimum number of maintenance personnel should respond to an event as part of the ERO, with more personnel available on an as-needed basis depending on the event. The augmentation (support) of the electrician and mechanic positions should occur within 60-minutes of an Alert ECL, (or greater), and is typically staffed in the OSC. The augmentation (support) of the I&C position should occur within 90-minutes of an Alert ECL, or greater, and is typically staffed in the OSC.*

RIS 2016-10 considerations for extension of ERO augmentation times states that:

> *Table B-1 of NUREG-0654 calls for the addition of one "Mechanical Maintenance," one "Rad Waste Operator," and an added "Electrical Maintenance" person within 60 minutes. To adequately support an extension of the response time for these responders, the licensee should demonstrate that the responsibilities of these positions can be covered with on-shift staff or earlier responders.*

Operations Emergency Operating Procedures have been developed to provide direction for a wide range of events described in the FSAR that uses operators to place the plant in a safe and stable condition. Maintenance personnel are not called upon in the response stage of an event as repair activities are taken after immediate EOP response actions.

Through equipment, process, and training enhancements the on-shift staff can initially respond to Design Basis and Beyond Design Basis (BDB) events without the support of an augmented ERO. As codified by 10 CFR 50.155, NextEra FLEX equipment provides the on-shift staff with additional resources when installed plant equipment is lost or damaged. Generally, FLEX provides portable backup equipment onsite that can be used to supplement or replace installed plant equipment in maintaining long-term core cooling, spent fuel cooling, and containment integrity. Movement of FLEX equipment, including installation into plant systems and its operations (electrical, fluid, etc.) is performed by on-shift personnel.

Due to the availability of FLEX equipment, NextEra stations have diverse protection against loss of ECCS capability and other systems, which provides a basis for determination that no immediate ECCS repair and corrective actions are likely necessary for on-shift personnel prior to augmentation of maintenance personnel. The FLEX/BDB process and equipment, and the operating emergency procedures (EOP, AOP, etc.) are designed to be implemented with the minimum shift staff. By accounting for FLEX equipment and strategies that eliminate or prolong the need for equipment and systems repair the maintenance challenges are simplified and the need for a 60 minute craft personnel response is diminished.

The NEI 12-01 based staffing analysis performed for using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Repair Team Activities function out to 6 hours for design basis and other ER related events

The NEI 10-05 based On-shift Staffing Analysis performed using the proposed emergency plan on-shift ERO identified no task overlap or overburden of the Repair Team Activities function out to 120 minutes for design basis and other ER related events.

3.3.10 **[Potential RIE 2-10]** Security Liaison at 90 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Security Liaison minimum staff ERO position that perform the Security function. This change deviates from the current emergency plan 60-minute ERO response time requirement and the NUREG-0654 R2 60-minute ERO response time guidance.

Deviation Justification: The NUREG-0654 R2 technical basis for the ERO augmentation guidance states that:

> *The licensee's Security Force is controlled and maintained by the licensee's NRC-approved physical security plan and does not need to be reflected in the Emergency Plan. However, the establishment of a Security Liaison position in the TSC is advantageous to ensure effective coordination between the security force and the ERO, particularly for events where offsite resources are necessary as well as for security related events and site personnel accountability. The augmentation (support) of this function should occur within 60-minutes of an Alert ECL, or greater, and is typically staffed by a Security Liaison in the TSC to coordinate security-related activities with that of the ERO.*

The site-specific Physical Security Plan (PSP) defines on-shift security staffing. This PSP staffing supports initial event response, either security or emergency plan related. The Security Shift Supervisor communicates directly with the Shift Manager informing them of security related actions and conditions. This communication does not change with the augmentation of the ERO.

Following the transfer of command and control, the Security Liaison position coordinates security and emergency related communications and response actions between the Site Emergency Director and the security force. The Security Liaison position provides communication and coordination resources that are not needed until the TSC and OSC are augmented at the 90 minute point in time.

3.3.11 **[Potential RIE 2-11]** JIC Staff at 90 minutes

The proposed emergency plan adds 30 minutes to the augmentation response time to the Site JIS Manager, Site JIS Coordinator and Remote JIS Manager minimum staff ERO position that perform the Media Information function. The proposed emergency plan also changes the JIS Technical Liaison from a 60 minute minimum staff ERO position to a non-minimum staff ERO position.

This change deviates from the current emergency plan 60-minute ERO response time requirement.

Deviation Justification: The proposed emergency plan assigns 60 and 90 minute JIC/JIS staff ERO positions capable of performing the Media Information function.

The NextEra Corporate Communications and key business units maintain a staff to operate a Joint Information System (JIS) for day-to-day operations and at all emergency classification levels. The NextEra Corporate Communications and key business units respond to media and public inquiries for abnormal conditions and events at any declared emergency classification level. The NextEra Corporate Communications and key business units coordinate with site management and ERO personnel, when staffed, to respond to media inquiries. Press releases are issued as appropriate from the NextEra Corporate Communications and key business units.

Establishing a 90 minute augmentation requirement for the Site JIS Manager, Site JIS Coordinator and Remote JIS Manager does not impact the capability or timeliness of the JIS to perform the Media Information function.

3.3.12 **[Potential RIE 2-12]** Removal of Primary Responders at UE

The proposed emergency plan does not provide for call out and reporting to the station at an Unusual Event for the position assuming the Command and Control, Emergency Classifications, Communications, Supervision of Radiation Protection Staff and Site Radiation Protection, Dose Assessments / Projections, and Media Information functions from the Control Room.

This change deviates from the current emergency plan Primary Responder ERO staff requirements.

Deviation Justification: The current emergency plan commitment to call in several ERO positions at an Unusual Event is no longer required. Review of licensing correspondence and commitments found no regulatory requirements for these actions. Changes in the EAL Scheme, communications systems and procedures ensure that the On-Shift staff can address any Emergency Plan actions required for events classified as Unusual Events. The Station and NextEra corporate offices maintain on-call duty personnel that may be contacted to assist the shift as needed. There is no guidance in NUREG 0654 R2 that calls for calling in personnel at the Unusual Event level. ERO members will still be notified that an Unusual Event has been declared, to be prepared if a higher classification is necessary and may be called in at the discretion of the Shift Manager.

3.4 ERO Task Analysis

No deviations were identified in the task analysis.

The ERO Task Analysis indicates, based on tasks assignments, that the capability to perform emergency plan functions will continue to be met without overburdening the ERO positions in the proposed emergency plan.

3.4.1 Major Process and Task Re-Assignment Changes

The major process and task re-assignments are associated with the following:

1) Activation of the TSC, OSC, EOF emergency response facilities occur at the Alert emergency classification level.
2) The remote Dose Assessor and three remote Engineering ERO positions requires a 60 minute response time. All other minimum staff ERO positions require a 90 minute response time.
3) The Command and Control function, along with all non-delegable responsibilities, are transferred from the Shift Manager to the Site Emergency Director and remain in the TSC throughout a declared emergency.
4) The Lead OSC Supervisor is also assigned the responsibilities of the OSC RP Supervisor.
5) The EOF provides dose assessment, offsite field monitoring and HPN communication, as well as material and logistics support to the Site Emergency Director for the overall site response.
6) The JIS function is provided by site and corporate response, with support from corporate communications personnel. The EOF and near site JIC remain located within the same near-site building.
7) IT support for emergency response will be provided by the normal NextEra IT 24-hour support process. This aligns with the practice currently used to support Critical Digital Assets during normal operations.

3.4.2 On-Shift ERO Positions

NUREG-0654 R2 revised the staffing plan to remove on-shift positions not directly associated with key function areas having emergency plan response task assignments.

On-shift ERO positions remaining in or added to the emergency plan are as follows:

- Shift Manager
- RPT/RPQI
- Security Shift Supervisor
- Shift Technical Advisor (as a collateral duty)
- Shift Classification Advisor (as a collateral duty)
- Shift Communicator (as a collateral duty)
- Shift Dose Assessor (as a collateral duty)

On-shift ERO positions removed the emergency plan are as follows:

- Reactor Operators
- Nuclear System Operators
- Fire Brigade/EMT

3.4.3 Minimum Augmenting ERO Positions

Minimum augmenting ERO positions remaining in or added to the emergency plan are as follows:

TSC

- Site Emergency Director
- TSC Classification Advisor (previously non-min staff Emergency Ops Manager)

- TSC RP Coordinator (previously HP Coordinator)
- ORO Communicator
- ENS Communicator (previously non-min staff)
- Reactor Engineer
- Electrical/I&C Engineer (previously Electrical Engineer)
- Mechanical Engineer
- Security Liaison (previously Security Leader)

OSC

- Lead OSC Supervisor (previously OSC Coordinator)
- FIN Supervisor (previously Technical Specialist Coordinator)
- RPT/RPQI (previously RPT)
- Electrician (previously Electrical Maintenance)
- I&C Technician (previously I&C personnel)
- Mechanic (previously Mechanical Maintenance)

EOF

- EOF Manager (previously EOF Coordinator)
- EOF Dose Assessor (previously Rad Dose Operator)
- Remote Dose Assessor (previously Dose Assessment Specialist)
- FMT Technician (previously Offsite Monitoring Personnel)
- FMT Driver (previously Offsite Monitoring Personnel Driver)
- EOF RP Coordinator (previously Dose Assessment Specialist)

JIC

- Site JIS Manager (previously Emergency News Manager)
- Site JIS Coordinator (previously JIC Support staff)
- Remote JIS Manager (previously Corporate JIC Manager)

3.4.4 Non-Minimum Augmenting ERO Positions (Support Positions)

Non-minimum augmenting ERO positions that remain in the implementing procedures will be notified at an Alert emergency classification level, at the same time as the minimum augmenting ERO. However, non-minimum augmenting ERO positions are not required to be present to activate the facility and do not relieve the on-shift ERO of any EP responsibilities. Non-minimum augmenting ERO positions have no augmentation time requirement.

Non-minimum augmenting ERO positions are being removed from the emergency plan, but retained in the Emergency Plan Implementing Procedures (EPIPs). The tasks assigned to the non-minimum augmenting ERO positions in the current emergency plan were reviewed against current NRC guidance to ensure tasks for key functional areas are retained and performed by minimum augmenting ERO positions within the proposed emergency plan.

The non-minimum augmenting ERO will continue to be available and respond to declared emergencies. The non-minimum augmenting ERO will be notified at the same time as the minimum augmenting ERO to respond to their respective Emergency Response Facilities (ERFs) at an Alert or higher Emergency Classification Level (ECL). As currently in place, the non-minimum augmenting ERO is not required to activate a facility.

Non-minimum augmenting ERO positions remaining in the implementing procedures are as follows:

TSC
- TSC Coordinator
- TSC ERF Communicator

OSC
- OSC ERF Communicator

EOF
- Administrative Coordinator (Previously Admin Services Coordinator)
- State Liaison
- Resource Coordinator

JIS/JIC
- JIS Technical Liaison (previously Technical Advisor)
- Media Coordinator

Additionally, NextEra station and corporate personnel can be called as "as needed" to support ERO response activities. These personnel will perform activities related to their normal jobs (such as engineering, procurement, maintenance planning, administration, etc.) and will be notified to support the ERO as warranted.

3.4.5 Eliminated Augmenting ERO Positions

ERO positions contained in the current emergency plan and implementing procedures that are not contained in the proposed emergency plan or implementing procedures are as follows:

TSC
- Operations Technician ..... **Minimum Staff, E-Plan**
- Maintenance Coordinator ..... **Minimum Staff,** EPIP
- Engineering Coordinator ..... **Minimum Staff,** EPIP
- Nuclear Safety Advisor ..... Non-minimum Staff, E-Plan
- Electrical Support Engineer ..... Non-minimum Staff, E-Plan
- I&C Support Engineer ..... Non-minimum Staff, E-Plan
- NSSS Support Engineer ..... Non-minimum Staff, E-Plan
- BOP Support Engineer ..... Non-minimum Staff, E-Plan
- TSC Work Control Supervisor ..... Non-minimum Staff, E-Plan
- TSC Logkeeper ..... Non-minimum Staff, E-Plan
- Assembly Area Coordinator ..... Non-minimum Staff, EPIP

OSC
- Radiation Controls Coordinator ..... **Minimum Staff, E-Plan**
- Chemistry Technician ..... **Minimum Staff, E-Plan**
- Chemistry Coordinator ..... **Minimum Staff,** EPIP
- OSC Work Control Supervisor ..... Non-minimum Staff, E-Plan
- Storekeeper ..... Non-minimum Staff, E-Plan
- MM/MV Work Planner ..... Non-minimum Staff, E-Plan
- ME/IC Work Planner ..... Non-minimum Staff, E-Plan
- Specialty Technical Assistants ..... Non-minimum Staff, E-Plan

EOF
- Response Manager ..... **Minimum Staff, E-Plan**

- ERO Technical Liaison ..... **Minimum Staff**, **E-Plan**
- Offsite Monitoring Coordinator ..... **Minimum Staff,** EPIP
- Technical Assistant ..... **Minimum Staff**, EPIP
- Licensing Coordinator ..... Non-minimum Staff, E-Plan
- Industry Liaison ..... Non-minimum Staff, E-Plan
- Materials & Logisitcs Coordinator..... Non-Minimum Staff, E-Plan
- Information Management Specialist..... Non-minimum Staff, E-Plan
- EOF Support Staff..... Non-minimum Staff, E-Plan
- HPN Communicator ..... Non-minimum Staff, E-Plan
- Dose Assessment Personnel ..... Non-minimum Staff, E-Plan
- Dosimetry Records Personnel..... Non-minimum Staff, E-Plan
- Environmental Analysts ..... Non-minimum Staff, E-Plan
- Radiation Assistant ..... Non-minimum Staff, E-Plan
- Offsite Monitoring Communicator ..... Non-minimum Staff, E-Plan
- Security Coordinator ..... Non-minimum Staff, E-Plan
- Security Personnel ..... Non-minimum Staff, E-Plan
- EOF Access Control Officer/Staff ..... Non-minimum Staff, E-Plan
- Training Center Staff ..... Non-minimum Staff, E-Plan

JIC/JIS

- Nuclear Services Support Staff ..... Non-minimum Staff, E-Plan

All tasks previously assigned to eliminated ERO positions that involve response actions for key functions continue to be performed by the remaining ERO positions in the proposed emergency plan.

3.5 On-Shift Staffing Analysis (OSA)

Regulatory Issue Summary (RIS) 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation, (Reference 6.13), states that an on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 should not be used to provide the primary basis to support the Technical Evaluation of a License Amendment Request (LAR). The OSA, however, may be utilized as part of the overall evaluation of staffing changes. The RIS states:

> *…an evaluation performed using only the guidance of NEI 10-05 does not satisfy the requirement to identify and evaluate changes to ERO augmentation timing or ERO augmentation staffing that reduces the capability to perform an Emergency Planning function.*

In conjunction with this License Amendment Request, NextEra has performed and documented an OSA per 10 CFR 50, Appendix E, Section IV.A.9 following the guidance of NEI 10-05, Assessment of On-Shift Emergency Response Organization Staffing and Capabilities, (Reference 6.14).

The results of the OSA conclude there are no task overlap or overburden of the on-shift staff; however, NextEra understands that the OSA comprises a select set of identified scenarios and is not used as the sole basis for the conclusions in the technical evaluation supporting this amendment request.

3.6 Approved to Current E-Plan Comparison Analysis

This comparison analysis identifies the differences between the approved emergency plan and the current emergency plan. The approved emergency plan consists of the following:

- The latest NUREG-0896, Supplement No. 9, Safety Evaluation Report (SER) was received in March 1990 (ML20012E283) for Revision 4 of the Seabrook Emergency Plan.
  - Historic revision 4 file contains all original sections
  - Historic revision 5 file contains updated sections updated based on NRC requests of clarification
- SER for implementation of NEI 99-01 Rev. 6 EALs approved in February 2017 (ML16358A411) contains latest NRC approved EAL scheme

The comparison was using the current plan as of October 2021 (Title page Revision 77). Current plan section revision numbers are provided in the Approved to Current Emergency Plan Comparison Analysis table.

The results of the comparison between the approved emergency plan and the current emergency plan revealed the following changes identified as potential RIEs.

3.6.1 **[Potential RIE 5-1]** Removed UE Response Requirement

Approved Emergency Plan	**Current Emergency Plan**
During an Unusual Event, primary responders will report to the Control Room. For emergency classifications of Alert or above, all responders (both primary and secondary) are notified, and all emergency response facilities activated.	During an Unusual Event, the Primary Responders will be notified by pager. Pager notification will be either a text message or numeric code. Primary Responders are the Site Emergency Director, Operations Technician, Technical Services Coordinator, Health Physics Coordinator, Response Manager, EOF Coordinator, ERO Technical Liaison and Emergency News Manager. (Protected: Ref. NRC Inspection Report 50-443/98-03)
8.3.2.1 Unusual Event Augmented Emergency Response Organization	1. Unusual Event Augmented Emergency Response Organization
During an Unusual Event, a limited number of essential ERO members, shown in Figure 8.2, report to their assigned Emergency Response Facility (ERF) or are notified to assist the on-shift staff with the emergency response. These individuals are referred to as Primary Responders. The STED will transfer overall management responsibility to the arriving Site Emergency Director. As part of this transfer, the Site Emergency Director will be fully briefed by the STED on the status of the station, accident mitigation and corrective actions taken, offsite notifications and the status of the ERO.	During an Unusual Event, a limited number of ERO members, shown in Figure 8.2, are notified to assist the on-shift staff with the emergency response. These individuals are referred to as Primary Responders. The STED will transfer overall management responsibility to the arriving Site Emergency Director. As part of this transfer, the Site Emergency Director will be fully briefed by the STED on the status of the Station, accident mitigation and corrective actions taken, offsite notifications and the status of the ERO.

Disposition

Current E-Plan, section 9.2.1: During an Unusual Event, the Site Emergency Director, Operations Technician, Health Physics Coordinator, Technical Services Coordinator and ERO Technical Liaison respond to the Control Room or Technical Support Center.

Per SEP#201605, SSREP Baseline Review – Summary and Disposition of Identified Issues, dated 5/5/2016:

Attachment 2

Primary responder positions that are instructed to report directly to the Control Room/TSC during an Unusual Event provide direct support to the Control Room staff and are intended to relieve the Control Room staff of emergency response actions not directly related to plant operations. They are instructed to report immediately upon notification and obtain emergency information first hand in the Control Room in order to minimize telephone calls into the Control Room. The Response Manager only is instructed by emergency response procedures to contact the Control Room by telephone to obtain information prescribed by procedure ER 1.7 in order to be able to brief executive management, emergency news personnel and offsite officials on emergency conditions and to coordinate response actions appropriately with them. The Response Manager, EOF Coordinator and Emergency News Manager do not provide direct support to Control Room staff during an emergency. These positions primarily contact, convey information to and coordinate response actions with external personnel and organizations.

The change that resulted in the three positions not reporting to the Control Room clarifies the response expectations for all eight primary responder positions. It provides direct support to the Control Room staff by the ERO during an Unusual Event while minimizing intrusions on Control Room staff attention to plant operational requirements. No reduction in effectiveness ensued from this change to primary responder reporting instructions, and the emergency plan as changed continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of 10 CFR 50 Appendix E.

3.6.2 **[Potential RIE 5-2]** Removed Laboratory Ability to Analyze Dosimetry

Approved Emergency Plan	**Current Emergency Plan**
The YNSD also maintains an Environmental Laboratory in Westboro, Massachusetts. Which will provide-24-hour service in the event of an emergency at Seabrook Station. The lab provides capability for emergency environmental sample and personnel dosimetry analysis.	More definitive analysis of environmental samples will be available from GEL Laboratories. GEL is capable of providing on a continuous basis a full spectrum of radio-analysis of environmental samples which includes identification of principal accident radio-nuclides and their evaluation against EPA dose guidelines for relocation and FDA derived intervention levels associated with consumption of contaminated foods

Disposition

Acceptable 54(q)'s developed for CRC1699 in RMD archive, for 2040, 2177 and 2353 in CRC database.

Qualified Environmental Analysts will be mobilized to report to the EOF to operate the gamma spectroscopy system previously used by RSCS. A minimum of two shifts of Nextera employees can be mobilized via ERO pager notification or callout. The response staff are trained to operate the gamma spectroscopy system using procedure CS 0926.20 and ER 3.3. Therefore, the planning functions identified [50.47 (b) (1), 50.47 (b) (9), and 50.47 (b) (15)] will be maintained.

Eliminating the High Pressure Ion chamber (HPIC) from the SSREP complies with the function 10CFR50.47(b)(9) and 10CFR50.47(b)(13) because handheld Ion Chamber Instruments used for direct gamma measurement are in service at all times at the EOF for Off Site Monitoring Team use during post plume direct gamma measurement surveys.

3.6.3 **[Potential RIE 5-3]** Removed Mobile Lab Ability to Analyze Dosimetry

Approved Emergency Plan	**Current Emergency Plan**
New Hampshire Yankee has full access to the WG Mobile Environmental Laboratory and the services of Yankee Environmental Lab in Westboro. Massachusetts, for emergency environments sample and personnel dosimetry analysis. The mobile equipment includes a four-wheel drive vehicle which can be outfitted with a gamma spectroscopy system with GeLi detector and data processing computer. A high-pressure ion chamber for direct gamma measurements can also be included. Also available on a mobile basis are a TLD processor and emergency TLD badge supply. The capabilities of the Westboro environmental lab constitute a full spectrum of analytical radio assay measurements on environmental sample media. A full service TLD processing capability also exists at the lab.	The EOF is equipped with a gamma spectroscopy system with High Purity Germanium detector and data processing computer. GEL Laboratories is available on a continuous 24 hour, seven days a week basis to provide a full spectrum of radio-analytical measurements on environmental sample media. 10.3 Each emergency response organization member reporting to the site will be provided a Dosimeter of Legal Record (DLR) badge and a self-reading dosimeter. Dose records based upon the results of these dosimeters will be maintained at each center. This information will be cross-referenced with and replaced by DLR badge data when available. Should the station exhaust its supply of DLR badges, the station DLR vendor, Mirion Technologies (GDS) will supply DLR badges. Offsite authorities responding onsite will be provided dosimetry.

Disposition

Per SEP#201605, SSREP Baseline Review – Summary and Disposition of Identified Issues, dated 5/5/2016:

Attachment 1

AREVA terminated its Westborough, MA, Environmental Laboratory and discontinued the business of supplying TLD badges and TLD support services. When AREVA discontinued providing TLD services in 2010, Seabrook Station contracted with Mirion Technologies for these services. Mirion Technologies is a national leader in dosimetry services to medical and industrial facilities. At the time of the transition at Seabrook Station, Mirion provided TLD services to other plants within the NextEra Energy nuclear fleet. Mirion services are procured for Seabrook Station currently via NextEra Energy corporate contract.

TLD data are not required to monitor radiological exposure of emergency personnel. Emergency response procedures provide for monitoring personnel radiological exposure using electronic dosimeters.

The change in vendor for supply and processing of TLDs does not reduce the effectiveness of the emergency plan and the emergency plan as changed continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of 10 CFR 50 Appendix E.

3.6.4 **[Potential RIE 5-4]** Hospital No Longer Treats Over Exposure

Approved Emergency Plan	**Current Emergency Plan**
8.8 Extensions of New Hampshire Yankee Emergency Response Organization 8.8.1 Local Services Arrangements have been made for the extension of organizational capabilities for handling emergencies. These include: 1) Transportation of injured personnel using the Town of Seabrook Fire Department ambulance service; 2) Treatment of radioactively	8.6 Extensions of Seabrook Station Emergency Response Organization 8.6.1 Local Services Arrangements have been made for the extension of organizational capabilities for handling emergencies. These include the following: 1. Transportation of injured personnel using the Town of Seabrook Fire Department ambulance service;

contaminated and injured personnel at Exeter Hospital and of over exposed personnel at Brigham and Women's Hospital in Boston, MA: and 3) Fire support services by the Town of Seabrook Fire Department and, if necessary, mutual aid. Letters of agreement with participating local service organizations are maintained in Appendix D to this plan.	2. Treatment of radioactively contaminated and injured personnel at Exeter Hospital and Wentworth-Douglass Hospital; and 3. Fire support services by the Town of Seabrook Fire Department and, if necessary, mutual aid. Letters of agreement with participating local service organizations are maintained in Appendix D to this plan.

Disposition

Brigham & Women's Hospital treatment services for overexposed personnel was terminated and replaced with agreements with Exeter and Wentworth-Douglass Hospitals. These hospitals will treat contaminated injured personnel or individuals with substantial radiation related injuries.

3.6.5 **[Potential RIE 5-5]** Removed State Agreement to Terminate

Approved Emergency Plan	**Current Emergency Plan**
9.3 Emergency De-escalation and Termination Criteria The emergency classification system defined in Section 5.0 of this plan provides-the flexibility needed to both escalate or deescalate the emergency level dependent upon the severity of the event. De-escalation criteria associated with making a transition between emergency classes will require (1) a review of plant parameters and/or offsite radiological conditions in conjunction with the pre-established EALs and (2) if the-EOF is activated, review and concurrence of New Hampshire Yankee and offsite authorities on any de-escalation.	9.3 Emergency De-escalation and Termination Criteria The emergency classification system defined in Section 5.0 of this plan provides the flexibility needed to both escalate or de-escalate the emergency level dependent upon the severity of the event. De-escalation criteria associated with making a transition between emergency classes will require a review of plant parameters and offsite radiological conditions in conjunction with the pre-established Emergency Action Levels (EALs).
7) State (*) officials agree with the Response Manager that station conditions require no further offsite protective action.	N/A

Disposition

ER 3.3, section 2.0, R66 lists Response Manager gaining NRC and State concurrence to terminate.

3.6.6 **[Potential RIE 5-6]** Reduced EMTs Requirements

Approved Emergency Plan	**Current Emergency Plan**
Specific station personnel have been trained as Emergency Medical Technicians (EMTs). A minimum of two Emergency Medical Technicians will be onsite at any one time to provide 24-hour emergency response coverage	Specific station personnel have been trained as Emergency Medical Technicians (EMTs). One Emergency Medical Technician, supplemented by at least one additional individual trained in first aid and cardio-pulmonary resuscitation, will be on site at any one time to provide 24-hour emergency response coverage.

Disposition

Per SEP#201605, SSREP Baseline Review – Deep Dive Template: R 35 per CRC1662. 50.54(q) in RMD archive file

Under CMP9 99-0008, Nuclear System Operators (NSOs) will be trained in basic first aid and cardio-pulmonary resuscitation (CPR). All five NSOs assigned to a shift will be trained in first aid and CPR. Per CMP 99-0008, at least one trained NSO will be required to respond automatically with the Fire Brigade Leader to a medical emergency on back shifts. In cases where total involvement of the Fire Brigade Leader in patient care is required, Incident Command can be transferred to a responding NSO.

Under CMP 99-0008, Seabrook Station will retain the capability to provide medical services to contaminated injured individuals. The onsite capability to provide first aid on a continuous basis until local support arrives will continue. Two on shift staff will continue to be available to provide rescue operations and first aid in accordance with NUREG-0654 Table B-1 and SSREP Figure 8.15. Implementation of CMP 99-0008 and the associated change to SSREP Section I 0.5.1 do not decrease the effectiveness of the SSREP.

3.6.7 **[Potential RIE 5-7]** Removed onsite ambulance requirement to be staffed during working hours

Approved Emergency Plan	**Current Emergency Plan**
NHY also maintains an ambulance onsite, with attending staff assigned during normal working hours (0700 to 1530 hours weekdays).	N/A

Disposition

Per SEP#201605, SSREP Baseline Review – Deep Dive Template:

Reference to the site ambulance added in R 5 has been deleted. [Note that both R 4 and current plan say that Seabrook Station staff will train ambulance personnel in rad protection considerations associated with contaminated personnel.]

R 54 CRC1950. 50.54(q) in RMD archive file.

Seabrook Fire Department will be used for medical transportation of injured and contaminated personnel. The commitment of the Seabrook Fire Department to provide emergency medical transportation for Seabrook Station is supported by a letter of agreement between Seabrook Station and the Seabrook Fire Department.

The Seabrook Fire Department is staffed 24 hours per day by trained emergency medical personnel. The Seabrook Fire Department is equipped with three (3) advanced life support ambulance units and one (1) rescue unit. The department is staffed by 22 full-time trained emergency medical technicians and 6 call fire personnel who are trained emergency medical technicians. The Seabrook Fire Department maintains 3 emergency medical technicians and 1 para-medic on shift 24 hours a day.

The Seabrook Fire Department is located 2.5 miles from the Seabrook Station protected area. The response time from the time of a call to Seabrook Fire to arrival of the Seabrook Fire ambulance at the protected area entrance is approximately 5-7 minutes.

The Seabrook Station site ambulance is a hold-over from the Seabrook Station construction era during the 1980s when the station maintained a complement of ten (10) trained emergency medical staff. The Seabrook Station emergency medical capabilities at that time exceeded that of the Seabrook Fire Department, principally because the Seabrook Fire Department was not capable at the time of providing emergency medical coverage for the large number of construction personnel working on the site. In the late 1990s, this condition was reversed. The Seabrook Fire Department emergency medical capabilities were significantly increased.

3.6.8 **[Potential RIE 5-8]** Removed Training Requirements for PI Personnel

Approved Emergency Plan	**Current Emergency Plan**
12.2.4 Emergency Public Information Personnel	12.2.1 Emergency Response Organization (ERO)

Approved Emergency Plan	Current Emergency Plan
Designated Emergency Public Information Personnel will annually receive training in the following areas 1) Emergency response concepts including emergency management, recovery management and emergency response personnel. 2) Offsite support agencies, organizations, and facilities. 3) Onsite support facilities and capabilities. 4) Media interface and conduct of operations. 5) Media Center facility, functions, and resources. 6) Federal, State and other public information emergency plans to ensure recognition of contacts and coordination. 7) Communication channels and notification scheme.	Training for ERO personnel is conducted in accordance with the ERO Training Program Description. Changes to this document shall be reviewed to ensure that (1) they do not decrease the effectiveness of the SSREP, the SSER or Seabrook Station emergency response capabilities, and (2) when implemented, the emergency preparedness program will continue to meet the applicable standards of 10 CFR 50.47(b) and the requirements of 10 CFR 50, Appendix E. (Protected: Ref. NRC Inspection Report 50-443/93-03)

Disposition

ERO Training requirements for the Emergency News Manager, Technical Advisors, and JIC Support Staff are listed in the ERO Training Program Description document.

Emergency Communication Team (ECT) training requirements are listed in the Nuclear Fleet Administrative Procedure, EP-AA-100-1010, Joint Information System.

3.6.9 **[Potential RIE 5-9]** Changed Procedure List Requiring ORG Review

Approved Emergency Plan	Current Emergency Plan
All changes to the emergency response procedures will be submitted to the Station Operations Review Committee (SORC) for review and approval before implementation. On an annual basis, written agreements with outside support organizations and government agencies will be evaluated to determine if such agreements are still valid. If not, then these agreements will be renewed and updated: otherwise, the agreements will be considered current. All telephone number listings associated with the station emergency response facilities will be reviewed quarterly and updated if necessary. Revisions will be made in accordance with current regulations and guidelines on a continuing basis, as applicable. Changes to the plan and procedures will be forwarded to all document control list recipients. (Protected: Ref. NRC IR 86-18(31))	Intent revisions to the SSREP and to SSER emergency plan implementing procedures ER 1.1, Classification of Emergencies; ER 1.2, Emergency Plan Activation; and ER 5.4, Protective Action Recommendations, shall be submitted to the On-Site Review Group (ORG) for review and approval before implementation. Intent revisions of other emergency plan implementing procedures contained in the SSER shall be reviewed by a station qualified reviewer per the Station Qualified Reviewer program and approved by the Emergency Preparedness Manager prior to implementation. On an annual basis, written agreements with outside support organizations and government agencies shall be evaluated to determine if such agreements are still valid. (Protected: Ref. FPL Common Letter L-2005-214) If not, then these agreements shall be renewed and updated; otherwise, the agreements shall be considered current. Telephone number listings associated with the Station emergency response facilities shall be reviewed quarterly and updated if necessary. Revisions shall be

	made in accordance with current regulations and guidelines on a continuing basis, as applicable. Revisions and changes to the plan and procedures shall be forwarded to all document control list recipients. (Protected: Ref. NRC IR 86-18[31])

Disposition

NextEra fleet procedure EP-AA-100-1007, Evaluation of Changes to the Emergency Plan, Supporting Documents and Equipment (10CFR50.54(Q)) implements Regulatory Guide 1.219, Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors. This rigorous process is specific to changes to the emergency plan, EPIPs or other emergency plan-related facilities and equipment. The On-Site Review Group (ORG) continues to review changes to the Emergency Plan and key procedures addressing Emergency Action Levels or Protective Action Recommendations. This process improves the ability to ensure changes made to EPIPs do not result in a reduction in effectiveness.

3.7 Current to Proposed E-Plan Comparison Analysis

This comparison analysis identifies the differences between the current SBK Emergency Plan (as of March 1, 2022, Title page Revision 77) and the proposed NextEra Common Emergency Plan and SBK Emergency Plan Annex.

Differences between the content of proposed NextEra Common Emergency Plan and SBK Emergency Plan Annex and the current SBK Emergency Plan were evaluated to determine whether any reductions in effectiveness were introduced by changes made.

The results of the comparison analysis between the current SBK Emergency Plan and the proposed NextEra Common Emergency Plan and SBK Emergency Plan Annex identified the following changes as potential RIEs.

3.7.1 **[Potential RIE 6-1]** Removal of Primary Responders at an Unusual Event

Current Emergency Plan	**Common Emergency Plan & Site Annex**
Primary Responders - The eight ERO positions that are staffed on a rotating duty basis. These positions are notified by pager, respond to any emergency, and include the Site Emergency Director, Operations Technician, Technical Services Coordinator, Health Physics Coordinator, Response Manager, EOF Coordinator, ERO Technical Liaison and Emergency News Manager. Primary Responders are also notified by the automated telephone notification service during back-shifts, weekends and holidays of an Alert or higher emergency classification level.	N/A
During an Unusual Event, the Primary Responders will be notified by pager. Pager notification will be either a text message or numeric code. Primary Responders are the Site Emergency Director, Operations Technician, Technical Services Coordinator, Health Physics Coordinator, Response Manager, EOF Coordinator, ERO Technical Liaison and Emergency News Manager. (Protected: Ref. NRC Inspection Report 50-443/98-03)	[CEP – D.3] 1.Unusual Event (UE) • Notification of ERO personnel. This is an information only notification and does not require activation of emergency facilities or response organizations. Any Emergency Response Facility (ERF) may be activated at the discretion of the Emergency Director. [CEP - F.1.c] NextEra sites use an automated ERO notification system to notify ERO members of a declared emergency. Multiple redundancies are incorporated such that activation of the system can be performed by computer or from any phone system, and operation can take place from more than one location.
1. Unusual Event Augmented Emergency Response Organization During an Unusual Event, a limited number of ERO members, shown in Figure 8.2, are notified to assist the on-shift staff with the emergency response. These individuals are referred to as Primary Responders. The STED will transfer overall management responsibility to the arriving Site Emergency Director. As part of this transfer, the Site Emergency Director	[CEP - D.3] 1. Unusual Event (UE) • Initial and follow-up event notification to the OROs and NRC. • Notification of ERO personnel. This is an information only notification and does not require activation of emergency facilities or response organizations. Any Emergency Response Facility (ERF) may be activated at

Current Emergency Plan	Common Emergency Plan & Site Annex
will be fully briefed by the STED on the status of the Station, accident mitigation and corrective actions taken, offsite notifications and the status of the ERO.	the discretion of the Emergency Director.
Upon assuming command, the Site Emergency Director will notify appropriate ERO members of the transfer. Independent of the arrival of the Site Emergency Director, the Unusual Event Augmented ERO will carry out its responsibilities as outlined in the appropriate position descriptions of Appendix A. These actions are directed towards termination of emergency conditions, assessment of onsite radiological conditions, technical support, coordination of Station activities with offsite authorities (State and Federal), and provision of medical and other requested assistance.	[CEP – E.1] 1. ERO Notification The Emergency Director will direct or perform notification of the ERO for all emergency classification levels. ERO personnel report to their assigned emergency response facilities as directed. In the event of a security threat, personnel may be instructed to respond to alternative facilities, or seek cover if on-site. [CEP – B.2] The Emergency Director ERO position has overall command and control of a declared emergency at a NextEra site. The Shift Manager is the individual who is on-shift at all times and assumes the role of Emergency Director upon emergency declaration. As Emergency Director, the Shift Manager has the authority and responsibility to immediately and unilaterally initiate any emergency actions, including providing protective action recommendations (PARs) to authorities responsible for implementing offsite emergency measures., The Shift Manager maintains overall command and control until relieved. [CEP – B.2.a] The Site Emergency Director will relieve the Shift Manager of overall Command and Control and the other key functions listed in Table B-1 at an Alert or higher emergency classification level. Non-delegable responsibilities include the following: • Event declaration • ORO and NRC Notification • PARs for the general public • Emergency Exposure (Dose limits and KI) Approving departures from license conditions per 10 CFR 50.54(x) transition from the Shift Manager to the Site Emergency Director upon transfer of command and control. [CEP - B.1.a] 2. Technical Support Center (TSC) A. Site Emergency Director • Organizational Interface and Coordination • Federal Assistance • Continuous Emergency Response Operations • Command and Control • Facility/Group Management and Supervision • Contact and Use of External Support

Current Emergency Plan	Common Emergency Plan & Site Annex
	Services • Integration of Offsite Agency Personnel in the ERF • NRC Notification and Communications • Event Classification • State and Local Event Notification • ERF Communications • Facility Activation • Backup and Alternative Facilities • Accident Detection and Assessment • OSC Team Priorities, Dispatch and Control • Site Assembly and Accountability • Site Evacuation • ERO Radiological Protection • Offsite Protective Action Recommendations • Emergency Exposure • Event Termination • Recovery
If the condition(s) that caused the Unusual Event completely clears prior to the Control Room notifying the Primary Responders, the STED may determine which, if any, of the Primary Responders need to report to the site. If not, these individuals will complete their assigned tasks on the following business day.	[CEP – B.2] The Emergency Director ERO position has overall command and control of a declared emergency at a NextEra site. The Shift Manager is the individual who is on-shift at all times and assumes the role of Emergency Director upon emergency declaration. As Emergency Director, the Shift Manager has the authority and responsibility to immediately and unilaterally initiate any emergency actions, including providing protective action recommendations (PARs) to authorities responsible for implementing offsite emergency measures.
Figure 8.2 Augmented Emergency Response Organization for Unusual Event	N/A
9.2.1 Unusual Event Response Upon the declaration of an Unusual Event, the STED will direct the notification of Station personnel (via the Station public address system) and the Primary Responders (via a digital paging system). The Primary Responders are shown in Figure 8.2, "Augmented Emergency Response Organization (ERO)-Unusual Event" and are the supplementary personnel designated to assist the on-shift staff in an Unusual Event. Offsite emergency organizations are notified and assistance from offsite fire, medical and law enforcement organizations will be requested, as necessary.	[CEP – D.3] 1.Unusual Event (UE) • Notification of ERO personnel. This is an information only notification and does not require activation of emergency facilities or response organizations. Any Emergency Response Facility (ERF) may be activated at the discretion of the Emergency Director. [CEP - F.1.c] NextEra sites use an automated ERO notification system to notify ERO members of a declared emergency. Multiple redundancies are incorporated such that activation of the system can be performed by computer or from any phone system, and operation can take place from more than one location. [CEP – A.1.a] When the emergency response facilities are staffed the augmenting ERO relieves the on-shift personnel of emergency response

Current Emergency Plan	Common Emergency Plan & Site Annex
	functions not directly associated with unit operations. NextEra overall responsibilities for event response are as follows: • Recognize, classify and declare an emergency. • Notify appropriate NextEra personnel, federal, and OROs. • Request additional support from federal, ORO, and private organizations. • Establish and maintain effective communications with onsite and offsite entities. Continuously assess the consequences of the accident, and periodically communicate response status and assessment information to the appropriate groups and authorities. • Take protective actions onsite and recommend protective actions to offsite authorities. • Monitor and control radiation exposure of personnel responding during an emergency. • In conjunction with OROs, provide emergency information to the media and public through periodic media briefings and media statements. [CEP – C.2.d] Local support organizations may be called to assist onsite for events requiring firefighting, medical, or law enforcement. Immediate assistance with firefighting, medical, and law enforcement at the sites is initiated using pre-established site specific communications systems.
During an Unusual Event, the Site Emergency Director, Operations Technician, Health Physics Coordinator, Technical Services Coordinator and ERO Technical Liaison respond to the Control Room or Technical Support Center. The Site Emergency Director will relieve the STED of emergency response command and control duties. The Response Manager will obtain a briefing from the Site Emergency Director or Short Term Emergency Director prior to or after reporting to an appropriate onsite or offsite reporting location. The Response Manager will notify Seabrook Station executive management. The EOF Coordinator and the Emergency News Manager will obtain a briefing from the Response Manager. The Emergency News Manager reports to the Seabrook Station site to coordinate public information needs.	[CEP – D.3] 1.Unusual Event (UE) • Notification of ERO personnel. This is an information only notification and does not require activation of emergency facilities or response organizations. Any Emergency Response Facility (ERF) may be activated at the discretion of the Emergency Director. [CEP - F.1.c] NextEra sites use an automated ERO notification system to notify ERO members of a declared emergency. Multiple redundancies are incorporated such that activation of the system can be performed by computer or from any phone system, and operation can take place from more than one location.
The response required as a result of this declaration varies according to the specific event, but a general summary of actions taken is described below: 1. On duty operating and selected Station	[CEP – E.1] 1. ERO Notification The Emergency Director will direct or perform notification of the ERO for all emergency classification levels. ERO personnel report to

Current Emergency Plan	Common Emergency Plan & Site Annex
personnel will assume the duties specified in Section 8.0; 2. The STED will ensure that New Hampshire State Police and Massachusetts Emergency Management Agency have been notified. In turn, the offsite warning points will notify the appropriate authorities designated in their plans; 3. The STED will ensure that the NRC has been notified and that a communication channel remains open until the condition has been terminated (unless permission is granted to establish a callback time); 4. The STED will direct the activities of the On-Shift Emergency Response Organization; 5. The STED will ensure activation of the digital paging system to initiate emergency notification; 6. The Primary Responders will respond as discussed above; 7. Should it be necessary, the Site Emergency Director would direct additional notifications by telephone to augment the existing ERO to the level required by the nature of the emergency condition; 8. If necessary, appropriate emergency medical, fire department or law enforcement agencies will be notified and requested to respond; 9. The Emergency News Manager will direct preparation of public information releases appropriate to the event; and 10. The Site Emergency Director will close out the event with a notification to offsite authorities or escalate to a more severe class.	their assigned emergency response facilities as directed. In the event of a security threat, personnel may be instructed to respond to alternative facilities, or seek cover if on-site. [CEP – B.2] The Emergency Director ERO position has overall command and control of a declared emergency at a NextEra site. The Shift Manager is the individual who is on-shift at all times and assumes the role of Emergency Director upon emergency declaration. As Emergency Director, the Shift Manager has the authority and responsibility to immediately and unilaterally initiate any emergency actions, including providing protective action recommendations (PARs) to authorities responsible for implementing offsite emergency measures., The Shift Manager maintains overall command and control until relieved. [CEP – B.2.a] The Site Emergency Director will relieve the Shift Manager of overall Command and Control and the other key functions listed in Table B-1 at an Alert or higher emergency classification level. Non-delegable responsibilities include the following: • Event declaration • ORO and NRC Notification • PARs for the general public • Emergency Exposure (Dose limits and KI) Approving departures from license conditions per 10 CFR 50.54(x) transition from the Shift Manager to the Site Emergency Director upon transfer of command and control. [CEP - B.1.a] 2. Technical Support Center (TSC) A. Site Emergency Director • Organizational Interface and Coordination • Federal Assistance • Continuous Emergency Response Operations • Command and Control • Facility/Group Management and Supervision • Contact and Use of External Support Services • Integration of Offsite Agency Personnel in the ERF • NRC Notification and Communications • Event Classification • State and Local Event Notification • ERF Communications • Facility Activation • Backup and Alternative Facilities

Current Emergency Plan	Common Emergency Plan & Site Annex
	• Accident Detection and Assessment • OSC Team Priorities, Dispatch and Control • Site Assembly and Accountability • Site Evacuation • ERO Radiological Protection • Offsite Protective Action Recommendations • Emergency Exposure • Event Termination • Recovery [CEP – M.3] The Emergency Director will inform the ERO, OROs, and NRC upon exiting the state of emergency and either returning to normal organizational control or entering recovery.

Disposition

The Common Emergency Plan (CEP) no longer differentiates by Primary, Subject to Call and Secondary responders. The CEP identifies minimum staff positions, non-minimum staff positions will be identified in the implementing procedures. Refer to Analysis #1 and Analysis #2 for a detailed comparison evaluation of the ERO positions, functions/tasks, and response time commitments of the CEP.

The previous commitment in the current Emergency Plan to call in several ERO positions at an Unusual Event is no longer required. Review of licensing correspondence and commitments found no regulatory requirements for these actions. Changes in the EAL Scheme, communications systems and procedures ensure that the On-Shift staff can address any Emergency Plan actions required for events classified as Unusual Events. The Station and NextEra corporate offices maintain on-call duty personnel that may be contacted to assist the shift as needed. There is no guidance in NUREG 0654 R2 that calls for calling in personnel at the Unusual Event level. ERO members will still be notified that an Unusual Event has been declared, to be prepared if a higher classification is necessary and may be called in at the discretion of the Shift Manager.

3.7.2 **[Potential RIE 6-2]** Reduced First Aid Responder Level

Current Plan	Proposed Common Plan
10.5 Aid to Affected Personnel 10.5.1 Medical Treatment Specific station personnel have been trained as Emergency Medical Technicians (EMTs). One Emergency Medical Technician, supplemented by at least one additional individual trained in first aid and cardio-pulmonary resuscitation, will be on site at any one time to provide 24-hour emergency response coverage.	[CEP – O.1] 7. First Aid – Personnel assigned as first aid responders maintain qualifications equivalent to Red Cross Standard First Aid techniques.

Disposition

Under CMP 99-0008, Nuclear System Operators (NSOs) will be trained in basic first aid and cardio-pulmonary resuscitation (CPR). All five NSOs assigned to a shift will be trained in first aid and CPR. Per CMP 99-0008, at least one trained NSO will be required to respond automatically with the Fire Brigade Leader to a medical emergency on back shifts. In cases where total involvement of the Fire Brigade Leader in patient care is required, Incident Command can be transferred to a responding NSO.

Under CMP 99-0008, Seabrook Station will retain the capability to provide first aid to contaminated injured individuals. The onsite capability to provide first aid on a continuous basis until local support arrives will continue. Two on shift staff will continue to be available to provide rescue operations and first aid.

3.7.3 **[Potential RIE 6-3]** Reduced ERO Testing Periodicity

Current Plan

2. Communication Drills

To ensure that emergency communications equipment is operable, communication drills shall be conducted as outlined below. Included in the scope of these drills is the aspect of understanding message content. Paragraphs c, d, and g below may be performed as part of annual combined functional drills and the required biennial exercise.

a. Communication channels with State governments within the plume exposure pathway shall be tested monthly;
b. The pager system for the notification of the Primary Responders of the Emergency Response Organization (ERO) shall be tested weekly;
c. Data transmission capability between Station emergency centers shall be tested annually;
d. EOF communications to State Emergency Operation Centers and to Station field assessment teams shall be conducted annually;
e. Communications between the Control Room and the NRC Headquarters Operations Center shall be tested weekly or as otherwise directed by the NRC;
f. Communications between the EOF, TSC and the NRC Headquarters Operations Center shall be tested monthly or as otherwise directed by the NRC; and
g. Notification of the Secondary Responders of the ERO via the automated telephone notification service shall be tested at least annually.

Proposed Common Plan

[CEP – N.4.f]
Each NextEra site will conduct communications drills once per calendar year.
Communications tests described in Element F.3 can be performed as drills provided they include the aspect of understanding the content of messages.
[CEP – F.3]
Communication systems testing is accomplished in accordance with Table F-1.

Table F-1: Communication System Testing Requirements

Communication System	Testing Requirement
ORO Notification System	Monthly (a)
NRC FTS (ENS) Network	Monthly (b)
ERDS	Verify Transmission Quarterly
ERO Notification System	Per Elements N.4.h and N.4.i
Field Monitoring Teams Communication	Annually (a)
Telephone System	Frequent Use (c)
Station Radio System	Frequent Use (c)
Station PA System	Frequent Use (c)
ANS	per site specific ANS Design Report

(a) Test credit may be given by successful use in a drill.
(b) NRC ENS in the Control Room is Frequent Use. TSC and EOF require monthly testing.
(c) Communication systems that are listed with a testing frequency of “Frequent Use” indicate that the associated equipment is normally used at a sufficient high regularity, such that separate additional testing is not needed.
[CEP – N.4.i]
The NextEra ERO notification is an all-call process. Each NextEra site will conduct an off-hours unannounced ERO call-in drill biennially to verify each minimum staffing ERO position meets the required Table B-1 response time.

	The scope of the off-hours unannounced ERO call-in drill will require collection of the ERO notification system report which documents response within the required time. Completion of an Element N.4.h off-hours unannounced ERO report-in drill satisfies the requirements of the off-hours unannounced ERO call-in drill in this element. The Off-Hours Call-In Drill requirement may be satisfied by an actual event provided the objectives are evaluated and documented in a critique report

Disposition
Notification of weekly primary responders and annual secondary responders pager test removed as the Common Emergency Plan (CEP) no longer differentiates by Primary, Subject to Call and Secondary responders. The CEP identifies minimum staff positions, non-minimum staff positions will be identified in the implementing procedures.
Neither 10 CFR 50.47, Appendix E, NUREG-0654 R1 or R2 contain criteria requiring ERO pager testing periodicity to be contained in the emergency plan.
The ERO notification system is tested several times a year during the conduct of drills and exercises. The ability to augment the on-shift response capabilities within a short period of time is demonstrated and evaluated during the drills and exercises.
The call-in drills collect response time estimates from the entire ERO. This process validates all ERO members' response time each time it is used.
The current Emergency Plan ERO pager tests are not required to comply with the 10 CFR 50.47 and Appendix E regulations.

3.7.4 **[Potential RIE 6-4]** Reduced Hospital and Ambulance Drill Participation and Periodicity

Current Plan	**Proposed Common Plan**
12.1.2 Emergency Plan Drills 4. Medical Drills To evaluate the response and training of the Station medical response and offsite hospital personnel, a medical drill shall be conducted annually involving a simulated contaminated individual. Although the Station medical response may be tested more frequently, the offsite response portion of medical drills may be performed as part of the biennial exercise.	[CEP – N.4.a] Each NextEra site will conduct an onsite simulated medical drill once per calendar year. The scope of the emergency medical drill will include a simulated on-site injured and contaminated individual and medical/ first aid treatment, including contamination control. Emergency Medical Drill offsite participation and periodicity for support Hospital and Ambulance services are performed in accordance with the 42 CFR 482.15 regulations and are not included in the scope of the station medical drills.

Disposition
The hospitals are accredited by The Joint Commission in compliance with 42 CFR 482.15, Condition of Participation: Emergency Preparedness. The regulations and accreditation require the hospitals to maintain an emergency plan and that the emergency preparedness program include, but not be limited to, the following elements (excerpts from the 42 CFR 482.15 regulation):

(a) Emergency plan. The hospital must develop and maintain an emergency preparedness plan that must be reviewed, and updated at least every 2 years. The plan must do the following:

(1) Be based on and include a documented, facility-based and community-based risk assessment, utilizing an all-hazards approach.

(2) Include strategies for addressing emergency events identified by the risk assessment.

(4) Include a process for cooperation and collaboration with local, tribal, regional, State, and Federal emergency preparedness officials' efforts to maintain an integrated response during a disaster or emergency situation.

(b) Policies and procedures. The hospital must develop and implement emergency preparedness policies and procedures, based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, and the communication plan at paragraph (c) of this section. The policies and procedures must be reviewed and updated at least every 2 years.

(d) Training and testing. The hospital must develop and maintain an emergency preparedness training and testing program that is based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, policies and procedures at paragraph (b) of this section, and the communication plan at paragraph (c) of this section. The training and testing program must be reviewed and updated at least every 2 years.

(1) Training program. The hospital must do all of the following:

(i) Initial training in emergency preparedness policies and procedures to all new and existing staff, individuals providing services under arrangement, and volunteers, consistent with their expected role.

(ii) Provide emergency preparedness training at least every 2 years.

(iii) Maintain documentation of the training.

(iv) Demonstrate staff knowledge of emergency procedures.

(v) If the emergency preparedness policies and procedures are significantly updated, the hospital must conduct training on the updated policies and procedures.

(2) Testing. The hospital must conduct exercises to test the emergency plan at least twice per year. The hospital must do all of the following:

(i) Participate in an annual full-scale exercise that is community-based; or

(A) When a community-based exercise is not accessible, conduct an annual individual, facility-based functional exercise; or.

(B) If the hospital experiences an actual natural or man-made emergency that requires activation of the emergency plan, the hospital is exempt from engaging in its next required full-scale community-based exercise or individual, facility-based functional exercise following the onset of the emergency event.

(ii) Conduct an additional annual exercise that may include, but is not limited to the following:

(A) A second full-scale exercise that is community-based or an individual, facility-based functional exercise; or

(B) A mock disaster drill; or

(C) A tabletop exercise or workshop that is led by a facilitator and includes a group discussion, using a narrated, clinically-relevant emergency scenario and a set of problem statements, directed messages, or prepared questions designed to challenge an emergency plan.

(iii) Analyze the hospital's response to and maintain documentation of all drills, tabletop exercises, and emergency events, and revise the hospital's emergency plan, as needed.

Therefore, the hospitals use an all-hazards approach to determine the community-risk and priorities of its emergency response preparation (training, drills, etc.) on the risk / priority. Maintaining the Contaminated Medical Emergency Drill annual frequency, places a false priority /risk and circumvent the 42 CFR 482.15 community all-hazards regulations for the hospitals.

Ambulance services are under different regulations (primarily state regulations) but serves the same demographic and has similar community-risk and priority profile. Per the 42 CFR 482.15 regulation, the hospital's emergency plan includes cooperation and collaboration of local emergency preparedness officials and an annual full-scale community-based drill. CEP Section O.1.a, NextEra will continue to offer emergency response training annually to the ambulance service(s). Training includes basic radiation protection, the notification process for their organization, and their organization's expected role.

This change removes the requirement for hospital and ambulance participation in the annual emergency medical drill. The proposed CEP revision retains all other previous Offsite Response Organization (ORO) arrangements including offered annually training, offered participation in drills and pre-arrangements documented in Letters of Agreement (LOAs).

NextEra stations will continue to meet the requirements of 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, Section IV.F.1. NextEra stations will continue to have arrangements with the OROs; annual training will be offered, and hospital participation in the emergency medical drill will be coordinated under 42 CFR 482.15 requirements. NextEra stations will participate in the hospital's community risk assessments to ensure the station's is properly risk evaluated and prioritized.

On-site emergency medical drill and training will be provided annually for the station's ERO. The training process/program will determine the need for additional on-site drills included in the training.

This drill participation arrangement was discussed with the OROs (hospitals and ambulance providers) and their concurrence is documented in Enclosure 10.

The 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations do not specify a frequency to perform the emergency medical drill. The annual frequency is specified in NUREG-0654 and provides the NRC approved guidance how to comply with the regulations. Licensees "may voluntarily use the guidance in the document to demonstrate compliance" with the NRC regulations or provide "methods or solutions that differ from those described." The alternate method of basing the drill frequency on the ORO community-risk assessment is appropriate and meets the intent of the planning standards.

The change to the emergency medical drill scope retains the annual requirement for the station while allowing the hospital and ambulance service the ability to participate under and within their regulatory requirements. This should provide a commitment which the NRC can evaluate as an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations.

3.7.5 **[Potential RIE 6-5]** Removed EP Initial Training of Non-ERO Personnel

Current Plan	**Proposed Common Plan**
12.2.3 Station Personnel with No ERO Assignment Station personnel with no ERO assignment shall be trained in their proper response to an emergency during Plant Access Training. This training shall be given on an annual basis.	N/A

Disposition
R1 and R2 of NUREG-0654 do not contain criteria requiring a description of training for non-ERO/non-essential personnel within the emergency plan). No regulation, other guidance document or inspection procedure calls for a description of non-ERO general employee training to be contained in the emergency plan. General industrial safety information, which includes awareness and expectations to normal, off-normal and emergency situations is provided to all personnel given unescorted access onto the site. General employee training for unescorted site access includes topics of safety conscious work environment (SCWE), stormwater pollution prevention (SWPP), spill prevention and control, hearing conservation, emergency plan, and fire extinguishers and is presented in the NANTel Generic Awareness and NextEra site specific site access training courses. Site specific general awareness training scope (industrial and emergency condition related) is governed and controlled outside the emergency plan. Emergency plan awareness content review in general employee training by personnel knowledgeable of the emergency plan is provided in document controls processes and procedures. These processes and procedures are also applicable to changes to made by other non-EP departments that could potentially impact the emergency plan.

3.7.6 **[Potential RIE 6-6]** Reduced ERO Roster Review Periodicity from Quarterly to Semiannually

Current Plan	**Proposed Common Plan**
12.3 Review and Updating of Plan and Procedures If not, then these agreements shall be renewed and updated; otherwise, the agreements shall be considered current. Telephone number listings associated with the Station emergency response facilities shall be reviewed quarterly and updated if necessary. Revisions shall be made in accordance with current regulations and guidelines on a continuing basis, as applicable.	[CEP – P.10] The NextEra emergency communications directory contains select contact numbers for ORO and support organizations identified in the emergency plan and implementing procedures. The ERO call-out system contains comprehensive ERO contact information. NextEra ERO contact information is verified semi-annually and updated as needed. Facility and support contact information in the emergency communications directory is verified annually and updated as needed.

Disposition
Due to the local relationships and the advancement of technology, the quarterly emergency telephone directory review is being changed to a semi-annual review. Historically, little change between quarters has occurred such that changing to a semi-annually review would have little impact on accuracy. With cellular phones being the primary notification tool for ERO personnel, there is not nearly as many changes of phone numbers. In the past, if an individual moved their residence, their phone number likely did not travel with them as the numbers were tied to geographical regions within the city or town they were moving (land lines). With cell phones and changes to long distance billing, many people keep their same cell phone number as they move, whether across town or across country. Most businesses or other support contacts that are listed in emergency telephone directory are established entities that do not change their business lines often enough to warrant a check every quarter. In addition, the internet is now the primary location to obtain business numbers, with these numbers readily available fewer numbers are required to be maintained in EP phone lists.

3.8 Proposed E-Plan to NUREG-0654 R2 Criteria Comparison Analysis

Each element of NUREG-0654 R2, is clearly stated in the proposed NextEra Common Emergency Plan and SBK Emergency Plan Annex. The proposed plan/annex deviates from the following NUREG-0654 R2 elements:

3.8.1 [Potential RIE 7-1] Added Allowance for Remote Response of Engineering and Dose Assessment Function

NextEra Common Emergency Plan	NUREG-0654 R2
B.1.b The remote emergency response organization (ERO) positions are defined. Resources necessary to perform the functions and tasks assigned to the remote response positions, as well as a backup capability, are described.	N/A
The NextEra ERO includes remote response positions. Remote response positions are not required to physically manipulate plant equipment or take other physical actions at the site. Remote response positions are provided the resources to collaborate with ERO personnel in their assigned emergency facility. These resources provide; • the ability to communication audio/visually between emergency facility and the remote responder. • the ability to access procedures, information and data. • the ability to share screens/documents. ERO members responding remotely to an emergency are capable of performing all functions and tasks assigned to their position, including support provided to other ERO members, as described in the emergency plan and implementing procedures. These positions support the on-shift staff prior to activation of the TSC and EOF. 1. Remote Responders Assigned to the TSC (refer to Section B.1.a.2) The Reactor Engineer, Electrical/I&C Engineer, and Mechanical Engineer ERO minimum staff positions are remote responders assigned to the TSC. NextEra provides a corporate facility that provides the equivalent resource capability as a backup for the remote ERO engineering positions. 2. Remote Responders Assigned to the EOF (refer to Section B.1.a.4) The Remote Dose Assessor ERO minimum staff position is assigned to the EOF. NextEra provides a corporate facility that provides the equivalent resource capability as a backup for the Remote Dose Assessor position. Additionally, the Shift Dose Assessor from another NextEra site are capable of supporting the affected site as a backup to the Remote Dose Assessor position.	

Disposition

Note – JIS by definition is a remote response process acknowledged by the NRC. It is not included in this disposition of NextEra remote ERO responders.

The Common Emergency Plan includes the following remote response ERO positions:

- Reactor Engineer
- Mechanical Engineer
- Electrical/I&C Engineer
- Remote Dose Assessor

Disposition

Title 10 of the Code of Federal Regulations (10 CFR) 50.47 (b)(2) requires that an onsite emergency plan meet the following standard:

> "On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified."

Providing the ability for specific augmenting ERO positions to participate remotely can enhance overall response efficiency through:

- Safer and faster response by ERO members since travel to an Emergency Response Facility (ERF) during various times, weather conditions, etc. is not necessary.
- Expanding the pool of potential ERO members with individuals possessing desirable expertise at the station and throughout NextEra fleet.
- Providing greater ERO response since multiple ERO members in a position can be called upon to provide support.

The following key considerations were evaluated when determining the remote ERO response positions and capability:

- Identification of ERO positions with assigned functions and tasks that can be successfully performed in a remote response environment. The position has capability of completing all functions and tasks assigned to the position, including support provided to other ERO members, as described in the emergency plan and implementing procedures.
- Maintaining compliance with regulatory requirements applicable to the ERO.
- Evaluating changes to the approved and current site Emergency Plans and to the guidance in NUREG-0654 R2.
- The impact that a remote response could have on the position's ability to effectively function within the reporting facility or team (e.g., a dose assessment team).
- The ERO response actions in various classified emergency events (example; Hostile Action event or severe weather).
- Overall enhancement and improvements to the ERO response and emergency plan.

The remote ERO positions are not required to respond to a physical location within the activation time, but if desired or necessary there are physical response locations available such as at the station, corporate facility, or NextEra administrative offices.

Remote ERO positions can function from various locations based upon meeting a prompt response time and providing a depth of available communications and information resources. If a remote ERO member cannot perform the function due to personal or technology issue, standard / current processes would be utilized to replace the ERO member as soon as possible or the remote ERO member can relocate to resolve any technical issues.

Remote ERO personnel are capable of communicating with response and support personnel in the applicable ERF, or other locations, through pre-established communication channels. The remote ERO personnel will have various communication mediums (phones, standard conference bridges, internet, video conferencing software, and/or any additional technology advancements) available to them to effectively interface and communicate. The communication medium allows the remote ERO member to:

- Report virtually to an ERF leadership position
- Obtain directions based on the priorities of the event
- Obtain information necessary to perform assigned functions and tasks
- Provide necessary information to others

The pre-established communication channels possess the following features:

- Audio/visual communication between users
- Ability to share screens/documents
- Ability to grant access to other ERO members and ORO agencies, if desired
- Transfer capacity to handle any reasonably expected data and communication needs

Disposition

- System being highly reliable
- Ability of software vendor or NextEra Information Technology (IT) department to push out software updates and notifications of system outages

NextEra has a robust plant process computer system that is used to perform monitoring of each station as a matter of core business. This computer system is available to NextEra staff 24/7 locally and remotely to review plant performance from any location. If detailed in-field information is needed, the information exchange will rely on currently established practices of craft workers and operations staff providing photos of what is seen in the field. This will allow for solid analysis and judgement to be used in response recommendations. Cell phone technology advancements have allowed communications from the field to be vocal and visual (pictures and video); this common practice is used daily to communicate to the Control Room and/or Engineering staff. As necessary, this common practice can be used for any ERO position which could benefit from pictures/video to and from the field, example applications:

- Pictures of a valve can be sent to the Engineer from an in-field Operator.
- Maps can be sent to the FMTs from the Remote Dose Assessor.

The reliability of the computer data systems provided at the corporate and station locations utilized for remote ERO response is similar to the stations' Emergency Response Facilities. The reliability of non- NextEra remote locations (home, etc.) is dependent upon local internet service, but during the Covid-19 crises NextEra staff were able to work remotely effectively and efficiently. It has become a common practice to communicate, conduct multi-person meetings, share documents while working remotely. Personnel utilize the local internet service and cell phone hot spots to connect to the internet. If all else fails, personnel would respond to the NextEra corporate or station location/facility to perform the function remotely. In essence, performing work from remote locations has become a common practice and used daily by the staff.

The remote ERO positions are designated and assigned based on the established ERO selection and qualification process of NextEra. The process contains prerequisites and training to ensure competent personnel are responding to the emergency. The Systematic Approach to Training (SAT) process will be used to determine the initial and continuing training requirements. The training analysis will not be limited or focused on the remote ERO responders but also address the ERO members interfacing with the remote responders.

NRC Inspection Procedures (IP) do not currently identify specific remote ERO response performance evaluation criteria. Thus, performance evaluation would be based upon the Risk-Significant Areas (IP 71114 Section 03.04) and Additional Areas for Inspection (IP 71114 Section 03.06) similar to what is done for Field Monitoring Team and JIS response activities, which are performed outside of the ERFs.

To support the evaluation of the emergency plan and procedures, NextEra is required to conduct drills, exercises, tabletops, etc. to validate and demonstrate that the ERO, including the remote ERO, can responded successfully. Providing new (first-time) enhanced processes and abilities to protect the public should not be limited due to any existing abilities or inabilities to evaluate the enhancements. The NextEra drill and exercise program will be modified, as necessary, to incorporate the demonstration and evaluation of the remote ERO capability. Evaluations will focus upon the remote ERO task performance results. As necessary, drill/exercise evaluator and controllers will monitor the communication channels; similar to evaluations and controls of current remote drill/exercise activities (such as JIS and field monitoring activities). Critiques conducted after these drills and exercises should identify any issues encountered with the remote response; weaknesses identified from the critique will be entered into the appropriate site corrective action process.

During exercises, acceptable performance determination of remote ERO positions is based upon task performance results and monitoring communication channels, as necessary. As stated above, this is similar to evaluating current remote ERO activities. The following areas are examples which could be applicable based upon the remote ERO's responsibilities and task performance results:

- Risk-Significant Areas

Disposition

o Classification of events o Development of Protective Action Recommendations (PARs) o Assessment of offsite consequences • Additional Areas for Inspection o Readiness and adequacy of EP equipment o Timely activation of facility o Command and control o Ability to diagnose plant accident conditions o Ability to formulate mitigating actions o Adequacy of communications o Accuracy and completeness of licensee-approved press releases Administrative controls will ensure that remote ERO responders have access to any required data and any equipment necessary to perform their emergency response duties. Administrative controls will also require periodic tests/maintenance to verify the functionality of the equipment. Individuals filling remote response positions will adhere to the Fitness-for-Duty (FFD) requirements in 10 CFR 26 and station procedures. Current NextEra procedures and policies require ERO responders to certify they are fit-for-duty prior to assuming their emergency response duties. These same procedures and policies are applicable for the remote ERO personnel.

3.8.2 **[Potential RIE 7-2]** Altered of Minimum Augmenting ERO Positions and Response Times

NextEra Common Emergency Plan	**NUREG-0654 R2**
Refer to Element B.3 and Table B-1: On-Shift and Augmenting ERO Staffing Plan	Refer to Element B.3 and Table B-1: On-Shift and Augmenting ERO Staffing Plan

Disposition

See Sections 3.2 and 3.3 Potential RIE deviation dispositions for position specific ERO position and augmentation time deviation dispositions.

3.8.3 **[Potential RIE 7-3]** EOF not Primary Base of Station Emergency Operations

NextEra Common Emergency Plan	**NUREG-0654 R2**
The Emergency Operations Facility (EOF) provides a dedicated location for support of the site event response activities. The EOF is sized to accommodate ERO responders and NRC, FEMA, and state representatives. The EOF is activated when minimum staffing requirements are met, key systems and equipment are verified operational, and the ERO personnel are prepared to perform their functions. When activated, the EOF's primary functions include: • Coordinate emergency response activities with federal, state, and local authorities • Coordinate support activities performed by personnel brought in to assist NextEra personnel • Perform offsite dose assessment and field monitoring activities.	H.3 An EOF is established, using current Federal guidance, as the primary base of emergency operations for the licensee during a radiological incident. The EOF facilitates the management and coordination of the overall emergency response, including the sharing of information with Federal, state, local, and tribal government authorities.

NextEra Common Emergency Plan	NUREG-0654 R2
• Development of dose based offsite protective actions recommendations. • Coordination of emergency response activities with federal, state, and local authorities. • Coordination of radiological and environmental assessment activities with offsite agencies. • Communicate with the NRC HPN line. • Coordinate corporate support. • Support site acquisition of external assistance (technical, craft, admin, etc.). • Support site acquisition of equipment, supply, and logistic resources. Because the EOF is located outside the plume exposure EPZ for all NextEra sites, specialized ventilation systems and radiological monitoring are not required. The EOF ventilation system is consistent in design with standard building codes. Each EOF provides communications to the Control Room, TSC, field monitoring teams, NRC, and OROs. The EOF has the capability for the acquisition, display, and evaluation of unit, radiological and meteorological conditions necessary to perform accident assessment and determine protective measures. The EOFs have access to drawings and other records, including general arrangement diagrams, piping and instrumentation diagrams (P&IDs), electrical schematics and plant procedures as either electronic or paper documents. The EOF has the capability to support the remote response of ERO positions. Site specific details of the EOF are described in the site annexes.	

Disposition

NextEra will transfer and retains command-and-control and non-delegable tasks in the TSC, and therefore the TSC is the primary base of emergency operations for the licensee. By maintaining command-and-control in the TSC, multiple turnovers of responsibilities are not required.

The change to maintain the TSC as the primary base of emergency operations is an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations

3.8.4 **[Potential RIE 7-4]** Reference and Scope Change for MBDBE Exercises

NextEra Common Emergency Plan	**NUREG-0654 R2**
N.3.e 10 CFR 50.155(b)(2) Strategies Demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.155(b)(2). Each NextEra site will conduct at least one scenario requiring demonstration of the ability to transition between procedures and select the strategy(ies) for preventing or mitigating fuel damage and limiting radiological releases, within an eight-year cycle. The MBDBE exercise scenario will be based in one of the site specific strategies used to mitigate spent fuel pool damage scenarios or one of the 7 strategies for PWRs used to mitigate reactor accidents and maintain containment. The MBDBE exercise may be conducted separately from the main exercise timeline and sequence of events. This includes the (simulated) deployment and use of equipment associated with these strategies. At a minimum, TSC and OSC ERO staff will participate in this portion of the exercise. Participation of Control Room, EOF, JIC ERO, and offsite officials may be simulated. Methods to accomplish this demonstration are dependent upon the nature of the postulated initiating event, the plant response/accident sequence, and the ability of responders to select and implement mitigation/management strategies. These methods involve conducting any of the following: • A demonstration of the transition from a controlling AOP or EOP into the Extensive Damage Mitigation Guidelines (EDMGs), FLEX support guidelines (FSGs), or Severe Accident Management Guidelines (SAMGs). • A demonstration of the use of EDMGs. • A demonstration of the use of FSGs. • A demonstration of the use of SAMGs.	N.3.e 10 CFR 50 54(hh)(2) Strategies Demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2).

Disposition

NUREG-0654 R2 Element N.3.e calls for the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2). 10 CFR 50.54(hh)(2) has been replace by 10 CFR 50.155(b)(2). Language of the two regulations is as follows:

10 CFR 50.54(hh)(2) (74 FR 13925)	***10 CFR 50.155(b)(2) (84 FR 39684)***

Disposition

Each licensee shall develop and implement guidance and strategies intended to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the circumstances associated with loss of large areas of the plant due to explosions or fire, to include strategies in the following areas: *(i) Fire fighting;* *(ii) Operations to mitigate fuel damage; and* *(iii) Actions to minimize radiological release.*	*Extensive damage mitigation guidelines—Strategies and guidelines to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the circumstances associated with loss of large areas of the plant impacted by the event, due to explosions or fire, to include strategies and guidelines in the following areas:* *(i) Firefighting;* *(ii) Operations to mitigate fuel damage; and* *(iii) Actions to minimize radiological release.*

Scope of Strategies Used in an Emergency Plan Related MBDBE Exercise

The Federal Register content (74 FR 13925) for implementation of 10 CFR 50.54(hh)(2) provided the following discussion:

Section 50.54(hh)(2) requires licensees to develop guidance and strategies for addressing the loss of large areas of the plant due to explosions or fires from a beyond-design basis event through the use of readily available resources and by identifying potential practicable areas for the use of beyond-readily-available resources. These strategies are to address a licensee's responses to events that are beyond the design basis of the facility. The requirements in the final rule are based on similar requirements originally found in the ICM order of 2002. Ultimately, these mitigative strategies were further developed and refined through extensive interactions with licensees and industry. The NRC recognizes that these mitigative strategies are beneficial for the mitigation of all beyond-design basis events that result in the loss of large areas of the plant due to explosions or fires. Current reactor licensees comply with these requirements through the use of the following 14 strategies that have been required through an operating license condition. These strategies fall into the three general areas identified by §§ 50.54(hh)(2)(i), (ii), and (iii). The fire-fighting response strategy reflected in § 50.54(hh)(2)(i) encompasses the following elements:

1. Pre-defined coordinated fire response strategy and guidance.

2. Assessment of mutual aid fire fighting assets.

3. Designated staging areas for equipment and materials.

4. Command and control.

5. Training of response personnel.

The operations to mitigate fuel damage provision in § 50.54(hh)(2)(ii) includes consideration of the following:

1. Protection and use of personnel assets.

2. Communications.

3. Minimizing fire spread.

4. Procedures for implementing integrated fire response strategy.

5. Identification of readily-available, pre-staged equipment.

6. Training on integrated fire response strategy.

7. Spent fuel pool mitigation measures.

The actions to minimize radiological release provision in § 50.54(hh)(2)(iii) includes consideration of the following:

1. Water spray scrubbing.

2. Dose to onsite responders.

Disposition

The Commission considered specifically including these 14 strategies in § 50.54(hh)(2). However, the Commission decided that the more general performance-based language in § 50.54(hh)(2) was a better approach to account for future reactor facility designs that may contain features that preclude the need for some of these strategies. New reactor licensees are required to employ the same strategies as current reactor licensees to address core cooling, spent fuel pool cooling, and containment integrity. The mitigative strategies employed by new reactors as required by this rule would also need to account for, as appropriate, the specific features of the plant design, or any design changes made as a result of an aircraft assessment that would be performed in accordance with the proposed Aircraft Impact Assessment rule (72 FR 56287; October 3, 2007).

As shown above, the actual number/list of strategies was not included in the body of the 10 CFR 50.54(hh)(2) regulation.

Subsequent regulatory guidance clarified the list of EDMG response strategies, and the NRC endorsement of NEI 06-12 specifically provided seven EDMG strategies for PWRs, which have been tied to 10 CFR 50 Appendix E.IV.F.2.j.(iii)(4) by the NRC in ML20070K088:

- Makeup to RWST
- Manually Depressurize SGs to Reduce Inventory Loss
- Manual Operation of Turbine-Driven (or diesel-driven) AFW Pump
- Manually Depressurize SGs and Use Portable Pump
- Makeup to CST/AFWST
- Containment Flooding with Portable Pump
- Portable Sprays

In this regard, NUREG-0654 R2 guidance on the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] are as follows:

These exercises should address development and maintenance of the following skills associated with the 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] strategies:

- *Use of the strategies to mitigate spent fuel pool damage scenarios. All applicable strategies, such as makeup, spray, and leakage control, should be addressed, but not every variation of a given strategy needs to be addressed; and*
- *Use of the strategies to mitigate reactor accidents and maintain containment. Each of the 10 strategies for BWRs or 7 strategies for PWRs should be addressed based on the type of reactor, but not every variation of a given strategy needs to be addressed.*

Thus, the scope of strategies applicable to an emergency plan MBDBE exercise in the proposed emergency plan include the site specific strategies used to mitigate spent fuel pool damage scenarios and the 7 strategies for PWRs used to mitigate reactor accidents and maintain containment.

Strategy Frequency Used in an Emergency Plan Related MBDBE Exercise

10 CFR 50 Appendix E.IV.F.2.j.(iii), states that licensees shall vary the content of scenarios during exercises. MBDBE exercises are one of five types of exercise scenarios listed in Appendix E, each of which have multiple variations. Demonstration of all or multiple variations for each type of exercise scenario is not the intent of the regulation, and performance of all the possible exercise variations/strategies is not possible in the four NRC evaluated biennial exercises conducted within the cycle. As it is, the current list of exercise scenario types must already be combined in order to be demonstrated during a biennial NRC evaluated exercise.

Thus, only one MBDBE strategy needs to be performed in a biennial NRC evaluated exercise within the cycle. Similar to the scenario variations for the other types for exercises, MBDBE strategies are expected to be varied between exercise evaluations. An exercise with multiple strategies or more than one MBDBE based exercise within the cycle is not required by the proposed emergency plan.

Extent of Play Used in an Emergency Plan Related MBDBE Exercise

Disposition

The relocation of 10 CFR 50.54(hh)(2) content to 10 CFR 50.155(b)(2) involved only minor wording changes. However, included in the movement of the regulation was the specific intent to not regulatorily require drills or exercises, as provided by the following discussion in the Federal Register (84 FR 39684):

> *The NRC noted that the conduct of drills or exercises was not included as a requirement in the Mitigation Strategies Order, instead being an element of an acceptable approach to meeting the order's requirement for training. Drills are addressed in the regulatory guidance for the Mitigation Strategies Order contained in section 11.6.5 of NEI 12-06, as endorsed by JLD-ISG-2012-01 and carried forward to the regulatory guidance for the final rule. NEI 12-06, Revisions 0 and 2 contained guidance on the content and periodicity of these drills, specifying the same 8-year period as was proposed for this rule. NEI 12-06, Revision 4, which is endorsed by the final version of Regulatory Guide 1.226, incorporates by reference further guidance on the performance of drills contained in the industry document NEI 13-06, Revision 1, "Enhancements to Emergency Response Capabilities for Beyond Design Basis Accidents and Events," which also specifies the 8-year period that was proposed for drill performance for this rule….*
>
> *The NRC concludes that the requirements imposed by the Mitigation Strategies Order were sufficient to provide reasonable assurance of adequate protection and no new information was developed with regard to drills or exercises that would modify this conclusion. The NRC similarly concludes that imposing a requirement for drills and exercises would not provide a substantial increase in the overall protection of public health and safety. Therefore, the imposition of a requirement for drills or exercises would not meet the provisions of the Backfit Rule. The requirement for drills and exercises has been removed from the final rule….*
>
> *In addition, the NRC did not revise the MBDBE drill frequency because it is specified in the regulatory guidance for the final rule in response to these comments. The NRC concluded that the 8-year periodicity strikes the correct balance in terms of providing an appropriate level of regulatory assurance, and, by aligning with the current emergency preparedness exercise requirements, it provides licensees with flexibility should they choose to implement the drills in conjunction with emergency preparedness drills or exercises.*

However, 10 CFR 50 Appendix E does require licensees to provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to respond to a scenario under § 50.155(b)(2) once in each 8-calendar-year cycle in an exercise.

In this regard, NUREG-0654 R2 guidance on the demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] are as follows:

> *The portion of a biennial exercise that involves demonstration of strategies associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] may be conducted separately from the main exercise timeline and sequence of events. Thus, the initiating event(s) for entry into site-specific guidelines or procedures associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] may differ from the initiating event(s) of the main exercise scenario and could involve an initiating event other than hostile action, such as a fire, flood, or explosion affecting large areas of the site, or station blackout. At a minimum, TSC and OSC staff would need to participate in this portion of the exercise. Participation of CR personnel, EOF staff, JIC staff, and offsite officials may be simulated consistent with the purpose of this portion of the exercise to maintain key ERO skills for familiarity with guidelines, procedures, and strategies associated with 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)]. This includes the (simulated) deployment and use of equipment associated with these strategies and intended to maintain or restore core cooling, containment, and/or spent fuel pool cooling. The portion of the exercise scenario addressing demonstration of 10 CFR 50.54(hh)(2) [10 CFR 50.155(b)(2)] related strategies should be included in the licensee's submittal of the biennial exercise scenario for NRC review. Exercises may also include the use of the NRC-endorsed mitigation strategies described in NEI 12-06, Revision 0, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide."*

Disposition

NEI 13-06, endorsed by the NRC and included in the Federal Register notice for implementation of 10 CFR 50.155(b)(2), provides additional information regarding the extent of play of MBDBE drills:

5.3.1 Industry Performance Standards for BDB Event Response Drills

Each licensee should demonstrate the capability for effective integrated use of their accident mitigation and management procedure and guideline sets. In particular, the ability to transition between procedure and guideline sets, and select the best strategy for preventing or mitigating fuel damage and limiting radiological releases, is demonstrated. Complementary methods will be necessary to accomplish this demonstration since the procedures and guidelines implemented for a given scenario are dependent upon the nature of the postulated initiating event, the plant response/accident sequence, and the ability of responders to select and implement mitigation/management strategies. The use of complementary methods will also promote more effective use of resources (e.g., facilitates targeted drill objectives, avoids excessive drill "down time" and durations, etc.), and minimize potential safety challenges to personnel and equipment. These methods are discussed below and involve conducting:

- *A drill that demonstrates the integrated use of FLEX strategies under the control of an Abnormal Operating Procedure (AOP) or Emergency Operating Procedure (EOP), as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.4.*
- *A drill that demonstrates the transition from a controlling AOP, EOP or Extensive Damage Mitigation Guidelines (EDMG) into Severe Accident Management Guidelines (SAMGs), and the selection of appropriate severe accident management strategies. The integrated use of FLEX strategies may occur if directed by the controlling SAMG and as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.5.*
- *A drill that demonstrates the use of EDMG strategies. The integrated use of AOPs and EOPs, and FLEX strategies, may occur if directed by the controlling EDMG as appropriate to the postulated scenario. Specific considerations for this drill are discussed in section 5.3.6.*

Thus, the extent of play applicable to an emergency plan MBDBE exercise in the proposed emergency plan specifies that only TSC and OSC ERO personnel are required staffing (although other emergency response facilities may be included) and demonstration involves;

(1) the transition from emergency operating procedures into Extensive Damage Mitigation Guidelines (EDMGs), FLEX support guidelines (FSGs), or Severe Accident Management Guidelines (SAMGs), and

(2) use of the EDMG, FSG or SAMG from a decision making and communications aspect with simulated field actions.

Summary

The proposed emergency plan replaces the NUREG-0654 element reference from 10 CFR 50.54(hh)(2) to 10 CFR 50.155(b)(2), and establishes the scope (meaning type of MBDBE strategies), number (meaning how many MBDBE strategies must be demonstrated within the cycle) and the ERO's extent of play of those exercises.

This detailed specification is consistent with 10 CFR 50 Appendix E.IV.F.2.j.(iii).

Other drills and training that involve personnel and response actions outside the scope of the emergency plan will continue to be conducted under the MBDBE program.

3.8.5 **[Potential RIE 7-5]** Reduced Hospital and Ambulance Drill Participation and Periodicity

NextEra Common Emergency Plan	**NUREG-0654 R2**
[CEP – N.4.a] Each NextEra site will conduct an onsite simulated medical drill once per calendar year. The scope of the emergency medical drill will include a simulated on-site injured and contaminated individual and medical/ first aid treatment, including contamination control. Emergency Medical Drill offsite participation and periodicity for support Hospital and Ambulance services are performed in accordance with the 42 CFR 482.15 regulations and are not included in the scope of the station medical drills.	N.4.a Emergency Medical Drills Emergency medical drills are conducted annually. These drills involve a simulated, contaminated individual and contain provisions for participation by support services agencies (i.e., ambulance and offsite medical treatment facility).

Disposition

The hospitals are accredited by The Joint Commission in compliance with 42 CFR 482.15, Condition of Participation: Emergency Preparedness. The regulations and accreditation require the hospitals to maintain an emergency plan and that the emergency preparedness program include, but not be limited to, the following elements (excerpts from the 42 CFR 482.15 regulation):

(a) Emergency plan. The hospital must develop and maintain an emergency preparedness plan that must be reviewed, and updated at least every 2 years. The plan must do the following:

(1) Be based on and include a documented, facility-based and community-based risk assessment, utilizing an all-hazards approach.

(2) Include strategies for addressing emergency events identified by the risk assessment.

(4) Include a process for cooperation and collaboration with local, tribal, regional, State, and Federal emergency preparedness officials' efforts to maintain an integrated response during a disaster or emergency situation.

(b) Policies and procedures. The hospital must develop and implement emergency preparedness policies and procedures, based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, and the communication plan at paragraph (c) of this section. The policies and procedures must be reviewed and updated at least every 2 years.

(d) Training and testing. The hospital must develop and maintain an emergency preparedness training and testing program that is based on the emergency plan set forth in paragraph (a) of this section, risk assessment at paragraph (a)(1) of this section, policies and procedures at paragraph (b) of this section, and the communication plan at paragraph (c) of this section. The training and testing program must be reviewed and updated at least every 2 years.

(1) Training program. The hospital must do all of the following:

(i) Initial training in emergency preparedness policies and procedures to all new and existing staff, individuals providing services under arrangement, and volunteers, consistent with their expected role.

(ii) Provide emergency preparedness training at least every 2 years.

(iii) Maintain documentation of the training.

(iv) Demonstrate staff knowledge of emergency procedures.

(v) If the emergency preparedness policies and procedures are significantly updated, the hospital must conduct training on the updated policies and procedures.

(2) Testing. The hospital must conduct exercises to test the emergency plan at least twice per year. The hospital must do all of the following:

Disposition

(i) Participate in an annual full-scale exercise that is community-based; or

(A) When a community-based exercise is not accessible, conduct an annual individual, facility-based functional exercise; or.

(B) If the hospital experiences an actual natural or man-made emergency that requires activation of the emergency plan, the hospital is exempt from engaging in its next required full-scale community-based exercise or individual, facility-based functional exercise following the onset of the emergency event.

(ii) Conduct an additional annual exercise that may include, but is not limited to the following:

(A) A second full-scale exercise that is community-based or an individual, facility-based functional exercise; or

(B) A mock disaster drill; or

(C) A tabletop exercise or workshop that is led by a facilitator and includes a group discussion, using a narrated, clinically-relevant emergency scenario and a set of problem statements, directed messages, or prepared questions designed to challenge an emergency plan.

(iii) Analyze the hospital's response to and maintain documentation of all drills, tabletop exercises, and emergency events, and revise the hospital's emergency plan, as needed.

Therefore, the hospitals use an all-hazards approach to determine the community-risk and priorities of its emergency response preparation (training, drills, etc.) on the risk / priority. Maintaining the Contaminated Medical Emergency Drill annual frequency, places a false priority /risk and circumvent the 42 CFR 482.15 community all-hazards regulations for the hospitals.

Ambulance services are under different regulations (primarily state regulations) but serves the same demographic and has similar community-risk and priority profile. Per the 42 CFR 482.15 regulation, the hospital’s emergency plan includes cooperation and collaboration of local emergency preparedness officials and an annual full-scale community-based drill. CEP Section O.1.a, NextEra will continue to offer emergency response training annually to the ambulance service(s). Training includes basic radiation protection, the notification process for their organization, and their organization’s expected role.

This change removes the requirement for hospital and ambulance participation in the annual emergency medical drill. The proposed CEP revision retains all other previous Offsite Response Organization (ORO) arrangements including offered annually training, offered participation in drills and pre-arrangements documented in Letters of Agreement (LOAs).

NextEra stations will continue to meet the requirements of 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, Section IV.F.1. NextEra stations will continue to have arrangements with the OROs; annual training will be offered, and hospital participation in the emergency medical drill will be coordinated under 42 CFR 482.15 requirements. NextEra stations will participate in the hospital’s community risk assessments to ensure the station’s is properly risk evaluated and prioritized.

On-site emergency medical drill and training will be provided annually for the station’s ERO. The training process/program will determine the need for additional on-site drills included in the training.

This drill participation arrangement was discussed with the OROs (hospitals and ambulance providers) and their concurrence is documented in Enclosure 10.

The 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations do not specify a frequency to perform the emergency medical drill. The annual frequency is specified in NUREG-0654 and provides the NRC approved guidance how to comply with the regulations. Licensees “may voluntarily use the guidance in the document to demonstrate compliance” with the NRC regulations or provide “methods or solutions that differ from those described.” The alternate method of basing the drill frequency on the ORO community-risk assessment is appropriate and meets the intent of the planning standards.

Disposition

The change to the emergency medical drill scope retains the annual requirement for the station while allowing the hospital and ambulance service the ability to participate under and within their regulatory requirements. This should provide a commitment which the NRC can evaluate as an acceptable alternate method to comply with 10 CFR Part 50 Appendix E and 10 CFR 50.47(b) regulations.

3.8.6 **[Potential RIE 7-6]** Reduced Biennial Report-In Drill Frequency to Cycle

NextEra Common Emergency Plan	**NUREG-0654 R2**
Each NextEra site will conduct an off-hours unannounced ERO report-in drill at least once within an eight-year cycle. The scope of the off-hours unannounced ERO report-in drill will require actual response to the assigned facility. The Off-Hours Report-In Drill requirement may be satisfied by an actual event provided objectives are evaluated and documented in a critique report.	N.4.h Off-Hours Report-In Drills Off-hours report-in drills are conducted biennially and are unannounced.

Disposition

The current emergency plan requires an off-hours unannounced report-in drills once in each 8-year cycle. NUREG-0654, Revision 2, Element N.4.h requires that off-hours report-in drills be unannounced and conducted biennially. The proposed NextEra Common Emergency Plan specifies that an unannounced off-hours report-in drill be performed once per 8-year cycle.

Establishing the period for the off-hours report-in drill as once per 8-year cycle is based on the NUREG-0654, Revision 2, Element N.1.c requirement for a 6:00 p.m. and 4:00 a.m. drill or exercise to be performed once per cycle (which is off-hours).

In addition to the requirement of Element N.1.c, every biennial exercise requires demonstration of ERO response and ERF activation following declared emergencies. Requiring additional biennial off-hours report-in drills is a burden to the organization without a commensurate level of benefit to the emergency preparedness program.

Performance of the Element N.4.h call-in drill within the cycle periodicity provides sufficient demonstration of off-hours augmentation capability without significant impact on employees during late non-working hours.

3.8.7 **[Potential RIE 7-7]** Reduced Quarterly Call-In Drill Frequency to Biennially

NextEra Common Emergency Plan	**NUREG-0654 R2**
The NextEra ERO notification is an all-call process. Each NextEra site will conduct an off-hours unannounced ERO call-in drill biennially to verify each minimum staffing ERO position meets the required Table B-1 response time. The scope of the off-hours unannounced ERO call-in drill will require collection of the ERO notification system report which documents response within the required time. Completion of an Element N.4.h off-hours unannounced ERO report-in drill satisfies the requirements of the off-hours unannounced ERO call-in drill in this element.	N.4.i **Off-Hours Call-In Drills** Off-hours call-in drills are conducted quarterly, such that each ERO member's normally expected response time is assessed at least biennially based on call-in drill responses or an alternate means for determining response time. Some drills are unannounced.

NextEra Common Emergency Plan	NUREG-0654 R2
The Off-Hours Call-In Drill requirement may be satisfied by an actual event provided the objectives are evaluated and documented in a critique report.	

Disposition

NUREG-0654 R2, Element N.4.h designates that off-hour call-in drills be conducted at least quarterly, such that each ERO member's response time is validated at least biennially (with some drills being unannounced).

The proposed emergency plan specifies that off-hours call-in drill be performed biennially. Additionally, the non-period specific requirement for some drills to be unannounced has been established as a biennial frequency.

The NextEra ERO notification is an all-call process, which for call-in drills will collect response time estimates from the entire ERO. This process validates all ERO members' response time each time it is used.

Removing the quarterly requirement to test a portion of the ERO response and retaining the biennial requirement for a complete ERO response meets the intent of the NUREG-0654 element.

3.8.8 **[Potential RIE 7-8]** Added Minimum Staffing Drill Once per Cycle

NextEra Common Emergency Plan	NUREG-0654 R2
N.4.l **Minimum Staffing Drills** An ERO minimum staffing (no participation of non-minimum augmenting ERO personnel) drill is conducted at least once during every eight-year exercise cycle.	N/A
Each NextEra site will conduct a minimum staffing drill at least once within an eight-year cycle.	
A minimum staffing response drill requires facility activation, full transfer of responsibilities from the Control Room, and demonstration of event assessment and response activities.	

Disposition

There is no requirement to perform minimum augmenting ERO drills.

The proposed emergency plan has voluntarily added a requirement to conduct a minimum staffing drill once in each 8-year cycle to verify that the minimum augmenting ERO positions identified in the NextEra Common Emergency Plan can effectively implement the emergency plan without the assistance of additional support personnel.

Specific objectives will include timely facility activation, transfer of command and control, event assessment and classification, notification and response activities.

This change exceeds the ERO drill requirements of the current emergency plan and NUREG-0654 R2.

3.8.9 **[Potential RIE 7-9]** Added On-shift Response Drill Once per Cycle

NextEra Common Emergency Plan	NUREG-0654 R2
N.4.m **On-Shift Response** An ERO on-shift response (ERO augmentation no sooner than 90 minutes) drill is conducted at least once during every eight-year exercise cycle. Each NextEra site will conduct a minimum staffing drill at least once within an eight-year cycle. A minimum staffing response drill requires facility activation, full transfer of responsibilities from the Control Room, and demonstration of event assessment and response activities.	N/A

Disposition

There is no requirement to perform On-Shift Response Drill.

The proposed emergency plan has voluntarily added requirement to conduct one drill each 8-year cycle to verify that the on-shift ERO positions identified in the NextEra Common Emergency Plan can effectively implement the emergency plan without the support of augmenting ERO personnel for a minimum of 90 minutes after event declaration.

Specific objectives will include classification, notification and PAR functions with the on-shift staff.

This change exceeds the ERO drill requirements of the current emergency plan and NUREG-0654 R2.

3.8.10 **[Potential RIE 7-10]** Response Personnel Retraining Periodicity Not Specified

NextEra Common Emergency Plan	NUREG-0654 R2
Initial and continuing training is conducted to ensure ERO personnel are properly qualified to their specific position. Categories of ERO personnel requiring training include: 1. Emergency Directors (includes the aspect of classification, notification and PARs) 2. Accident Assessment 3. Radiation Protection and Monitoring a. ERO RPT position is qualified to ANSI technician standards. b. ERO RP Qualified Individual position is task qualified to perform the following: • Provide RP coverage for accessing known radiological environments (which includes respirator qualifications) • Control dosimetry and RCA access • Provide in-plant surveys	O.1 Each organization ensures the training of emergency responders and other appropriate individuals with an operational role is described in the emergency plan. Initial training and at least annual retraining are provided.

NextEra Common Emergency Plan	NUREG-0654 R2
c. ERO Field Monitoring Team Technicians receive initial training for the tasks they will be expected to perform during an emergency. The following general topics will be included in the training: • Equipment and equipment checks • Communications • Plume tracking techniques • Personnel monitoring • Emergency exposure criteria • Locations and use of radiological emergency equipment 4. Repair and Damage Control Teams a. Lead OSC Supervisor position is trained to perform RP supervisory tasks. b. Operations, maintenance, chemistry and radiation protection personnel who would be assigned to repair and damage control teams are trained as part of their normal job-specific duties to respond to both normal and abnormal plant conditions and work under direction of an ERO supervisor in the OSC. 5. Security a. Security personnel receive emergency plan training as part of their normal job specific training. b. Security personnel assigned a specific ERO position receive training on emergency plan related tasks. 6. Fire Brigade – Refer to the site fire protection program. 7. First Aid – Personnel assigned as first aid responders maintain qualifications equivalent to Red Cross Standard First Aid techniques.	

Disposition

As stated in section O.2 of the proposed emergency plan, the ERO training program is developed and evaluated based on position-specific responsibilities/tasks using Systems Approach to Training (SAT) principles, when applicable. The SAT process determines the necessary periodicity of the retraining (continuing training) on a task basis.

3.8.11 **[Potential RIE 7-11]** Training Program Review Periodicity Not Specified

NextEra Common Emergency Plan	NUREG-0654 R2
Changes to the training program are identified from trainee feedback and by critique items captured during drills and incorporated per the principles of the SAT process.	O.2.a The ERO training program is reviewed at least annually and revised as necessary.

Disposition

As stated in section O.2 of the proposed emergency plan, the ERO training program is developed and evaluated based on position-specific responsibilities/tasks using Systems Approach to Training (SAT) principles, when applicable. In addition to continuous training evaluation through drill and exercise critique process that identifies performance issues and initiates training reviews for particular tasks, the SAT process includes provisions for training program review.

3.9 Site Specific EP Commitment Analysis

This analysis identifies the Seabrook Station site-specific emergency preparedness commitments made to the NRC and determines whether they continue to be required in the proposed NextEra Common Emergency Plan or Seabrook Station Emergency Plan Annex.

The results of the analysis of on-going Seabrook Station-specific NRC commitments and the commitments contained in the proposed NextEra Common Emergency Plan and Seabrook Station (SBK) Emergency Plan Annex revealed that all station-specific NRC commitments are captured within the emergency plan.

There are no new commitments identified in this analysis.

3.10 Impact of Proposed Changes on State Emergency Plan

A draft copy of the proposed NextEra Common Emergency Plan and SBK Emergency Plan Annex was sent to emergency preparedness representatives at the State of New Hampshire and Commonwealth of Massachusetts to inform them of the proposed changes and solicit comments.

State and Commonwealth personnel provided information via electronic mail stating that the agency concurs with SBK's initiative to develop the NextEra Common Emergency Plan and SBK Emergency Plan Annex. Further concurrence will be acquired upon NRC approval of the proposed NextEra Common Emergency Plan and SBK Emergency Plan Annex and revisions to the ORO emergency preparedness programs will be conducted during the requested implementation period.

Refer to Enclosure 10, Offsite Response Organization Concurrence, for agency response regarding proposed changes to the SBK emergency plan.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The proposed NextEra Common Emergency Plan establishes an updated licensing basis for the NextEra sites that complies with current NRC regulations in 10 CFR 50.47(b) and 10 CFR 50, Appendix E. In addition, the proposed NextEra Common Emergency Plan is formatted and uses the NRC-generated guidance in NUREG-0654/FEMA-REP-1, Revision 2 (Reference 6.8).

RIS 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation (Reference 6.13), was also reviewed in support of this submittal.

The proposed changes have been evaluated against the applicable regulatory requirements and guidance criteria. Each section of the proposed NextEra Common Emergency Plan lists applicable regulations (all 10 CFR 50.47(b) planning standards are addressed) and Appendix 3 of the plan includes a cross reference to the 10 CFR 50 Appendix E Section IV criteria. The proposed NextEra Common Emergency Plan continues to assure that regulatory requirements and emergency planning standards associated with emergency response are met.

4.2 Precedent

NUREG-0654/FEMA-REP-1, Revision 2, issued December 2019, reflects changes to both NRC and FEMA regulations, guidance, policies, and doctrine, as well as advances in technology and best practices that have occurred since the document was originally issued in November 1980. This update also incorporates the four supplemental documents and addenda that have been issued in the intervening years and is intended to modernize and consolidate the guidance making it easier for users to understand.

The following are industry precedents of licensees requesting and receiving approval for a change of the Emergency Plan based on NUREG-0654/FEMA-REP-1, Revision 2, guidance:

- Duke Energy Corporation (Reference 6.18)
- South Texas Project Nuclear Operating Company (Reference 6.20)
- La Crosse Boiling Water Reactor (LABWR) / Dairyland (Reference 6.23)
- Southern Nuclear Operating Company (Reference 6.24)

The above Duke Energy and Southern Nuclear Operating Company are also recent precedents of common fleet emergency plans.

4.3 No Significant Hazards Consideration Determination Analysis

Pursuant to 10 CFR 50.90 and 10 CFR 50.54(q), amendment to the licenses for SBK Unit 1 is being requested. Specifically, the proposed changes would revise the SBK operating licenses to adopt the proposed NextEra Common Emergency Plan that includes the SBK Emergency Plan Annex.

By standardizing emergency plans, NextEra will make improvements to the fleet by increasing consistency of organizations, duties and responsibilities, procedures, and training. NextEra also will align the sites using consistent standards and definitions. The changes will make NextEra 's emergency plan easier to follow and understand.

The requested amendments to the licenses support changes to the SBK emergency plan based upon completion of a supporting evaluation of the proposed NextEra Common Emergency Plan and SBK Emergency Plan Annex. The proposed changes will help align the NextEra nuclear sites' emergency preparedness programs with NUREG-0654/FEMA-REP-1, Revision 2.

The proposed changes have been reviewed considering the applicable requirements of 10 CFR 50.47, 10 CFR 50 Appendix E and other applicable NRC guidance criteria. NextEra has evaluated the proposed changes and determined that those changes do not involve a Significant Hazards Consideration. In support of this determination, an evaluation of each of the three (3) standards, set forth in 10 CFR 50.92, *"Issuance of amendment,"* is provided below.

1. ***Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?***

   Response: No.

   The proposed changes do not increase the probability or consequences of an accident. The proposed changes do not impact the function of plant Structures, Systems, or Components (SSCs). The proposed changes do not affect accident initiators or accident precursors, nor do the changes alter design assumptions. The proposed changes do not alter or prevent the ability of the onsite ERO to perform their intended functions to mitigate the consequences of an accident or event. No changes are proposed to the ERO, emergency classifications, accident assessment, notification methods, facilities and equipment, training, or public agency support that would alter the consequences of an accident. The proposed changes establish a new NextEra Common Emergency Plan with site-specific annexes and modifies the emergency response organization (ERO). The new emergency plan continues to meet applicable requirements and standards as well as provide for effective emergency response. The new emergency plan also continues to provide necessary response staff for emergencies as demonstrated by functional analysis as well as staffing analysis in accordance with 10 CFR 50 Appendix E.IV.A.9.

   Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. ***Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?***

   Response: No.

The proposed changes have no impact on the design, function, or operation of any plant SSCs. The proposed changes do not affect plant equipment or accident analyses. The proposed changes do not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed), a change in the method of plant operation, or new operator actions. The proposed changes do not introduce failure modes that could result in a new accident, and the proposed changes do not alter assumptions made in the safety analysis. The proposed changes establish a new NextEra Common Emergency Plan with site-specific annex and modifies the emergency response organization (ERO). The new emergency plan continues to meet applicable requirements and standards as well as provide for effective emergency response. The new emergency plan also continues to provide necessary response staff for emergencies as demonstrated by functional analysis as well as staffing analysis in accordance with 10 CFR 50 Appendix E.IV.A.9.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

Margin of safety is associated with confidence in the ability of the fission product barriers (i.e., fuel cladding, reactor coolant system pressure boundary, and containment structure) to limit the level of radiation dose to the public.

The proposed changes do not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analyses. There are no changes being made to safety analysis assumptions, safety limits, or limiting safety system settings that would adversely affect plant safety as a result of the proposed changes. Margins of safety are unaffected by the proposed changes to the SBK emergency plan.

The proposed changes do not impact operation of the plant or its response to transients or accidents. The proposed changes do not involve a change in the method of plant operation, and no accident analyses will be affected by the proposed changes. Safety analysis acceptance criteria are not affected by these proposed changes. The proposed changes will continue to provide effective emergency response as well as the necessary onsite ERO response staff.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

4.4 Conclusions

In conclusion, based on the considerations discussed above: 1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, 2) such activities will be conducted in compliance with the Commission's regulations, and 3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

6.1 10 CFR 50.47, Emergency Plans

6.2 10 CFR 50.54(q), Conditions of licenses – Emergency Plans

6.3 10 CFR 50.90, Application for amendment of license, construction permit, or early site permit

6.4 10 CFR 50, Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities

6.5 Regulatory Guide 1.219, Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors, Revision 1, July 2016

6.6 NSIR/DPR-ISG-01, Interim Staff Guidance, Emergency Planning for Nuclear Power Plants, Revision 0, November 2011

6.7 NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Revision 1, November 1980

6.8 NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, , Revision 2, December 2019 (ML19347D139)

6.9 NUREG-0654/FEMA-REP-1 Supplement 3, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants – Guidance for Protective Action Strategies, November 2011 (ML113010596)

6.10 Technical Basis for the Proposed Guidance in NUREG-0654/FEMA-REP-1, Section II.B, “Emergency Response Organization” (ML16117A427)

6.11 NUREG-0696, Functional Criteria for Emergency Response Facilities, February 1981 (ML051390358)

6.12 NUREG-0737, Supplement 1, Clarification of TMI Action Plan Requirements – Requirements for Emergency Response Capability, January 1983 (ML102560009)

6.13 RIS 2016-10, License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation, August 2016 (ML16124A002)

6.14 NEI 10-05, Assessment of On-Shift Emergency Response Organization Staffing and Capabilities, Revision 0, June 2011

6.15 NEI 99-01, Development of Emergency Action Levels for Non-Passive Reactors, Revision 6, November 2012

6.16 SBK Updated Final Safety Analysis Report (UFSAR)

6.17 NUREG-0896, Supplement No. 9, Safety Evaluation Report (SER) related to the operation of Seabrook Station, Units 1 and 2, March 1990 (ML20012E283)

6.18 Letter from NRC to Duke Energy Corporation – Catawba Nuclear Station, Units 1 and 2; McGuire Nuclear Station, Units 1 and 2; Oconee Nuclear Station, Units 1, 2 and 3; Brunswick Steam Electric Plant, Units 1 and 2; Shearon Harris Nuclear Power Plant, Unit 1; and H. B. Robinson Steam Electric Plant, Unit No. 2 – Issuance of Amendments for Common Emergency Plan Consistent with NUREG-0654, Revision 2, dated August 26, 2021 ((ADAMS Accession No. ML21155A213)

6.19 Letter from Duke Energy to NRC – *License Amendment Request for Common Emergency Plan Consistent with NUREG-0654, Revision 2*, dated September 3, 2020 (ADAMS Accession No. ML20247J468)

6.20 Letter from NRC to STP Nuclear Operating Company – South Texas Project, Units 1 and 2 – Correction to Amendment Nos. 221 and 206 to Authorize Revision of the Emergency Plan Based on NUREG-0654/FEMA-REP-1, Revision 2, dated May 11, 2021 ((ADAMS Accession No. ML21120A184)

6.21 Letter from South Texas Project Nuclear Operating Company to NRC – *License Amendment Request to Revise South Texas Project Electric Generating Station (STPEGS) Emergency Plan*, dated March 30, 2020 (ADAMS Accession No. ML20090B745)

6.22 Letter from Southern Nuclear Operating Company to NRC – *License Amendment Request for Revise the Emergency Plan to Change Staffing and Extend Staff Augmentation Times for Emergency Response Organization Positions*, dated June 30, 2020 (ADAMS Accession No. ML20192A140)

6.23 La Crosse Boiling Water Reactor – Issuance of Amendment No. 77 Approving Independent Spent Fuel Storage Installation Emergency Plan, Revision 40, dated April 20, 2022

6.24 Letter from NRC to Southern Nuclear Operating Company – Farley Nuclear Plant, Units 1 and 2; Hatch Nuclear Plant, Units 1 and 2; and Vogtle Generating Plant, Units 1 and 2 – Issuance of Amendments Regarding Revision to Emergency Plan to Change Staffing and Extend Staff Augmentation Times for Emergency Response Organization Positions (ADAMS Accession No. ML21217A091)

Function	Position Title	NUREG-0654 R2				Current E-Plan		Proposed E-Plan		
		Shift	Alert 60 Min	Alert 90 Min	SAE 60 Min	Shift	Alert 60 Min	Shift	Alert 60 Min	Alert 90 Min
Plant Systems Operations	Unit Supervisor					1				
	Reactor Operator					2				
	Nuclear System Operator					2				
	Work Control Supervisor					1				
Command and Control / Facility Control	Shift Manager	1				1		1		
	Site Emergency Director (TSC)		1				1			1
	EOF Manager (EOF)				1		1			1
	Response Manager (EOF)						1			
Emergency Classifications	Classification Advisor (CR/TSC)	1(a)				1(a)		1(a)		1
Communications	Shift Communicator	1(a)				2		1(a)		
	ORO Communicator (TSC)		1							1
	ENS Communicator (TSC)		1							1
Supervision RP Activities	Shift Manager	1(a)				1(a)		1(a)		
	TSC RP Coordinator (TSC)		1				1			1
	EOF RP Coordinator (EOF)				1		1			1
	Offsite Monitoring Coordinator (EOF)						1			
Dose Assessments / Projections	Shift Dose Assessor	1(a)				1(a)		1(a)		
	EOF Dose Assessor (EOF)		1							1
	Remote Dose Assessor						1(a)		1	
Radiation Protection	RP Technician	2	3	3		2	6	1		3
	RP Qualified Individual							1		2
Field Monitoring Teams	Onsite FMT Technician		1				1			
	Onsite FMT Driver		1				1			
	Offsite FMT Technician (EOF)		1	1			2			2
	Offsite FMT Driver (EOF)		1	1			2			2
Engineering and Plant Monitoring	STA	1(a)				1(a)		1(a)		
	Operations Technician (TSC)						1			
	Engineering Coordinator (TSC)						1			
	Technical Services Coordinator (TSC)						1			
	Technical Assistant (EOF)						1			
	ERO Technical Liaison (EOF)						1			
	Electrical/I&C Engineer (Remote)		1				1		1	
	Mechanical Engineer (Remote)		1				1		1	

Function	Position Title	NUREG-0654 R2				Current E-Plan		Proposed E-Plan		
		Shift	Alert 60 Min	Alert 90 Min	SAE 60 Min	Shift	Alert 60 Min	Shift	Alert 60 Min	Alert 90 Min
	Reactor Engineer (Remote)		1				1		1	

Function	Position Title	NUREG-0654 R2				Current E-Plan		Proposed E-Plan		
		Shift	Alert 60 Min	Alert 90 Min	SAE 60 Min	Shift	Alert 60 Min	Shift	Alert 60 Min	Alert 90 Min
Supervision of Repair Team Activities	Lead OSC Supervisor (OSC)		1				1			1
	FIN Supervisor (OSC)						1			1
	Electrical Supervisor (OSC)			1						
	Mechanical Supervisor (OSC)			1						
	I&C Supervisor (OSC)			1						
	RP Supervisor (OSC)			1			1			
	Maintenance Coordinator (TSC)						1			
	Radiation Controls Coordinator (OSC)						1			
	Chemistry Coordinator (OSC)						1			
Repair Team Activities	Electrician (OSC)		1				2			1
	Mechanic (OSC)		1				2			1
	I&C Technician (OSC)			1			1			1
	Chemistry Technician (OSC)						1			N/A
Security	Security Shift Supervisor					1		1		
	Security Force	(b)				(b)		(b)		
	Security Liaison (TSC)		1							1
Media Information	JIS / JIC Staff		(c)		(c)		(c)			
	Site JIS Manager (Site)						1(c)			1
	Site JIS Coordinator (Site)						2(c)			1
	Remote JIS Manager (Remote)									1
Information Technology (IT)	IT Coordinator (TSC)			1						(d)
	IT Coordinator (EOF)				1					(d)
ERO Totals – Full Breakdown		**3**	**20**	**11**	**3**	**6[e]**	**41**	**4**	**4**	**26**
ERO Totals – On-shift and Minimum Staffing		**3**	**34**					**4**	**30**	
ERO Totals – All Required Positions Filled		**37**				**47**		**34**		

(a) These positions are collateral duties. Positions assigned to the collateral duties can perform their assigned tasks without overlap or overburden.

(b) Per the site Security Plan.

(c) JIS function established at this point. Activation of the JIC is coordinated with the offsite agencies and carries no time requirement.

(d) IT personnel monitor critical digital assets remotely and respond any time an issue is identified.

(e) Current Plan Figure 8.15 incudes 5 operations personnel required be T.S. but with no specific emergency plan duties. Positions not counted in this table for total ERO positions.

NEXTera ENERGY	**NUCLEAR FLEET** **PROGRAM DESCRIPTION** NON-SAFETY RELATED **INFORMATION USE**	Program No. **EP-AA-100** Revision No. **0**

Title:

NextEra Common Emergency Plan

Responsible Department: REGULATORY AFFAIRS

Special Considerations:

Revision	Approved By	Approval Date
0		

TYPE	
DATE	
DOCT	PROGRAM
DOCN	EP-AA-100
SYS	
STATUS	DRAFT
REV	0
# OF PAGES	99

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INTRODUCTION

The NextEra Common Emergency Plan provides the means to protect the health and safety of the general public, persons temporarily visiting or assigned to nuclear power plants operated by NextEra, and plant employees. NextEra operates the Point Beach, Seabrook Station, Saint Lucie, and Turkey Point nuclear plants.

The NextEra emergency preparedness program is based upon the requirements of 10 CFR 50.47 and 10 CFR 50 Appendix E, and the guidelines of the U.S. Nuclear Regulatory Commission (NRC) as established in NUREG-0654/FEMA-REP-1, Revision 2.

The NextEra emergency plan and site annexes are formatted using the outline numbering style of NUREG-0654 R2 to explicitly align with the 10 CFR 50.47(b) planning standards, the requirements of 10 CFR 50 Appendix E, and the elements of NUREG-0654 R2. That formatting provides a direct cross-reference to the elements of NUREG-0654 R2.

The formal NextEra emergency plan for each NextEra site consists of the following program and bases documents:

- NextEra Common Emergency Plan – The NextEra common emergency plan identifies and describes the methods for responding to emergencies and maintaining emergency preparedness. Planning efforts common to all NextEra power reactor sites are encompassed within the NextEra common emergency plan.
- Site Emergency Plan Annex – The site emergency plan annexes contain information and guidance that is unique to the site. The site annexes are subject to the same review and audit requirements as the common emergency plan.
- Site Emergency Action Level (EAL) Technical Basis Document (TBD) – The EAL TBD establishes the classification scheme used to declare emergencies. The EAL TBD documents references and inputs used to determine values or events that would result in declaration of an emergency. The EAL TBD fulfills requirements of 10 CFR 50 Appendix E.IV.B.1.
- Site On-Shift Staffing Analysis – The on-shift staffing analysis documents that the minimum shift crew can perform the actions required by Emergency Operating Procedures (EOP) and the emergency plan, without task overlap or overburden, prior to Emergency Response Organization (ERO) augmentation. The on-shift staffing analysis fulfills requirements of 10 CFR 50 Appendix E.IV.A.9.
- Site Evacuation Time Estimate (ETE) Study – The ETE study defines the plume exposure (~10 mile) Emergency Planning Zone (EPZ). It documents the population within defined areas of the EPZ and establishes evacuation routes and ETEs for different scenarios for those populations. The ETE study fulfills requirements of 10 CFR 50 Appendix E.IV paragraphs 2-7.
- Site Protective Action Recommendation (PAR) Technical Basis Manual (TBM) – The PAR TBM document the bases used to develop site-specific protective action recommendation procedures. The PAR TBM fulfills requirements of 10 CFR 50 Appendix E.IV paragraph 3.
- Site Alert and Notification System (ANS) Design Report – The ANS design report is the FEMA-approved document that contains the specific design, testing, and maintenance of the system. The ANS design report fulfills requirements of 10 CFR 50 Appendix E.IV.D.3.

Except for the NextEra Common Emergency Plan, the above documents are maintained and revised separately but as part of the site emergency plan.

Any changes made that may affect or alter the emergency plan program or bases documents described above will be evaluated and made using the change process in 10 CFR 50.54(q) and Regulatory Guide 1.219.

There are supporting and complementing emergency plans, including those of federal agencies; the states of Florida, New Hampshire, Wisconsin, and Massachusetts; and local government agencies that support the NextEra sites. These plans contain coordinated emergency response and preparedness instructions for declared emergencies. Each plan has been prepared and is maintained by its respective organization, and is coordinated as appropriate with the other plans.

A: Assignment of Responsibility

Primary responsibilities for emergency response by the nuclear facility licensee, and by state and local organizations within the EPZs have been assigned, the emergency responsibilities of the various supporting organization have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

Regulatory References: 10 CFR 50.47(b)(1); 44 CFR 350.5(a)(1);
10 CFR Part 50 Appendix E.IV.A

A.1	The federal, state, local, tribal, licensee, and other private sector organizations that comprise the overall response for the EPZs are identified.

Element A.1.a.1 below provides a summary of NextEra response organization responsibilities as they relate to the overall concept of operations for event response. A detailed description of the NextEra Emergency Response Organization (ERO) is contained in Section B.

The elements below identify the federal, Offsite Response Organizations (OROs), and other organizations that encompass the overall response organization for an event at a NextEra site.

A.1.a	The organizations having an operational role specify their concept of operations and relationship to the total effort.

1. NextEra

   Emergencies are initially declared and responded to by the on-shift staff under the direction of the Shift Manager. Augmentation of the shift ERO is required at the Alert emergency classification level or higher, and discretionary at the Unusual Event emergency classification level. The ERO has the capability to expand or contract to meet the needs of the emergency.

   When the emergency response facilities are staffed the augmenting ERO relieves the on-shift personnel of emergency response functions not directly associated with unit operations. NextEra overall responsibilities for event response are as follows:

   - Recognize, classify and declare an emergency.
   - Notify appropriate NextEra personnel, federal, and OROs.
   - Request additional support from federal, ORO, and private organizations.
   - Establish and maintain effective communications with onsite and offsite entities.
   - Continuously assess the consequences of the accident, and periodically communicate response status and assessment information to the appropriate groups and authorities.
   - Take protective actions onsite and recommend protective actions to offsite authorities.
   - Monitor and control radiation exposure of personnel responding during an emergency.
   - In conjunction with OROs, provide emergency information to the media and public through periodic media briefings and media statements.

2. Federal Organizations

   Control, responsibility and interface of federal organizations is governed by the National Response Framework (NRF) and the Nuclear/Radiological Incident Annex to the NRF when they are called to respond to an event at a nuclear power plant. The NRC acts as the lead federal agency with regard to technical matters during a nuclear incident, including providing radiological assistance.

3. Offsite Response Organizations

   The NextEra ERO coordinates response actions with OROs. Interface between the site and the OROs is governed by their respective emergency plans, which are developed and maintained in coordination with the NextEra emergency plan. OROs are described in the site annexes.

A.1.b	Each organization's emergency plan illustrates these interrelationships in a block diagram.

Refer to Section B.4 for the interrelationships between the NextEra ERO, federal response organizations, and the OROs.

A.1.c	Each organization identifies the individual, by title/position, who will be in charge of the emergency response.

The title of the individual who will be in charge of the emergency response is provided in Elements B.2 and B.2.a.

A.2	References to the applicable acts, codes, or statutes that provide the legal basis for emergency response-related authorities, including those that delegate responsibility and authority to state, local, and tribal governments are included. Each emergency plan indicates who may declare a "State of Emergency" and the powers that ensue.

This element is not applicable to the licensee emergency plan.

A.3	Each organization specifies the key individual(s), by title/position, responsible for the following functions, applicable to their organizations: command and control, alerting and notification, communications, public information, accident assessment, public health and sanitation, social services, fire and rescue, traffic control, emergency medical services, law enforcement, transportation, protective response (including authority to request federal assistance and to initiate other protective actions), and radiological exposure control.

Refer to Element B.1.a and Table B-1 for a list of key individuals responsible for command and control, alerting and notification, communications, public information, accident assessment, protective response (including authority to request federal assistance and to initiate other protective actions), and radiological exposure control.

A.4	Written agreements with the support organizations having an emergency response role within the EPZs are included. The agreements describe the concept of operations, emergency measures to be provided, mutually acceptable criteria for their implementation, and arrangements for exchange of information.

Assistance will be provided, as necessary, by federal response organizations and OROs that are mandated by charter, regulation or law to protect public health and safety. Federal response organizations and OROs cooperate with NextEra and have developed radiological emergency plans and procedures in an integrated manner. Additional support agreements (Letter of Agreement – LOA/Memorandum of Understanding – MOUs) are not required with these agencies.

Support agreements are necessary when an organization or individual is expected to provide assistance to NextEra and is not required otherwise to do so. To that extent, LOAs have been developed between NextEra and several entities to provide emergency response support and services consistent with this plan.

Specifically, the agreement minimum content includes the following:

- A description of the concept of operations, meaning the mutually accepted criteria for implementation.
- When the support will be provided (as a minimum, the agreement states that the support provider will offer its services during an emergency at the affected site(s), including during a Hostile Action).
- Identification of the support to be provided.
- Arrangements for exchange of information during event support.

A contract/purchase order with a private contractor is considered acceptable in lieu of a LOA for the specified duration of the contract. The current signature copies of applicable LOAs and contracts are listed in the site annexes and are maintained locally on file.

A.5	Each principal response organization is capable of continuous operations for a protracted period. The principal response organization specifies the individual, by title/position, who is responsible for ensuring continuity of resources (technical, administrative, and material).

NextEra maintains a depth to the ERO that is capable of providing continuous (24 hour/day) operation throughout a declared emergency by providing relief of the on-shift and augmenting ERO positions by qualified individuals. The shift rotation and ERO staffing for protracted ERO operations is designated by the Emergency Director.

The Emergency Director is the individual responsible for assuring continuity of resources (technical, administrative, and material) within the ERO.

B: Emergency Response Organization

On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.

Regulatory References: 10 CFR 50.47(b)(2); 44 CFR 350.5(a)(2);
10 CFR Part 50, Appendix E.IV.A

B.1	The emergency plan specifies how the requirements of 10 CFR 50.47(b)(2) and the applicable sections of Appendix E to 10 CFR Part 50 are met.

1. 10 CFR 50.47(b)(2) Compliance

   In December of 2019, the NRC issued NUREG-0654 R2, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants. The scope of NUREG-0654 R2 states “NPP applicants and licensees may voluntarily use the guidance in this document to demonstrate compliance with the underlying NRC regulations.” The NextEra emergency plan and site annexes are based on the criteria provided in NUREG-0654 R2 as approved by the NRC.

2. 10 CFR 50 Appendix E Compliance

   Refer to the 10 CFR 50 Appendix E.IV.A cross-reference in Appendix 3 of this emergency plan.

B.1.a	The site-specific emergency response organization (ERO) is developed. Note that while other site programs, such as operations, fire response, rescue and first aid, and security, may be controlled via other licensing documents, it is only when these personnel are assigned EP functions that they become part of this regulatory standard. Consideration is given to ensure that EP functions are not assigned to individuals who may have difficulties performing their EP function(s) simultaneously with their other assigned (non-EP) duties. Appendix E to 10 CFR Part 50 requires licensees to perform an on-shift staffing analysis to ensure on-shift staff can support the EP functions assigned, as well as other assigned duties.

A description of the normal site operating organization is contained in each sites’ UFSAR (typically Chapter 13).

The requirements for on-shift operations staff, security force staff, and fire brigade/first aid staff are controlled by Technical Specifications and other licensing and administrative documents. Positions from these departments are described in the emergency plan only when assigned an emergency preparedness function that is performed during an emergency.

Site specific on-shift staffing analysis reports are developed in accordance with 10 CFR 50 Appendix E.IV.A.9 and NEI 10-05. The site specific on-shift staffing analysis reports are maintained as part of the site emergency plans and are referenced in the site annexes.

The on-shift ERO and minimum augmenting ERO is composed of the following positions, which are assigned responsibilities within the following functions (organized by facility):

1. Control Room (CR)

   A. Shift Manager
      - Organizational Interface and Coordination
      - Command and Control
      - Facility/Group Management and Supervision
      - Contact and Use of External Support Services
      - Use of Medical, Fire and Law Enforcement Support
      - NRC Notification and Communications
      - Event Classification
      - ERO Notification
      - State and Local Event Notification
      - ERF Communications
      - Accident Detection and Assessment
      - Effluent Release and Dose Assessment
      - OSC Team Priorities, Dispatch and Control
      - Site Assembly and Accountability
      - Site Evacuation
      - ERO Radiological Protection
      - Offsite Protective Action Recommendations
      - Emergency Exposure
      - First Aid
      - Event Termination

   B. Radiation Protection Technician
      - Radiological Monitoring Activities
      - ERO Radiological Protection
      - Emergency Exposure
      - Contamination Control Measures

   C. Radiation Protection Qualified Individual (RPQI)
      - Radiological Monitoring Activities
      - ERO Radiological Protection
      - Emergency Exposure
      - Contamination Control Measures

D. Security Shift Supervisor

- Organizational Interface and Coordination
- Use of Medical, Fire and Law Enforcement Support
- NRC Notification and Communications
- Site Assembly and Accountability
- Site Evacuation

E. Shift Technical Advisor (STA)

Note – Assigned as a collateral duty in accordance with Technical Specification.

- Accident Detection and Assessment
- Core Damage Assessment

F. Shift Classification Advisor

Note – Assigned as a collateral duty to an on-shift SRO other than the Shift Manager.

- Event Classification
- State and Local Event Notification
- Accident Detection and Assessment
- Offsite Protective Action Recommendations

G. Shift Communicator

Note – Assigned as a collateral duty to an on-shift position other than the RPT or RPQI.

- NRC Notification and Communications
- ERO Notification
- State and Local Event Notification
- OSC Team Priorities, Dispatch and Control

H. Shift Dose Assessor

Note – Assigned as a collateral duty to any on-shift position.

- Effluent Release and Dose Assessment

2. Technical Support Center (TSC)

A. Site Emergency Director

- Organizational Interface and Coordination
- Federal Assistance
- Continuous Emergency Response Operations
- Command and Control
- Facility/Group Management and Supervision
- Contact and Use of External Support Services

- Integration of Offsite Agency Personnel in the ERF
- NRC Notification and Communications
- Event Classification
- State and Local Event Notification
- ERF Communications
- Facility Activation
- Backup and Alternative Facilities
- Accident Detection and Assessment
- OSC Team Priorities, Dispatch and Control
- Site Assembly and Accountability
- Site Evacuation
- ERO Radiological Protection
- Offsite Protective Action Recommendations
- Emergency Exposure
- Event Termination
- Recovery

B. TSC Classification Advisor
- Facility/Group Management and Supervision
- Event Classification
- State and Local Event Notification
- ERF Communications
- Facility Activation
- Facility Operation
- Accident Detection and Assessment
- ERO Radiological Protection
- Offsite Protective Action Recommendations

C. Reactor Engineer – Remote position supervised by Classification Advisor
- Facility Operation
- Accident Detection and Assessment
- Core Damage Assessment

D. Electrical/I&C Engineer – Remote position supervised by Classification Advisor
- Facility Operation
- Accident Detection and Assessment

E. Mechanical Engineer – Remote position supervised by Classification Advisor
- Facility Operation
- Accident Detection and Assessment

F. ORO Communicator
- State and Local Event Notification
- ERF Communications

G. ENS Communicator
- NRC Notification and Communications
- ERF Communications

H. TSC Radiation Protection Coordinator
- Facility/Group Management and Supervision
- Contact and Use of External Support Services
- Event Classification
- State and Local Event Notification
- ERF Communications
- Facility Activation
- Facility Operation
- Backup and Alternative Facilities
- Accident Detection and Assessment
- Effluent Release and Dose Assessment
- OSC Team Priorities, Dispatch and Control
- Site Evacuation
- ERO Radiological Protection
- Offsite Protective Action Recommendations
- Emergency Exposure
- Contamination Control Measures
- Decontamination
- Recovery

I. Security Liaison
- Organizational Interface and Coordination
- Use of Medical, Fire and Law Enforcement Support
- NRC Notification and Communications
- Backup and Alternative Facilities
- OSC Team Priorities, Dispatch and Control

- Site Assembly and Accountability
- Site Evacuation

3. Operations Support Center (OSC)

A. Lead OSC Supervisor
- Facility/Group Management and Supervision
- ERF Communications
- Facility Activation
- Facility Operation
- Backup and Alternative Facilities
- OSC Team Priorities, Dispatch and Control
- Site Evacuation
- ERO Radiological Protection
- Radiation Protection Briefings
- First Aid
- Recovery

B. Fix-It-Now (FIN) Supervisor
- Facility/Group Management and Supervision
- Contact and Use of External Support Services
- Facility Activation
- Backup and Alternative Facilities
- Accident Detection and Assessment
- OSC Team Priorities, Dispatch and Control
- Site Assembly and Accountability

C. Maintenance (Mechanical, Electrical and I&C)
- OSC Team Priorities, Dispatch and Control

D. Radiation Protection Technician
- Radiological Monitoring Activities
- OSC Team Priorities, Dispatch and Control
- ERO Radiological Protection
- Emergency Exposure
- Contamination Control Measures
- Decontamination
- Radiation Protection Briefings

E. Radiation Protection Qualified Individual

- Radiological Monitoring Activities
- OSC Team Priorities, Dispatch and Control
- ERO Radiological Protection
- Emergency Exposure
- Contamination Control Measures
- Decontamination

4. Emergency Operations Facility (EOF)

A. EOF Manager

- Organizational Interface and Coordination
- Continuous Emergency Response Operations
- Facility/Group Management and Supervision
- Contact and Use of External Support Services
- Integration of Offsite Agency Personnel in the ERF
- Dispatch and Control of Offsite EOC Liaisons
- ERF Communications
- Facility Activation
- Facility Operation
- Site Evacuation
- Recovery

B. EOF Radiation Protection Coordinator

- Facility/Group Management and Supervision
- Integration and Use of the Radiological Laboratory
- Facility Operation
- Accident Detection and Assessment
- Effluent Release and Dose Assessment
- Radiological Monitoring Activities
- Offsite Protective Action Recommendations
- Radiation Protection Briefings
- Post-Accident Environmental Sampling

C. Field Monitoring Team Technician

- Facility Activation
- Radiological Monitoring Activities

D. Field Monitoring Team Driver
- Facility Activation
- Radiological Monitoring Activities

E. EOF Dose Assessor
- NRC Notification and Communications
- ERF Communication
- Facility Activation
- Facility Operation
- Effluent Release and Dose Assessment
- Offsite Protective Action Recommendations

F. Remote Dose Assessor – Remote position supervised by EOF RP Coordinator
- Effluent Release and Dose Assessment
- Offsite Protective Action Recommendations

5. Joint Information System (JIS) / Joint Information Center (JIC)

NextEra Corporate Communications and key business units maintain a staff to operate a Joint Information System.

Refer to Sections H.5 and G for JIC/JIS details.

A. Site JIS Manager
- Facility/Group Management and Supervision
- Integration of Offsite Agency Personnel in the ERF
- ERF Communications
- Media Briefings
- Facility Activation

B. Site JIS Coordinator
- Media Briefings
- Accommodation of News Media Personnel
- Facility Activation
- Facility Operation

C. Remote JIS Manager– Remote interface position to the corporate JIS
- Facility/Group Management and Supervision
- ERF Communications
- Media Statements
- Media Briefings

- Accommodation of News Media Personnel
- Media Monitoring
- Rumor Control

B.1.b	The remote emergency response organization (ERO) positions are defined. Resources necessary to perform the functions and tasks assigned to the remote response positions, as well as a backup capability, are described.

The NextEra ERO includes remote response positions. Remote response positions are not required to physically manipulate plant equipment or take other physical actions at the site. Remote response positions are provided the resources to collaborate with ERO personnel in their assigned emergency facility. These resources provide;

- the ability to communication audio/visually between emergency facility and the remote responder.
- the ability to access procedures, information and data.
- the ability to share screens/documents.

ERO members responding remotely to an emergency are capable of performing all functions and tasks assigned to their position, including support provided to other ERO members, as described in the emergency plan and implementing procedures. These positions support the on-shift staff prior to activation of the TSC and EOF.

1. Remote Responders Assigned to the TSC (refer to Section B.1.a.2)

   The Reactor Engineer, Electrical/I&C Engineer, and Mechanical Engineer ERO minimum staff positions are remote responders assigned to the TSC.

   NextEra provides a corporate facility that provides the equivalent resource capability as a backup for the remote ERO engineering positions.

2. Remote Responders Assigned to the EOF (refer to Section B.1.a.4)

   The Remote Dose Assessor ERO minimum staff position is assigned to the EOF.

   NextEra provides a corporate facility that provides the equivalent resource capability as a backup for the Remote Dose Assessor position. Additionally, the Shift Dose Assessor from another NextEra site are capable of supporting the affected site as a backup to the Remote Dose Assessor position.

B.2	An individual is designated as the on-shift emergency coordinator (individual title may vary) who has the authority and responsibility to immediately and unilaterally initiate any emergency response measures, including approving protective action recommendations (PARs) to be disseminated to authorities responsible for implementing offsite emergency response measures.

The Emergency Director ERO position has overall command and control of a declared emergency at a NextEra site.

The Shift Manager is the individual who is on-shift at all times and assumes the role of Emergency Director upon emergency declaration. As Emergency Director, the Shift Manager has the authority and responsibility to immediately and unilaterally initiate any emergency actions, including providing protective action recommendations (PARs) to authorities responsible for implementing offsite emergency measures,

The Shift Manager maintains overall command and control until relieved.

The remote positions (Remote Dose Assessor and engineers) report to the Shift Manager until their associated response facility is activated.

B.2.a	The functional responsibilities assigned to the ERO are established and the responsibilities that may not be delegated to other members of the ERO are clearly specified in the emergency plan.

The Site Emergency Director will relieve the Shift Manager of overall Command and Control and the other key functions listed in Table B-1 at an Alert or higher emergency classification level.

Non-delegable responsibilities include the following:

- Event declaration
- ORO and NRC Notification
- PARs for the general public
- Emergency Exposure (Dose limits and KI)

Approving departures from license conditions per 10 CFR 50.54(x) transition from the Shift Manager to the Site Emergency Director upon transfer of command and control.

B.3	A table is developed depicting the site-specific on-shift staffing plan, as well as the ERO staffing augmentation plan.

The ERO is composed of on-shift personnel located at the site at all times, and augmenting personnel (responding to their assigned emergency facility or remotely).

Refer to Table B-1 for the on-shift and augmenting ERO staffing plan.

Table B-1: On-Shift and Augmenting ERO Staffing Plan

Function	On-Shift	TSC/OSC/JIS/Remote		EOF/JIC[f]/JIS/Remote
		Alert – 60 min.	Alert – 90 min.	Alert – 90 min.
Command and Control • Provide overall ERO command and control • Approve ECLs and PARs • Authorize personnel dose extensions	(1) Shift Manager	Not applicable	(1) Site Emergency Director–TSC	Not applicable
Facility Management • Facility/Group Management and Supervision	Not applicable	Not applicable	Not applicable	(1) EOF Manager–EOF
Emergency Classifications • Evaluate plant conditions and recommend ECLs	Shift Classification Advisor[a]	Not applicable	(1) TSC Classification Advisor–TSC	Not applicable
Communications • Communicate ECLs and PARs to OROs, including the NRC	Shift Communicator[b]	Not applicable	(1) ORO Communicator–TSC (1) ENS Communicator–TSC	Not applicable
Supervision of RP Staff and Site Radiation Protection • Evaluate and assess plant and offsite rad data in the development of onsite protective actions and offsite PARs • Recommend onsite protective actions and offsite PARs • Direct all RP activities including FMTs • Provide information to personnel communicating offsite PARs to OROs	Shift Manager[b]	Not applicable	(1) TSC RP Coordinator–TSC	(1) EOF RP Coordinator–EOF
Dose Assessments/ Projections • Perform dose assessments and projections and provide input to PAR decision-maker	Shift Dose Assessor[b]	(1) Remote Dose Assessor–Remote	Not applicable	(1) EOF Dose Assessor–EOF
Radiation Protection • Provide RP coverage for accessing unknown radiological environments • Control dosimetry and RCA access • Provide in-plant surveys	(1) RP Technician (1) RP Qualified Individual	Not applicable	(3) RP Technician–OSC (2) RP Qualified Individual–OSC	Not applicable

Function	On-Shift	TSC/OSC/JIS/Remote		EOF/JIC[f]/JIS/Remote
		Alert – 60 min.	Alert – 90 min.	Alert – 90 min.
Field Monitoring Teams[c] • Provide environmental surveys (inside and outside the Protected Area)	Not applicable	Not applicable	Not applicable	(2) FMT Technician (2) FMT Driver
Engineering • Provide engineering coverage related to the specific discipline of the assigned engineer	STA[b]	(1) Reactor Engineer–Remote (1) Electrical/I&C Engineer–Remote (1) Mechanical Engineer–Remote	Not applicable	Not applicable
Supervision of Repair Team Activities • Direct in-plant event response and repair activities	Not applicable	Not applicable	(1) Lead OSC Supervisor–OSC (1) FIN Supervisor–OSC	Not applicable
Repair Team Activities • Provide support for event mitigation and equipment repair	Not applicable	Not applicable	(1) Mechanic–OSC (1) Electrician–OSC (1) I&C Technician–OSC	Not applicable
Security • Coordinate security related activities	(1) Security Shift Supervisor Security staff[d]	Not applicable	(1) Security Liaison–TSC	Not applicable
Media Information • Manage and coordinate media information related to the event	Not applicable	JIS staff[e] –Remote	Not applicable	(1) Site JIS Manager–JIC (1) Site JIS Coordinator–JIC (1) Remote JIS Manager–Remote
Information Technology (IT) • Ensure IT equipment is operable.	(g)	(g)	(g)	(g)
Totals	**4**	**4**	**16**	**10**

(a) Assigned as a collateral duty to an on-shift SRO other than the Shift Manager.

(b) Assigned as a collateral function.

(c) FMTs operate within the EPZ as directed by the EOF RP Coordinator.

(d) Per the site specific security plan.

(e) JIS per NextEra Communications Emergency Response Plan. Does not need to be performed in the JIC, but the JIS function needs to be established at this point.

(f) ERO staffing of the JIC is concurrent with other ERFs (although facility activation is coordinated with the ORO public information personnel and has no time requirement).

(g) IT personnel monitor critical digital assets remotely and respond any time an issue is identified.

B.4	The interfaces between and among the licensee functional areas of emergency activity, local services support, and state, local, and tribal government organizations are identified. The information includes all licensee emergency response facilities. A block diagram is preferred for ease of use, but not required.

Figure B.4 identifies the interfaces between NextEra ERFs, NRC, OROs, and local support organizations.

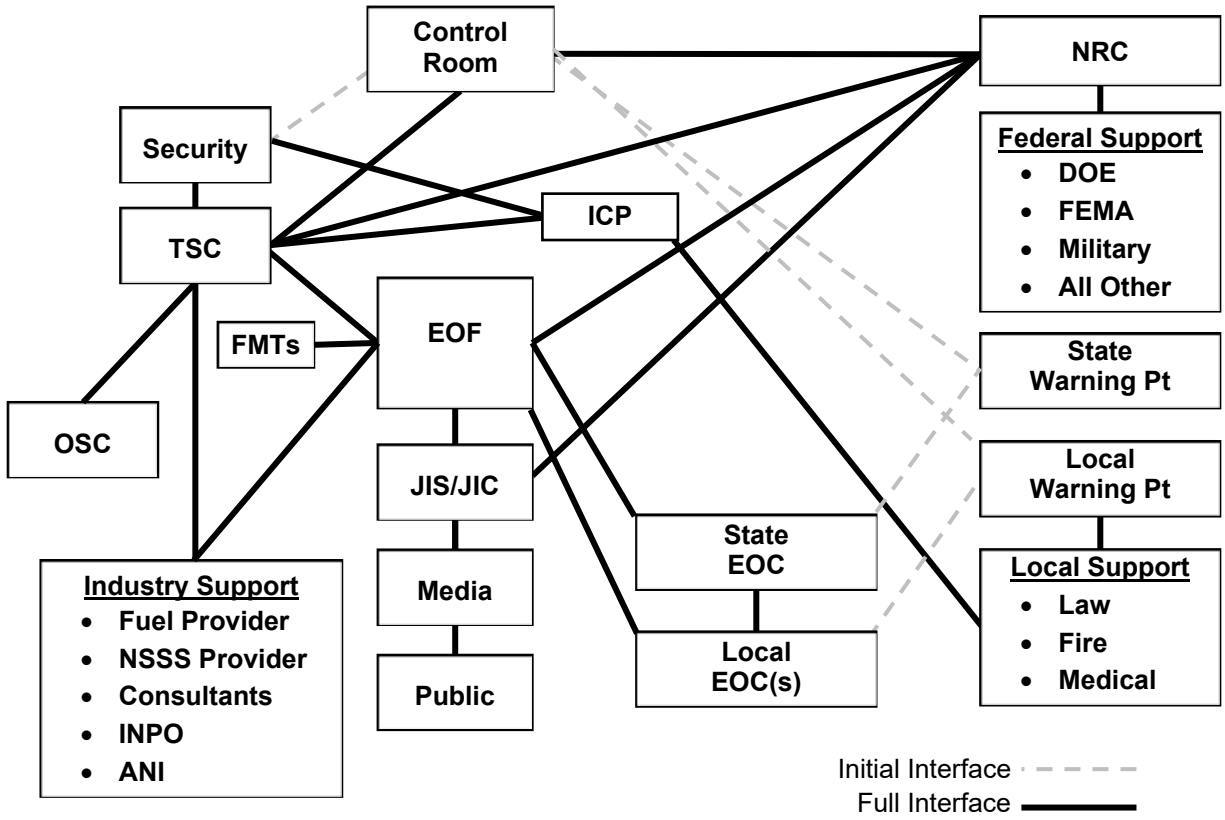

Figure B.4: Interrelationship of Emergency Response Organizations

Dependent upon the emergency, a near or on-site Incident Command Post (ICP) is established in coordination with local support organizations. The ICP will interface with the site security, and NextEra response facilities. Based on the event, NextEra provides the appropriate liaison (Security, Operations or Radiation Protection) to the ICP.

B.5	The external organizations, including contractors, that may be requested to provide technical assistance to and augmentation of the ERO, as applicable, are specified.

1. Institute of Nuclear Power Operations (INPO)

   INPO has an emergency response plan that enables it to provide the assistance in locating sources of emergency personnel, equipment, and operational analysis.

2. Other External (non-NextEra) Support Organizations

   Other external (non-NextEra) support organizations are not used to provide additional personnel for positions on the NextEra ERO or to perform an operational role. Other external (non-NextEra) support organizations that may be requested to provide technical assistance are described in the site annexes.

C: Emergency Response Support and Resources

Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate state and local staff at the licensee's EOF have been made, and other organizations capable of augmenting the planned response have been identified.

Regulatory References: 10 CFR 50.47(b)(3); 44 CFR 350.5(a)(3);
10 CFR Part 50, Appendix E, Sec. IV.E

C.1	Emergency response support and resources provided to the licensee's EOF, as agreed upon, are described.

The EOF contains dedicated work areas and logistics resources for federal and, depending on the site, state response personnel. Federal and state personnel respond to the EOF in accordance with their emergency response plans and procedures.

C.2	Provisions made for additional emergency response support and resources are described and include the following:

C.2.a	The individual(s), by title/position, authorized to request emergency response support and resources from responding organizations.

The individual authorized to request assistance and resources from responding organizations is the Emergency Director.

Refer to Element B.2.a for greater detail regarding command & control.

C.2.b	(1) Each organization from which emergency response support and/or resources may be requested, (2) the circumstance(s) in which the emergency response support and/or resources would be required, (3) the process for requesting needed emergency response support and/or resources, (4) categories of capabilities and/or resources expected to be provided, (5) when the expected emergency response support and/or resources would be available once requested, and (6) how integration would occur.

Refer to Elements A.1.a and A.4 for the description and details of the provisions made for additional assistance and resources.

C.2.c	Coordination of NPP site access and support for external organizations that have agreed to provide requested emergency response support and resources.

Site access is controlled at all times by the Security organization in accordance with the site security plan and procedures. The TSC Security Liaison is responsible for coordination with site security personnel when site access is needed for non-badged response personnel at an Alert or higher emergency classification level.

C.2.d	Agreements between licensees and local agencies for law enforcement, medical and ambulance services, fire, hospital support, and other support.

Local support organizations may be called to assist onsite for events requiring firefighting, medical, or law enforcement. Immediate assistance with firefighting, medical, and law enforcement at the sites is initiated using pre-established site specific communications systems.

Agreements have been formally developed and documented through memorandums of understanding (MOUs), contracts, and/or letters of agreement (LOAs).

Refer to Element A.4 for details on agreements.

C.3	The capability of each principal organization to coordinate with other principal organizations leading the incident response is described.

Coordination of response actions and exchange of information among Emergency Directors from appropriate response organizations is provided via pre-designated communication links between NextEra, the NRC, and ORO EOCs.

C.4	Radiological laboratories, their general capabilities, and expected availability to provide radiological monitoring analysis services that can be used in an emergency are described. Plans to augment the identified radiological laboratories are described.

NextEra has radiological laboratories located at each site. The site laboratories are the central point for receipt and analysis of onsite samples and includes equipment for chemical and radiological analyses. The laboratories provide analyses of samples from plant systems. Environmental monitoring sample analysis is also performed on-site or arrangements are made with off-site facilities.

Site specific details for the radiological laboratories are described in the site annexes.

C.5	Arrangements are described for integrating the licensee’s response with the NRC Headquarters and regional incident response centers and, when dispatched, the NRC’s site response team.

The Site Emergency Director in the TSC and the EOF Manager are the initial primary contact positions for the NRC site response team personnel sent to those facilities.

Consistent with 10 CFR 50 Appendix E, areas within the EOF and TSC are established for NRC site response teams that include:

- Space for members of an NRC site team.
- Space for conducting briefings with emergency response personnel.
- Communication with other NextEra and offsite emergency response facilities.
- Access to plant data and radiological information.
- Access to office equipment and supplies.

C.5.a	The activation process for the NRC's emergency response data system (ERDS) during an emergency is described.

When an emergency occurs, ERO personnel will ensure ERDS operation as soon as possible but not later than one hour after an alert or higher emergency classification level is declared, in accordance with 10 CFR 50.72(a)(4).

C.5.b	Provisions to continuously maintain open communications lines with the NRC, when requested, are described.

The ERO is capable of maintaining continuous communications with the NRC. When requested, open communication lines will be staffed by knowledgeable personnel to ensure efficient and effective information flow.

D: Emergency Classification System

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and state and county response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Regulatory References: 10 CFR 50.47(b)(4); 44 CFR 350.5(a)(4);
10 CFR Part 50 Appendix E.IV.B and C

D.1	A standard emergency classification and action level scheme is established and maintained. The scheme provides detailed EALs for each of the four ECLs in Section IV.C.1 of Appendix E to 10 CFR Part 50.

NextEra has established and maintains a standard emergency classification and emergency action level scheme. The EAL Technical Basis Document is referenced in the site annexes. The spectrum of postulated emergency events is categorized into the following four (4) emergency classification levels (ECLs):

- Unusual Event
- Alert
- Site Area Emergency
- General Emergency

The four ECLs are described as follows:

1. Unusual Event (UE)

   Events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

2. Alert

   Events are in progress, or have occurred, which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life-threatening risk to site personnel or damage to site equipment because of hostile action. Any releases are expected to be small fractions of the EPA Protective Action Guideline exposure levels.

3. Site Area Emergency (SAE)

   Events are in progress or have occurred which involve actual or likely major failures of plant functions needed for protection of the public or hostile action that results in intentional damage or malicious acts; 1) toward site personnel or equipment that could lead to the likely failure of or; 2) that prevent effective access to, equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA PAG exposure levels beyond the site boundary.

4. General Emergency (GE)

Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or hostile actions that result in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA PAG exposure levels offsite for more than the immediate site area.

D.1.a	The EALs are developed using guidance provided or endorsed by the NRC that is applicable to the reactor design.

Emergency Action Levels (EALs) at NextEra sites have been developed in accordance with NRC endorsed guidance. This guidance and the NextEra site EAL schemes have been approved by the NRC.

If the entire EAL scheme is to be changed, then the new EAL scheme will be submitted to the NRC for approval prior to implementation.

D.1.b	The initial emergency classification and action level scheme is discussed and agreed to by the licensee and OROs, and approved by the NRC. Thereafter, the scheme is reviewed with OROs on an annual basis.

The NRC approved NextEra EAL schemes have been agreed to by the OROs associated with the site.

The current EAL scheme is reviewed with the sites' respective OROs on an annual basis.

D.2	The capability to assess, classify, and declare the emergency condition within 15 minutes after the availability of indications to NPP operators that an EAL has been met or exceeded is described.

NextEra has and maintains the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an EAL threshold has been met or exceeded. Details for classification timeliness criteria are documented in the site specific EAL Technical Bases Document.

D.3	A summary of emergency response measures to be taken for each ECL is provided. The detailed emergency response measures are described in implementing procedures.

NextEra maintains procedures that include immediate actions to be taken that are consistent with any declared ECL.

Emergency Operating Procedures provide instructions to Control Room personnel to assist in mitigating the consequences of a broad range of accidents and multiple equipment failures. These procedures are based on guidelines developed by the owners' groups.

Emergency plan implementing procedures provide instructions to ERO personnel for response activities primarily associated with assessment, classification, notification and protective actions. Other functions such as communications, termination and recovery are also addressed.

A summary of response actions taken at each ECL is as follows:

1. Unusual Event (UE)
   - Initial and follow-up event notification to the OROs and NRC.
   - Notification of ERO personnel. This is an information only notification and does not require activation of emergency facilities or response organizations. Any Emergency Response Facility (ERF) may be activated at the discretion of the Emergency Director.
2. Alert
   - Initial and follow-up event notification to the OROs and NRC.
   - Augmentation of the shift ERO (refer to Element A.1.a) by activating the Technical Support Center, Operations Support Center and Emergency Operations Facility.
   - The Joint Information System shall be established at this ECL, with Joint Information Center activation determined in coordination with the offsite agencies.
   - If a release is occurring, monitoring teams are available for dispatch and offsite dose projections are developed.
3. Site Area Emergency
   - Initial and follow-up event notification to the OROs and NRC.
   - Augmentation of the shift ERO by activating the TSC, OSC and EOF if not previously performed.
   - The Joint Information System is in operation or Joint Information Center is staffed by NextEra ERO (JIC activation determined in coordination with the offsite agencies).
   - Implementation of onsite protective actions (refer to Section J).
   - If a release is occurring, monitoring teams are available for dispatch and offsite dose projections are developed.
   - Offsite precautionary actions may be recommended under certain conditions (as required by site specific OROs).
4. General Emergency
   - Initial and follow-up event notification to the OROs and NRC.
   - Augmentation of the shift ERO by activating the TSC, OSC and EOF if not previously performed.
   - The Joint Information System is in operation or Joint Information Center is staffed by NextEra ERO (JIC activation determined in coordination with the offsite agencies).
   - Implementation of onsite protective actions (refer to Section J) if not previously performed.
   - If a release is occurring, monitoring teams are available for dispatch and offsite dose projections are developed.
   - Offsite protective action recommendations are communicated to the OROs and NRC.

D.4	Emergency response measures based on the ECL declared by the licensee and applicable offsite conditions are described.

This element is not applicable to the licensee emergency plan.

E: Notification Methods and Procedures

Procedures have been established for notification, by the licensee, of state and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway EPZ have been established.

Regulatory References: 10 CFR 50.47(b)(5); 44 CFR 350.5(a)(5);
10 CFR Part 50 Appendix E.IV.A, C, D and E

E.1	The mutually agreeable process for direct and prompt notification of response organizations, aligned with the emergency classification and action level scheme, is described.

1. ERO Notification

   The Emergency Director will direct or perform notification of the ERO for all emergency classification levels. ERO personnel report to their assigned emergency response facilities as directed. In the event of a security threat, personnel may be instructed to respond to alternative facilities, or seek cover if on-site.

   The means for alerting and notifying ERO members are described in Element F.1.c.

2. ORO Event Notification

   NextEra, in cooperation with the OROs, has established mutually agreeable content, methods and procedures for notification of OROs. When an ECL is initially declared, or upgraded, or changes are made to PARs, a notification to the OROs is made within 15 minutes.

   Receipt location of notification messages is site specific. ORO notification locations are described in the site annexes.

3. NRC Event Notification

   NextEra will notify the NRC using ENS as soon as possible after notification of the OROs, and not later than 60 minutes after event declaration.

   An accelerated call to the NRC will be made immediately after notification of local law enforcement agencies (LLEAs), or within about 15 minutes of the recognition of the security-based threat (discovery of an imminent threat or attack against the site), to ensure the NRC is notified of safeguards events. The information provided in the accelerated NRC notification will be limited to the following:

   - Site name.
   - ECL if determined prior to the accelerated notification.
   - Nature of the threat and the attack status.

E.1.a	Provisions for notification of response organizations are established, including the means for verification of messages.

The provisions for notification of response organizations are described above in Element E.1.

Notifications to OROs include a means of verification or authentication within the automated system or by providing call back verification phone numbers.

E.1.b	The capability to notify responsible OROs within 15 minutes and the NRC within 60 minutes is described.

The capability to notify offsite response organizations and the NRC within the required time periods is described above in Element E.1.

E.2	The alert and notification systems (ANSs) used to alert and notify the general public within the plume exposure pathway EPZ and methods of activation are described. This description includes the administrative and physical means, the time required for notifying and providing prompt instructions to the public within the plume exposure pathway EPZ, and the organizations or titles/positions responsible for activating the system.

Detailed ANS information is maintained in the ANS design report for each site as listed in the site annexes.

E.3	The licensee, in conjunction with state, local, and tribal organizations, establishes the contents of the initial and follow-up emergency notifications to be sent from the NPP.

NextEra sites and OROs have established the content of the initial notification message to be used during an emergency. Minimum content of the initial notification will include the following:

- The site’s name
- Time of event
- The ECL
- Protective Action Recommendation (PAR)
- Whether a release is taking place

In conjunction with OROs, NextEra sites have established the content of the follow-up messages, which will include additional information regarding event conditions and response actions.

E.4	Each organization establishes the contents of the initial and follow-up messages to the public including, as applicable, instructions for protective actions.

This element is not applicable to the licensee emergency plan.

E.5	Provisions are made to provide timely supplemental information periodically throughout the radiological incident to inform the public.

ORO procedures provide for initial and follow-up messages to the public including instructions for protective actions, if required. NextEra will assist with establishment appropriate instructions and message content when requested by the ORO.

F: Emergency Communications

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

Regulatory References: 10 CFR 50.47(b)(6); 44 CFR 350.5(a)(6);
10 CFR Part 50, Appendix E.IV.E

F.1	Each principal response organization establishes redundant means of communication and addresses the following provisions:

F.1.a	Continuous capability for notification to, and activation of, the emergency response network, including a minimum of two independent communication links.

Each site maintains communications systems that are designed to facilitate normal and emergency communication. Refer to Chapter 9 of the UFSARs for descriptions of the primary site communications systems.

Provisions exist for continuous capability of communications with OROs and the NRC. Systems available for internal and external communications include:

- Telephone Systems
- Public Address System
- Radio Communications
- Cellular Telephones
- Satellite Telephones
- Local and Wide Area Networks
- Data Systems

Cellular and satellite telephones provide communications capability should the main telephone systems lose power.

Site specific communications system beyond the above are described in the site annexes.

F.1.b	Communication with applicable organizations to include a description of the methods that may be used when contacting each organization.

The methods for notification of response organizations are described in Elements E.1 and F.1.a.

F.1.c	Systems for alerting or activating emergency personnel in each response organization.

Personnel within the Protected Area are notified of the emergency classification via the public address system. The sounding of alarms and announcement of the emergency classification and other pertinent data relating to the emergency classification are made over the public address system.

Notification of personnel located onsite, but outside the Protected Area, is accomplished through PA system announcements, administrative controls, and by Security personnel.

NextEra sites use an automated ERO notification system to notify ERO members of a declared emergency. Multiple redundancies are incorporated such that activation of the system can be performed by computer or from any phone system, and operation can take place from more than one location.

F.2	Systems for coordinated communication methods for applicable fixed and mobile medical support facilities are described.

Communications methods have been coordinated with medical facilities (ambulance and hospital). Site specific communications systems used for hospital and ambulance coordination are described in the site annexes.

F.3	The testing method and periodicity for each communication system used for the functions identified in evaluation criteria E.2, F.1, and F.2 are described.

Communication systems testing is accomplished in accordance with Table F-1.

Table F-1: Communication System Testing Requirements

Communication System	Testing Requirement
ORO Notification System	Monthly [a]
NRC FTS (ENS) Network	Monthly [b]
ERDS	Verify Transmission Quarterly
ERO Notification System	Per Elements N.4.h and N.4.i
Field Monitoring Teams Communication	Annually [a]
Telephone System	Frequent Use [c]
Station Radio System	Frequent Use [c]
Station PA System	Frequent Use [c]
ANS	per site specific ANS Design Report

(a) Test credit may be given by successful use in a drill.

(b) NRC ENS in the Control Room is Frequent Use. TSC and EOF require monthly testing.

(c) Communication systems that are listed with a testing frequency of “Frequent Use” indicate that the associated equipment is normally used at a sufficient high regularity, such that separate additional testing is not needed.

G: Public Education and Information

Emergency planning information is made available to the public on a periodic basis and includes information on how they will be notified and what actions they may be asked to take (e.g., listening to a local broadcast station, remaining indoors, etc.). Information will also be provided to the news media to include principal points of contact to receive information (including the physical location(s)) and information about the coordinated dissemination of information from all agencies engaged in the response.

Regulatory References: 10 CFR 50.47(b)(7); 44 CFR 350.5(a)(7);
10 CFR Part 50, Appendix E.IV.D and F

G.1	Provisions are made for a coordinated annual dissemination of information to the public within the plume exposure pathway EPZ, including transient populations and those with access and functional needs, regarding how they will be notified and what actions should be taken. The information is disseminated using multiple methods, to include non-English translations per current Federal guidance.

NextEra, in coordination with OROs, updates and distributes site related emergency planning information annually to residents living within the plume-exposure pathway emergency planning zone (EPZ). Information disseminated to the public is in the form of printed or electronic materials. Public information for the transient population is also provided.

Annual distribution of safety information which contains educational information on emergency preparedness, sheltering, ANS, radiation, and telephone numbers of agencies to contact for more information.

Information for residents with special needs and non-English translations is incorporated per current federal guidance.

G.2	Methods, consistent with JIS concepts, are established for coordinating and disseminating information to the public and media. Plans include the physical location(s) for interacting with the media.

NextEra Corporate Communications and business unit personnel maintain programs and processes for the coordination and dissemination of information to the public and media using JIS concepts. Specifically, the process provides a structure and system for developing and delivering coordinated interagency messages; developing, recommending, and executing public information plans and strategies; advising decision makers concerning public affairs issues that could affect a response effort; and controlling rumors and inaccurate information that could undermine public confidence in the emergency response effort.

Physical locations for interacting with the media are maintained at the corporate headquarters and locally near each site. Specific site locations are described in the site annexes Element H.5.

G.3	Organizations designate news media points of contact and a spokesperson(s) with access to necessary information.

A spokesperson is designated as the primary point of contact for NextEra and is responsible for the consistency of the information released by the utility. The spokesperson may select individuals to address the public on behalf of NextEra as their respective expertise is needed. This position is not designated as an ERO position.

G.3.a	Arrangements are made for the timely exchange of information among the designated spokespersons representing the entities involved in incident response.

Arrangements are made for the exchange of information among the designated spokespersons that use various means and technologies as agreed upon by the particular agencies. NextEra will provide information and updates to the ORO and federal public information officers (PIOs) to address the emergency, including plant conditions and associated response actions.

OROs address public response and actions in accordance with their respective plans.

G.4	Organizations establish coordinated arrangements for identifying and addressing public inquiries and inaccurate information.

NextEra personnel coordinate with ORO and federal PIOs via the JIS, or in a JIC when activated, to identify and address public inquiries and inaccurate information.

Public information personnel monitor media and public sources for misleading or erroneous information and to address inquiries. Rumors and misinformation are collected and provided to the appropriate individual or agency PIO. The PIOs assess and discuss the rumors and misinformation to coordinate responses.

ORO and federal PIOs address misinformation relating to offsite conditions, including protective action directives. NextEra spokespersons address misinformation regarding station/utility rumors. Rumors and incorrect information are addressed in media statements and at news conferences as appropriate.

G.5	Organizations conduct programs to acquaint news media with the emergency plans at least annually.

The news media will be provided materials to acquaint them with emergency planning effort at the NextEra specific site(s) annually.

Typical content includes site information, information concerning radiation, emergency planning, and points of contact for release of information to the media during an emergency.

H: Emergency Facilities and Equipment

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Regulatory References: 10 CFR 50.47(b)(8); 44 CFR 350.5(a)(8);
10 CFR Part 50, Appendix E.IV.E

H.1	A TSC is established, using current Federal guidance, from which NPP conditions are evaluated and mitigative actions are developed.

The Technical Support Center (TSC) provides a dedicated location for management and technical support to operations personnel and to relieve the operations staff of emergency response actions and communications not related to plant system manipulations. The TSC is sized to accommodate ERO responders and NRC representatives.

The TSC is activated when minimum staffing requirements are met, key systems and equipment are verified operational, and the ERO personnel are prepared to perform their functions. When activated, the TSC's primary functions include:

- Provide ERO command & control
- Continued evaluation of event conditions
- Develop and issue offsite protective actions recommendations
- Develop ORO event notifications
- Provide ENS communications with the NRC
- Display and trend plant data
- Develop response priorities and mitigative actions
- Coordination of site emergency response actions
- Provide engineering support

Personnel in the TSCs are protected from radiological hazards, including direct radiation and airborne contaminants under accident conditions, with radiological habitability standards similar to the Control Room. To ensure adequate radiological protection, radiation monitoring equipment is located in the TSCs, or periodic radiation surveys are conducted. These systems indicate radiation dose rates while in use. In addition, potassium iodide (KI) is available to TSC personnel for use.

Each TSC provides communications to the Control Room, OSC, EOF, Corporate Headquarters, NRC, and OROs.

The TSCs have access to drawings and other records, including general arrangement diagrams, piping and instrumentation diagrams (P&IDs), electrical schematics and plant procedures as either electronic or paper documents.

TSC has the capability to support the remote response of the ERO engineering positions.

Site specific details of the primary and backup TSC are described in the site annexes.

H.2	An OSC is established, using current Federal guidance, from which repair team activities are planned and teams are dispatched to implement actions.

The Operations Support Center (OSC) provides a dedicated location for coordinating and planning event response activities and for staging personnel and equipment. The OSC is sized to accommodate ERO responders.

The OSC is activated when minimum staffing requirements are met, key systems and equipment are verified operational, and the ERO personnel are prepared to perform their functions. When activated, the OSC's primary functions include:

- Provide staging area for maintenance, operations, RP, and other support personnel
- Provide for briefing, dispatch, and coordination of emergency response teams

Dosimetry (dose of legal record and self-reading capable of monitoring emergency radiation exposure), respiratory protection, radiation survey equipment, and RWPs are available to OSC personnel. In the event of a personnel contamination, decontamination will be performed in the area normally designated for this purpose.

Radiation and contamination levels in and around the OSC are assessed during emergencies.

Each OSC provides communications to the Control Room, TSC, and emergency response teams.

The OSCs have access to drawings and other records, including general arrangement diagrams, piping and instrumentation diagrams (P&IDs), electrical schematics and plant procedures as either electronic or paper documents.

Site specific details of the primary and backup OSC are described in the site annexes.

H.3	An EOF is established, using current Federal guidance, as the primary base of emergency operations for the licensee during a radiological incident. The EOF facilitates the management and coordination of the overall emergency response, including the sharing of information with Federal, state, local, and tribal government authorities.

The Emergency Operations Facility (EOF) provides a dedicated location for support of the site event response activities. The EOF is sized to accommodate ERO responders and NRC, FEMA, and state representatives.

The EOF is activated when minimum staffing requirements are met, key systems and equipment are verified operational, and the ERO personnel are prepared to perform their functions. When activated, the EOF's primary functions include:

- Coordinate emergency response activities with federal, state, and local authorities
- Coordinate support activities performed by personnel brought in to assist NextEra personnel
- Perform offsite dose assessment and field monitoring activities.
- Development of dose based offsite protective actions recommendations.

- Coordination of emergency response activities with federal, state, and local authorities.
- Coordination of radiological and environmental assessment activities with offsite agencies.
- Communicate with the NRC HPN line.
- Coordinate corporate support.
- Support site acquisition of external assistance (technical, craft, admin, etc.).
- Support site acquisition of equipment, supply, and logistic resources.

Because the EOF is located outside the plume exposure EPZ for all NextEra sites, specialized ventilation systems and radiological monitoring are not required. The EOF ventilation system is consistent in design with standard building codes.

Each EOF provides communications to the Control Room, TSC, field monitoring teams, NRC, and OROs.

The EOF has the capability for the acquisition, display, and evaluation of unit, radiological and meteorological conditions necessary to perform accident assessment and determine protective measures. The EOFs have access to drawings and other records, including general arrangement diagrams, piping and instrumentation diagrams (P&IDs), electrical schematics and plant procedures as either electronic or paper documents.

The EOF has the capability to support the remote response of ERO positions.

Site specific details of the EOF are described in the site annexes.

H.3.a	For an EOF that is located more than 25 miles away from the NPP site, provisions are made for locating NRC and offsite responders closer to the NPP site.

This element does not apply as the NextEra EOFs are not located more than 25 miles from the sites.

H.4	An alternative facility (or facilities) is established, using currently provided and/or endorsed guidance, which would be accessible even if the NPP site is under threat of or experiencing hostile action.

An alternative facility provides a location for the staging of ERO personnel in the event of a Security or Hostile Action threat for each NextEra site. The alternative facility may also serve as an evacuation location for TSC and OSC personnel should those facilities become uninhabitable.

The alternative facility can communicate with the Control Room, site security, and EOF. The functions of offsite notification and PARs can be performed from the Alternative Facility. Emergency response team planning and preparation can be performed from the Alternative Facility.

Site specific details of the alternative facilities are described in the site annexes.

H.5	A JIC is established, and its location is identified, to coordinate communication from Federal, state, local, and tribal government authorities and licensee personnel with the public and media.

A near-site JIC (outside the 10 mile EPZ) is established for each site. ERO staffing of the JIC is concurrent with other ERFs, although facility activation is coordinated with the joint offsite agencies and has no time requirement.

When activated the JIC functions as a physical location for interacting with the media and for coordination between NextEra, federal and ORO PIOs regarding communications information to the public and the media.

NextEra provides space and equipment at their corporate facility to provide coordination of public information response activities with site and corporate JIS/JIC personnel.

Site specific details of the JICs are described in the site annexes.

H.6	Each organization establishes an emergency operations center (EOC) for use in directing and controlling response functions. For an EOC located within the plume exposure pathway EPZ, an alternate EOC or location outside the plume exposure pathway EPZ is identified to continue response functions in the event of an evacuation.

This element is not applicable to the licensee emergency plan.

H.7	Onsite monitoring systems used to initiate emergency response measures in accordance with the emergency classification scheme, as well as those to be used for conducting assessment, are identified. Monitoring systems consist of geophysical phenomena monitors, including meteorological, hydrologic, and seismic instrumentation; radiation monitors and sampling equipment; plant process monitors; and fire, toxic gas, and combustion products detectors.

NextEra sites have installed instrumentation for seismic monitoring, radiation monitoring, hydrologic monitoring, meteorological monitoring, and fire/ toxic gas/combustion products detectors in accordance with site Current Licensing Basis (CLB) documents.

1. Meteorological Monitoring

   Each NextEra site has a permanent on site meteorological monitoring station for the acquisition and recording of wind speed, wind direction, and stability class for use in offsite dose projection. Meteorological information is displayed in the Control Room, TSC, and EOF. Refer to Chapter 2 of the UFSARs for descriptions of the meteorological monitoring systems.

2. Hydrologic Monitoring

   Each NextEra site has hydrological monitors that support the acquisition of data used for event recognition and declaration. Refer to Chapter 2 of the UFSARs for descriptions of the hydrologic monitoring systems.

3. Seismic Monitoring

   Each NextEra site has a seismic monitoring system that supports the acquisition of data used for event recognition and declaration. Refer to Chapter 3 of the UFSARs for descriptions of the seismic monitoring system.

4. Process and Area Radiation Monitors

   Process Radiation Monitors (PRMs) measure radioactive noble gas, iodine, and particulate concentrations in gaseous effluent pathways and gross radioactivity in other gaseous and fluid streams, and are used for event recognition and declaration.

   Area Radiation Monitors (ARMs) measure in-plant dose rates and allow in-plant dose rate determinations to be made remotely. This information may be used to aid in the determination of plant area accessibility for the protective action function.

   Refer to Chapters 11 and 12 of the UFSARs for descriptions of the PRM and ARM systems.

5. Portable Radiation Monitors

   Portable radiation monitoring equipment is available for uses such as area monitoring, sampling, personnel surveys, and continued accident assessment.

6. Sampling Systems

   Liquid and gaseous sampling systems, consisting of normal sampling systems and panels located throughout the unit(s) at each site, are used for event recognition and declaration. Refer to Chapter 9 of the UFSARs for descriptions the sites sampling systems.

7. Fire Detection Systems

   The fire detection system, consisting primarily of fire/smoke detectors, control panel units, and annunciator panels, are used for event recognition and declaration. The fire detection equipment, alarms, and suppression equipment are described in detail in UFSAR Section 9.5 and in the sites' Fire Hazard Analysis Report.

H.8	Provisions are made to acquire data from offsite monitoring and analysis equipment, including data on geophysical phenomena (e.g., meteorological, hydrologic, and seismic monitors) and radiological data (e.g., from FMTs, environmental dosimeters, and laboratory analyses).

1. Meteorological Monitoring

   Weather forecasts and certain meteorological data is available from the National Weather Service.

2. Seismic Monitoring

   Seismic information from offsite sources can be obtained from the National Earthquake Information Center. The USGS is the contact agency to obtain information about a seismic event.

3. Hydrologic Monitoring

   Hydrologic information is available from the National Weather Service.

4. Radiological Environmental Monitoring

   Offsite programs and processes are developed within the Radiological Environmental Assessment Program (REMP) as described in the Offsite Dose Calculation Manual (ODCM) at each site. The Radiological Environmental Assessment Program includes:

   - Fixed continuous air samplers
   - Routine sampling of water, vegetation, consumable products
   - A dose monitoring network

   The locations of the normal onsite and offsite environmental monitoring stations are described in the ODCM. Additional predetermined emergency offsite monitoring locations are contained in procedures.

   Site specific details of the radiological environmental assessment program are provided in the site specific ODCMs.

5. Laboratory facilities, fixed or mobile

   Refer to Element C.4 for details on facilities for counting and analyzing samples.

H.9	Organizations directly responsible for offsite radiological monitoring provide for radiological monitoring equipment. This includes equipment that is located or stored near the NPP site, as well as additional equipment that may be brought to the site.

Each NextEra site maintains a supply of equipment, either at the site or the near-site EOF, for two Field Monitoring Teams assigned to perform onsite and offsite radiological monitoring and sampling functions.

Federal, industry and private entities can be contacted to coordinate additional materiel and personnel resources for offsite radiological monitoring.

H.10	Instrumentation is provided to obtain current meteorological information. Additional provisions are made to obtain representative meteorological information from other sources as needed by the NPP's radiological assessment models for site-specific characterization of plume dispersion and transport. Meteorological information is provided to the control room, TSC, EOF (or backup EOF), and NRC (via ERDS).

Refer to Element H.7.1 for a description of the onsite meteorological monitoring capabilities.

Refer to Element H.8.1 for a description of the offsite meteorological monitoring capabilities.

Site meteorological information is available on workstations in the Control Room(s), TSC, EOF, and to remote dose assessors.

ERDS provides the NRC with selected meteorological data points on a near real-time basis.

Meteorological inputs for the sites' dose assessment model are provided by ERF plant parameter display systems that obtain data from the site meteorological towers. Input parameters include wind speed, wind direction and stability class.

H.11	Provisions are made to ensure that emergency equipment and supplies are tested, maintained, and available in sufficient quantities, to include reserves and replacements, when needed. This includes:

NextEra emergency equipment and kits are inventoried to verify adequate supplies and materials, and to inspect condition semi-annually and following each use.

Emergency use equipment and instruments are operationally checked semi-annually during the inventory, and prior to use if needed as specified in procedures.

Sufficient reserves of instruments and equipment are maintained to replace those removed from service for calibration or repair.

H.11.a	Identification of the organization(s) responsible for the testing and maintenance of emergency equipment.

NextEra personnel are responsible for oversight of maintenance and testing of emergency equipment.

H.11.b	Calibration and operational checks of emergency equipment per national standards or the manufacturer's instructions, whichever is more frequent.

Requirements to calibrate emergency equipment and instruments are specified in site procedures.

H.12	Emergency kits are identified by general category. Contents and quantity of each emergency kit are specified in the emergency plan or other document(s) referenced in the emergency plan.

Emergency kits are assembled for radiation protection, field monitoring, first aid or other emergency use needs based on location and availability at each site.

Details of emergency kit contents and locations are contained in site procedures used to maintain facilities and equipment.

H.13	Each organization identifies the location(s) for the receipt and analysis of field monitoring data and coordination of sample media, and identifies the organization(s) responsible for assessing radiological data.

The site radiological laboratory is the primary location for receipt of field monitoring team samples. The EOF RP Coordinator is responsible for direction and coordination of field monitoring sample analyses, and for assessing the radiological data obtained from the Field Monitoring Teams.

Sampling and analysis equipment are available (see Element C.4) for quantitative activity determination of liquid and air samples, and qualitative activity determination of terrestrial samples.

I: Accident Assessment

Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

Regulatory References: 10 CFR 50.47(b)(9); 44 CFR 350.5(a)(9);
10 CFR Part 50, Appendix E.IV.A, B and E

I.1	Capabilities for performing radiological assessment for all reactor core and spent fuel pool sources, individually and collectively, including response to events occurring simultaneously at all units on the NPP site, are described. These capabilities include:

I.1.a	Methods for determining the magnitude and isotopic composition of an ongoing release of radioactive material through waterborne or airborne release pathways, or estimating these parameters for a potential release.

The magnitude of a release of radioactive material to the environment is primarily identified directly by effluent monitors. Survey and sample analysis may also be used to determine the magnitude of a release. Indirect means such as core damage estimates and release pathway assumptions may be used to estimate the magnitude of a release of radioactive material.

The isotopic composition of a release of radioactive material to the environment may be determined by; (1) effluent gaseous monitors, (2) survey and sample analysis, or (3) source term estimates based on core damage and release pathway assumptions.

Dose assessment model methods are capable of estimating source term and magnitude of gaseous releases from effluent monitors or plant parameter data and release rate projections.

I.1.b	A radiological assessment model for airborne releases that provides estimates of offsite radiation exposures and contamination levels using a dispersion model that is representative of the plant release points, topographical features, and meteorological regimes at the NPP site.

NextEra uses site specific versions of the Unified RASCAL Interface (URI) off-site dose projection computer model. The underlying dose assessment model in URI is the NRC RASCAL 4 model, based on the methods and equations documented in NUREG-1940.

The URI model provides off-site radiological dose and dose rate estimates based on near real time or hypothetical inputs. Projected dose is based on EPA-400-R92-001 dose conversion factors and provided as; (1) the total effective dose equivalent, or TEDE (the sum of the effective dose equivalent from immersion, 4 days of ground deposition, and the committed effective dose equivalent from inhalation), and (2) the committed dose equivalent to the thyroid (CDE thyroid).

URI dose projection results are given for various locations from the site boundary to 10 miles. URI is capable of providing dose assessment results for multiple release points from the site.

URI dose projection results and field monitoring readings are used in assessing radiological EALs and PARs.

I.1.c	A capability to coordinate and implement in-field radiological assessments by FMTs and/or sampling teams and to assess the data obtained.

Environmental surveys inside and outside the protected area are performed by Field Monitoring Team members under the direction of the EOF RP Coordinator.

Field monitoring teams are directed to track and evaluate a radioactive plume by monitoring radiation levels and by obtaining and analyzing air samples. Field monitoring surveys and sampling may be performed at pre-identified locations or other geographic locations within the EPZ determined during the event. Samples taken by the offsite monitoring teams will be evaluated further by one of the available laboratory facilities described in Element C.4.

I.2	Methods for assessing contamination of drinking water through liquid release pathways or deposition of airborne materials for NPP sites located on or near bodies of water from which public drinking water is drawn.

This element is not applicable to the licensee emergency plan.

I.3	The capability and responsibility for monitoring the following parameters, which provide input to radiological assessments during an emergency, are described: 1. Status of reactor fuel (e.g., no fuel damage, technical specification activity, clad failure, core melt.). 2. Status of containment integrity. 3. Leakage of radioactive material from plant systems, structures and components. 4. Status of engineered safety features used to mitigate the release of radioactive material to the environment (e.g., filters, containment spray, etc.). 5. Onset and duration of an actual release of radioactive material to the environment, or estimating these parameter for a potential release.

The ERO monitors plant parameters using information provided by plant data transmittal systems to assess the status of reactor fuel using core damage assessment procedures.

The ERO monitors plant data systems to evaluate the status of containment integrity, systems used to mitigate the release of radioactive material to the environment and to identify leakage of radioactive material from plant systems, structures, and components.

Effluent and process monitors are used to determine the onset and duration of an actual or potential release of radioactive material to the environment.

I.4	The methods and responsibility for determining the source term present in reactor coolant, containment atmosphere, and spent fuel pool area atmosphere are described.

Source term present in reactor coolant, containment atmosphere, and spent fuel pool area atmosphere are estimated using effluent, process and area radiation monitor readings, comparison of plant conditions against design basis event scenarios, sample analysis and environmental survey results, and plant parameter indications as inputs into the dose assessment and core damage assessment processes.

I.4.a	The contingency arrangements to obtain and analyze highly radioactive samples from the reactor coolant system, containment atmosphere and sump, and spent fuel pool storage area are described.

Each NextEra site has arrangements to obtain and analyze highly radioactive samples from the reactor coolant system, containment atmosphere and sump, and spent fuel pool.

Site specific arrangements to obtain and analyze highly radioactive samples are described in the site annexes.

I.5	The organizations responsible for FMT activities, and necessary resources, are identified.

NextEra is responsible for NextEra field monitoring team activities.

NextEra field monitoring team activities are coordinated with environmental monitoring efforts performed by ORO field monitoring teams.

I.6	Each organization, where appropriate, provides methods, equipment, and expertise to make timely assessments of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways, including development of post-plume PARs for comparison to current Federal guidance.

NextEra sites use an industry recognized dose assessment model to make timely assessments of the actual or potential magnitude and locations of any radiological hazards through gaseous release pathways. Personnel qualified in dose assessment are available on shift, remotely, and in the EOF. Dose assessment results and field monitoring readings assist in evaluating appropriate ECLs based on radiological EALs, and for developing any related PARs.

The actual or potential magnitude of liquid radiological releases with regard to the ECLs are determined by liquid effluent monitors, direct area surveys, or sample analyses.

With regard to the ingestion pathway, field monitoring teams are used to obtain liquid effluent samples from radioactive liquid releases. Sample results are used in conjunction with Offsite Dose Calculation Manual (ODCM) methods to estimate potential ingestion exposure in support of EAL determination. Also, liquid release monitoring activities are coordinated and sample results shared with ORO agency personnel to assist their determination in intermediate phase protective actions.

I.7	The capability to detect and measure radioiodine concentrations in air in the plume exposure pathway EPZ as low as 1E-7 *μ*Ci/cc (microcuries per cubic centimeter) under field conditions is described. The sample collection process takes into account the sample flow rate, collection efficiency of the sample media used to collect the sample, duration of the sample, counter efficiency, and background radiation, including interference from the presence of noble gases.

NextEra field monitoring equipment has the capability to detect and measure airborne radioiodine concentrations as low as 1E-7 μCi/cc in the presence of noble gases. Air samples will be taken with portable air sampling equipped with a Silver Zeolite or equivalent cartridge and particulate filter. Interference from the presence of noble gas and background radiation is minimized by ensuring that monitoring teams move to areas of low background prior to analyzing the sample cartridge.

Air sample results can be estimated in the field through the use of portable monitors. The samples can be subsequently analyzed for greater precision by the laboratory facilities described in Element C.4.

I.8	A means is established for relating the various measured parameters (e.g., exposure rates, contamination levels, and air activity levels) to dose or dose rates. Provisions are made for estimating integrated dose from the projected and actual dose rates and for comparing these estimates with current federal guidance. In addition, provisions are established to validate dose projections with field data and compare projections with other organizations also calculating dose projections. The detailed provisions are described in implementing procedures.

NextEra field monitoring teams will track the plume from any radiological release by monitoring radiation levels and by obtaining and analyzing air samples. Field monitoring team environmental survey and air sample results are compared with dose assessment results to validate or adjust projections. Additionally, field monitoring results can be input into the dose assessment model to develop projections at different locations.

I.9	Arrangements to locate and track the airborne radioactive plume are made using available resources, which includes federal, state, and tribal governments, and/or licensee resources. Provisions are made to characterize the plume including taking peak plume measurements. Identification of the plume, includes determining a measurement that is high enough to be reasonably above background radiation readings and sufficient enough to indicate submersion within the plume.

NextEra maintains equipment for the utility field monitoring teams. Methods to monitor a radioactive plume include establishing peak centerline values and immersion areas. Monitoring strategies may include the traversing of plumes when road networks and exposure rate permit. Additionally, local field sampling and monitoring points are specified to support pre-positioning of teams or use in comparison with dose projection results.

Data from the NextEra field monitoring teams is compared to data provided by state field monitoring teams that may be dispatched into the area. Data collected before state field monitoring teams are in the field is made available to state dose assessment personnel.

I.10	Organizations directly responsible for radiological monitoring, analysis, and dose projections describe the capability for coordinating monitoring efforts, tracking and trending data, and sharing analytical results with other organizations performing radiological assessment functions.

NextEra EOF dose assessment personnel coordinate field monitoring team radiological monitoring activities and compare dose projection results with ORO and NRC representatives.

J: Protective Response

A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. ETEs have been developed by applicants and licensees. Licensees shall update the ETEs on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Regulatory References: 10 CFR 50.47(b)(10); 44 CFR 350.5(a)(10);
10 CFR Part 50, Appendix E.IV.2-6, E and I

J.1	The means and time required to alert, notify, and provide a range of protective actions for onsite individuals and individuals who may be in areas controlled by the licensee (including members of the public) during a radiological incident are described.

NextEra maintains procedures to provide for a range of protective actions for all areas controlled by the site. Protective actions have been developed for radiological incidents and to protect personnel during hostile actions directed at the site.

Sitewide notifications and announcements are routinely made using the Public Address (PA) system. Personnel on site are notified of a declared emergency through the PA system.

Visitors within the Protected Area are escorted by badged individuals. The escort is responsible for controlling and directing their assigned visitors regarding actions required by any announcements and alarms.

Security personnel are used, as available, to augment PA announcements and to check OCA areas for remaining individuals.

J.1.a	Provisions are made for evacuation of onsite non-essential personnel at an SAE/General Emergency (GE).

Site evacuation is required following a Site Area Emergency or General Emergency unless delayed due to safety issues. The sounding of an alarm over the public address system occurs for the initiation of site evacuation.

When a site evacuation occurs, ERO and other essential personnel respond to their designated response facilities/areas. Non-essential personnel inside the Protected Area typically exit to the OCA by following normal RP and Security processes and proceed to a designated assembly area. Further evacuation of non-essential personnel inside the OCA occurs as warranted for the particular site.

A process is in place to perform a rapid evacuation of the Protected Area without onsite monitoring and OCA assembly if conditions warrant. Monitoring in this instance is performed at an offsite location.

J.2	Provisions are made and coordinated with appropriate offsite entities for evacuation routes and transportation for onsite individuals to a suitable offsite location. Selection of location considers the potential for inclement weather, high traffic density, and potential radiological conditions. Alternate location(s) and route(s) are identified.

Designated offsite locations for site evacuees, and the process to use them, have been identified through coordination with local emergency management personnel.

The site evacuation process takes into consideration meteorological and radiological data, weather and other travel hazards.

On-site personnel will evacuate the site when directed. Site evacuation routes and evacuation locations are contained in the site annexes.

J.3	Provisions for radiological monitoring and decontamination, if necessary, of personnel evacuated from the NPP site are described.

Personnel evacuating are monitored for contamination, and, if possible and necessary, decontaminated before leaving the site. If conditions do not allow for decontamination of personnel on-site, they will be directed to designated offsite reception center(s) for radiological monitoring and decontamination, if required.

J.4	The capability to account for all individuals inside the NPP Protected Area following declaration of an SAE or GE is described. The names of missing individuals are ascertained within 30 minutes following the emergency declaration and accountability is maintained for the duration of the incident. This capability includes provisions for prompt accountability following events that may preclude completion within 30 minutes (e.g., hostile action).

The emergency alarm, together with the public address system, is used to alert and notify on-site personnel of the need for assembly at a Site Area or General Emergency classification level (or earlier at the discretion of the Emergency Director).

ERO personnel report to their assigned emergency response facility.

Typically, accountability of personnel inside the Protected Area is completed within 30 minutes of event declaration. Following a hostile action event, the personnel accountability process is initiated following containment or cessation of the threat. Missing individual(s) will be identified by Security. Appropriate actions will be taken to locate missing individual(s). When necessary, search and rescue team(s) will be dispatched to locate and, if necessary, rescue missing individual(s).

After initially completed, accountability will be maintained continuously throughout the emergency for personnel inside the Protected Area.

J.5	Provisions are made for personal radiological protection for individuals arriving or remaining onsite during the incident.

Protective equipment and supplies are available to personnel remaining on site or arriving on site during the emergency to minimize the effects of radiological exposures or contamination in accordance with radiation protection procedures. Protective measures include the following:

1. Individual Respiratory Protection

   Respiratory protection equipment is used by qualified personnel when called for by exposure control procedures. The radiological use respiratory protection program is maintained by RP.

   Self-contained breathing apparatus is used in areas that are deficient in oxygen or when fighting fires. Self-contained breathing apparatus are available with other firefighting equipment for use by the site fire brigade.

2. Individual Thyroid Protection

   Efforts are made to utilize respiratory protective equipment to minimize ingestion and/or inhalation of radionuclides and to maintain internal exposure below the limits specified in 10 CFR 20, Appendix B. However, if an emergency involves the accidental or potential ingestion or inhalation of radioactive iodine, Potassium Iodide tablets (KI) are maintained and available for distribution.

   The administration of potassium iodide (KI) to NextEra and vendor personnel may be used to mitigate the consequences of inhalation of radioiodine during an emergency. The process for administration of radioprotective drugs is described in implementing procedures.

3. Protective Clothing

   Protective clothing will be issued when needed to limit personal contamination and minimize the spread of contamination.

J.6	The basis and methodology are established for the development of PARs for the responsible OROs, including evacuation, sheltering, and, if appropriate, radioprotective drug use, for the plume exposure pathway EPZ. Current Federal guidance is used.

NextEra sites have developed PARs, in accordance with agreements made with the state agencies, for the plume exposure pathway EPZ that include evacuation, sheltering, and recommendations for radioprotective Potassium Iodide use based on the following:

- NUREG-0654/FEMA-REP-1, Supplement 3, Guidance for Protective Action Strategies, November 2011
- EPA-400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, May 1992
- Guidance for Industry, KI in Radiation Emergencies, Questions and Answers, FDA, December 2002

- Potassium Iodide as a Thyroidal Blocking Agent in Radiation Emergencies, FDA Guidance, November 2011

PARs for the general public will be based on plant conditions and/or offsite dose assessment results.

PARs beyond the 10-mile EPZ will be developed on an "ad hoc basis" from projected or measured dose in excess of EPA PAGs. Because dose projection accuracy is limited by distance, actual field measurements are used to corroborate projections before issuing PARs in areas outside the 10-mile EPZ.

The PAR strategy basis document is referenced in the site annexes.

J.7	A site-specific protective action strategy or decision-making process, informed by the ETE study, is coordinated between the licensee and OROs. Current Federal guidance is used.

NextEra offsite protective action recommendation strategies, informed by the ETE report, have been developed using guidance provided in NUREG-0654/FEMA-REP-1, Supplement 3, Guidance for Protective Action Strategies, in coordination with the state and local agencies.

J.8	The latest ETEs are:

J.8.a	Incorporated either by reference or in their entirety into the emergency plan.

The most recent ETEs are incorporated by reference into this emergency plan. Refer to the site annexes for specific reference to the ETE study.

Updated ETE studies will be submitted to the NRC under 10 CFR 50.4 no later than 365 days after NextEra determines that the criteria for updating the ETE have been met and at least 180 days before using it to form protective action recommendations and providing it to state and county governmental authorities for use in developing offsite protective action strategies.

During the years between decennial censuses NextEra will estimate EPZ permanent resident population changes once a year, but no later than 365 days from the date of the previous estimate, using the most recent U.S. Census Bureau annual resident population estimate and state/county government population data, if available. NextEra will maintain these estimates so that they are available for NRC inspection during the period between decennial censuses and will submit these estimates to the NRC with any updated ETE report.

The criteria that require a full update to the site ETE study is as follows:

1. The availability of the most recent decennial census data from the U.S. Census Bureau;

   OR

2. If at any time during the decennial period, the EPZ permanent resident population increases such that it causes the longest ETE value for the 2-mile zone or 5-mile zone, including all affected emergency response planning areas, or for the entire 10-mile EPZ to increase by 25 percent or 30 minutes, whichever is less, from the currently NRC approved or updated ETE.

J.8.b	Incorporated either by reference or as a summary of the latest ETE analysis into the emergency plan.

This element is not applicable to the licensee emergency plan.

J.9	PARs are provided, in a timely manner, directly to the designated ORO(s) responsible for making protective action decisions (PADs) within the plume exposure pathway EPZ.

Applicable plume exposure pathway EPZ PARs of evacuate and shelter are developed at the General Emergency classification level and provided to the ORO personnel responsible for making protective action decisions.

PARs are communicated using the initial notification form and process. See Section E for a discussion of emergency notification.

J.10	Plans include maps, charts, or other information that demonstrate the following for the plume exposure pathway EPZ:

J.10.a	Evacuation routes, evacuation areas, reception centers in host areas, and shelter areas.

Details on evacuation routes, evacuation areas, reception centers in host areas, and shelter areas are provided in the site ETE report.

J.10.b	Population distribution around the NPP site by evacuation areas.

Details on population distribution around the NextEra sites, by evacuation areas, are provided in the site ETE report.

J.11	A capability for implementing protective actions based on current Federal guidance is established. The process ensures coordinated implementation of PADs with all appropriate jurisdictions. The process for implementing protective actions for the plume exposure pathway EPZ is described and includes the following:

J.11.a	Means for identifying and protecting residents who would have difficulty in implementing protective actions without assistance. This includes those with access and functional needs, transportation-dependent residents, those in special facilities, and those in correctional facilities. These means include notification, support, and assistance in implementing protective actions where appropriate.

This element is not applicable to the licensee emergency plan.

J.11.b	The decision-making methodologies for use of radioprotective drugs and the provisions for administration to the general public, emergency workers, and institutionalized persons within the plume exposure pathway EPZ. This includes the means of determining quantities, maintaining and managing supplies, communicating recommendations, and distributing.

This element is not applicable to the licensee emergency plan.

J.11.c	Means of evacuation informed by the updated ETEs. The evacuation routes and transportation resources to be utilized are described and include projected traffic capacities of evacuation routes and implementation of traffic control schemes during evacuation.

This element is not applicable to the licensee emergency plan.

J.11.d	The locations of pre-identified reception centers beyond the boundaries of the plume exposure pathway EPZ, organizations responsible for managing reception centers, arrangements for handling service animals and pets, and provisions for radiological monitoring/decontamination.

This element is not applicable to the licensee emergency plan.

J.11.e	Means for the initial and ongoing control of access to evacuated areas and organizational responsibilities for such control, including identifying pre-selected control points.

This element is not applicable to the licensee emergency plan.

J.11.f	Identification of and means for dealing with potential impediments to the use of evacuation routes (e.g., seasonal impassability of roads) and contingency measures. The resources available to clear impediments and responsibility for re-routing traffic, as necessary, are described.

This element is not applicable to the licensee emergency plan.

J.11.g	Identification of and means to implement precautionary protective actions (e.g., actions taken at an SAE).

This element is not applicable to the licensee emergency plan.

J.12	Protective actions to be used for the ingestion exposure pathway EPZ are specified, including the methods for protecting the public from consumption of contaminated foodstuffs, and are based on current Federal guidance.

This element is not applicable to the licensee emergency plan.

J.13	The means for registering, monitoring, and decontaminating evacuees, service animals, pets, vehicles, and possessions at reception centers in host areas are described. The personnel and equipment available are capable of monitoring 20 percent of the plume exposure pathway EPZ population, including transients, assigned to each facility within a 12-hour period.

This element is not applicable to the licensee emergency plan.

J.14	General plans for the removal or continued exclusion of individuals from restricted areas are developed. Relocation plans include:

J.14.a	Process for implementing current federal guidance for relocation.

This element is not applicable to the licensee emergency plan.

J.14.b	Means to identify and determine the boundaries of relocation areas, including a buffer zone.

This element is not applicable to the licensee emergency plan.

J.14.c	Prioritization of relocation based on projected dose to an individual and the timeframe for relocation.

This element is not applicable to the licensee emergency plan.

J.14.d	Control of access to and egress from relocation areas and security provisions for evacuated areas.

This element is not applicable to the licensee emergency plan.

J.14.e	Contamination control during relocation.

This element is not applicable to the licensee emergency plan.

J.14.f	Means for coordinating and providing assistance during relocation.

This element is not applicable to the licensee emergency plan.

K: Radiological Exposure Control

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

Regulatory References: 10 CFR 50.47(b)(11); 44 CFR 350.5(a)(11);
10 CFR Part 50, Appendix E.IV.E

K.1	The radiation protection controls for emergency workers to be implemented during emergencies are described. These controls address the following aspects:

Approval is required if emergency workers are expected to receive dose in excess of 10 CFR 20 occupational dose limits. ALARA practices are utilized during emergencies as much as practical.

K.1.a	Onsite emergency exposure guidelines for emergency workers consistent with their assigned duties and current Federal guidance and the conditions under which the guidelines apply.

Onsite exposure guidelines for emergency workers, consistent with EPA 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, U.S. Environmental Protection Agency, May 1992, Table 2-2, "Guidance on Dose Limits for Workers Performing Emergency Services," have been established as follows:

TEDE Limit (Rem)	Activity
5	All activities during the emergency.
10	Protecting valuable property when lower dose is not practicable.
25	Lifesaving or protection of large populations when lower dose is not practical per EPA-400-R-92-001.
Greater Than 25	Lifesaving or protection of large populations, only if individuals receiving exposure is a volunteer, and fully aware of risks involved.

NOTES

- Emergency exposure limits are exclusive of current occupational exposure.
- Only one emergency exposure is allowed per lifetime.
- Dose to lens of the eye is limited to three times listed value.
- Dose to other organs, including skin and body extremities, is limited to ten times listed value.

K.1.b	The capability to evaluate emergency worker dose (i.e., the sum of the effective dose equivalent and the committed effective dose equivalent) at the time of exposure when direct measurement is not feasible.

Emergency worker exposure is monitored at the time of exposure by the use of electronic dosimeters. If direct measurement of airborne concentrations is not available at time of exposure, workers will be provided respiratory protection, when feasible, and total exposures will be calculated after the fact using follow up survey data and whole body counting equipment.

K.1.c	The capability to monitor and assess the radiation doses received by emergency workers for the duration of the incident.

Personnel dosimeters are issued to and worn by NextEra radiation worker qualified personnel who may be required to work in Radiological Controlled Areas in accordance with radiation protection procedures.

Radiation protection personnel in the OSC and TSC have the responsibility to monitor and assess the radiation doses received by ERO personnel on a 24-hour per day basis throughout a declared event.

Personnel dose records are documented and managed using a computerized system. Should this system not be readily accessible or available, personnel dose is manually recorded.

Dosimeters are available and will be provided to offsite agency responders if they are required to enter a Radiological Controlled Area or are expected to receive a dose in excess of 100 mRem for the event.

K.1.d	The capability to implement onsite contamination control measures.

Radiation safety controls are established 24 hours per day to contain the spread of loose surface radioactive contamination. Contamination control limits are defined in radiation protection procedures. Personnel leaving the contaminated areas are monitored to ensure that they are not radioactively contaminated.

K.1.e	The capability to decontaminate emergency workers, equipment, and vehicles.

Personnel decontamination is performed using normal radiation protection procedures in on-site facilities. Personnel decontamination facility locations are described in the site annexes.

Contamination on personnel will be removed in accordance with established radiation protection procedures.

Equipment will be released for use outside of the contaminated areas only when radioactive contamination is within acceptable limits. All equipment must be checked for contamination before being taken from a known contaminated area. Equipment and material decontamination is performed using normal radiation protection procedures.

K.1.f	Appropriate radiation protection briefings for repair teams that are being dispatched into the plant, and FMTs being sent onsite and offsite, the scope of which is consistent with the expected risk to the team.

Emergency teams, including Field Monitoring Teams, that must enter areas where they might be expected to receive higher than normal doses will be briefed on the task assigned and appropriate protective measures.

K.1.g	The process for NPP site access and dosimetry issuance to personnel from OROs arriving to assist with the onsite response.

The site access process into the protected area for local support organizations responding on site during an emergency is controlled by site security personnel. Non-NextEra emergency workers supporting on-site activities will be issued dosimetry and/or be monitored by radiation protection personnel when responding to areas where a radiation dose may be received.

K.2	Individual(s) who can authorize personnel to receive radiation doses in excess of the occupational dose limits in accordance with the minimum standards set forth in 10 CFR Part 20 or 29 CFR 1910.1096, as applicable to the organization, are identified by title/position. Such authorizations are documented.

Section B.2.a describes the responsibility for authorization of exposures to radiation in excess of 10 CFR 20 limits. Such authorizations are documented as part of the emergency exposure controls process provided in Element K.1.c.

K.2.a	The process for allowing onsite volunteers to receive radiation exposures in the course of carrying out lifesaving and other emergency activities is described.

All personnel dispatched into radiation areas or areas of unknown radiation levels are briefed on the task and environmental conditions and are provided appropriate monitoring and personnel protective equipment.

Refer to Element K.1.a for the description of activities and their exposure thresholds and considerations.

K.2.b	The process for authorizing emergency workers to incur exposures that may result in doses in excess of the current Federal guidance is described.

This element is not applicable to the licensee emergency plan.

K.3	The capability to determine the doses received by emergency workers involved in any commercial NPP radiological incident is described. Each organization makes provisions for distribution of direct-reading dosimeters (DRDs) and permanent record dosimeters (PRDs).

This element is not applicable to the licensee emergency plan.

K.3.a	Provisions to ensure that DRDs are read at designated intervals and dose records are maintained for emergency workers are described.

This element is not applicable to the licensee emergency plan.

K.4	Action levels for determining the need for decontamination are specified and the means for radiological decontamination are established for emergency workers and the general public, as well as equipment, vehicles, and personal possessions. The means for disposal of contaminated waste created by decontamination efforts are also established.

This element is not applicable to the licensee emergency plan.

L: Medical and Public Health Support

Arrangements are made for medical services for contaminated injured individuals.

Regulatory Reference: 10 CFR 50.47(b)(12); 44 CFR 350.5(a)(12); 10 CFR Part 50, Appendix E.IV.E

L.1	Arrangements are established with primary and backup hospitals (one hospital is located outside the plume exposure pathway EPZ) and medical services. These facilities have the capability for evaluation of radiation exposure and uptake. The persons providing these services are adequately trained and prepared to handle contaminated, injured emergency workers and members of the general public.

This element is not applicable to the licensee emergency plan.

L.2	Arrangements for the medical treatment of contaminated injured onsite personnel and those onsite personnel who have received significant radiation exposures and/or significant uptakes of radioactive material are described. These arrangements include the following components:

L.2.a	An onsite first aid capability with adequate medical equipment and supplies.

On-shift first aid personnel will provide first aid to individuals who are injured. Radiation protection personnel will provide contamination control support to potentially contaminated injured personnel.

NextEra maintains first aid supplies, and equipment for the treatment of injured or contaminated/injured persons. Descriptions of equipment and supplies, and radiological monitoring and decontamination equipment and supplies are in site procedures.

L.2.b	Primary and backup offsite medical facilities.

Arrangements have been made with local hospitals for the medical treatment of contaminated injured or over exposed personnel. These facilities and their services are available 24 hours per day.

Offsite medical facilities used to treat contaminated injured personnel are described in the site annexes.

L.2.c	Radiological controls capability, including the isolation of contamination, assessment of contamination levels, radiation exposure monitoring for medical facility staff, collection of contaminated waste, and decontamination of treatment areas.

NextEra personnel are available to assist medical personnel with decontamination, radiation exposure monitoring, and contamination control.

Radiological controls capability, including the isolation of contamination, assessment of contamination levels, radiation exposure monitoring for medical facility staff, collection of contaminated waste, and decontamination of treatment areas are described in hospital procedures.

L.2.d	Provisions to evaluate for radiological contamination either prior to transport to a medical facility or after arrival.

Injured personnel are evaluated for radiological contamination prior to transport to a medical facility per site procedures. If contamination monitoring is not possible due to the medical condition of the individual, contamination monitoring is performed as soon as possible following treatment at the medical facility.

L.2.e	Contact information for facilities capable of treating overexposure to radioactive material.

The Radiation Emergency Assistance Center Training Site (REAC/TS) located at Oak Ridge, Tennessee, will respond to and/or provide advice and assistance to offsite medical facilities in the event of a severe radiation accident.

L.3	Supplemental lists are developed that indicate the location of the closest public, private, and military hospitals and other emergency medical facilities within the state or contiguous states considered capable of providing medical support for any contaminated, injured individual.

This element is not applicable to the licensee emergency plan.

L.4	Each organization arranges for the transportation of contaminated, injured individuals and the means to control contamination while transporting victims of radiological incidents to medical support facilities and the decontamination of transport vehicle following use.

Injured personnel are evaluated for radiological contamination and packaged to control contamination prior to transport to a medical facility per radiation protection department procedures. NextEra personnel will assist with decontamination of transport vehicles if necessary.

Transportation agreements for contaminated injured personnel are described in site annexes.

M: Recovery, Reentry, and Post-Accident Operations

General plans for recovery and reentry are developed.

Regulatory Reference: 10 CFR 50.47(b)(13); 44 CFR 350.5(a)(13); 10 CFR Part 50, Appendix E.IV.H

M.1	General recovery, reentry, and return plans for radiological incidents are developed, as appropriate. These plans address reoccupancy, as appropriate. The plans should include:

M.1.a	Provisions for allowing reentry into areas controlled by the licensee. Reentry planning includes evaluation of the controls necessary for reentry under post-incident conditions.

Reentry can occur during the plume or post-plume phase and refers to the temporary movement of people into an area of actual or potential hazard. Personnel who have been evacuated or relocated from a restricted area may be allowed to reenter under controlled conditions to perform additional emergency response activities.

Reentry into the OCA will be based on site conditions. During or following a HAB incident, reentry criteria take into consideration site security and threat conditions.

M.1.b	Provisions for reentry into restricted areas, including exposure and contamination control, as appropriate. A method for coordinating and implementing decisions regarding temporary reentry into restricted areas is addressed.

This element is not applicable to the licensee emergency plan.

M.2	Individuals who will comprise the licensee's recovery organization are identified by title/ position. The recovery organization includes technical personnel with responsibilities to develop, evaluate, and direct recovery and reentry operations.

The recovery activities would be managed much like a normal outage, except that certain activities unique to the post-accident situation may be controlled by the recovery organization. The recovery organization would function as a matrix management organization to coordinate activities with the normal company organization. This organization may be located at the EOF or the site, as appropriate.

The primary positions in the recovery organization are described as follows:

- Recovery Manager – Overall management of recovery activities. High level coordination with offsite agencies.
- Onsite Recovery Coordinator – Directs the onsite recovery activities.
- Offsite Recovery Coordinator – Directs interface with offsite agencies during the recovery.
- Radiological Assessment Coordinator (if needed) – Coordinates radiological and environmental assessment with offsite agencies. Coordinates offsite radwaste management and decontamination activities.

- Spokesperson – Directs the public information program during the recovery phase.

M.3	The process for initiating recovery actions is described and includes the criteria for terminating the emergency.

Steps will be taken to terminate from the event, either directly or following a transition period (prior to entering a state of recovery operations). Usually, the Unusual Event and Alert classification levels will be directly terminated (no entry into recovery).

Items that must be considered before terminating the emergency condition to either a normal or a recovery organization are as follows:

- Emergency Action Level criteria
- Releases of radioactive materials to the environment
- In-plant radiation levels
- Plant stable and long term core cooling available
- Containment integrity
- Functionality and integrity of plant systems, facilities, power supplies, equipment, and instrumentation
- Fire, flood, earthquake or similar hazardous emergency conditions
- Security issues
- Site access not limited for personnel and support services

Decisions to relax protective actions for the public will be made by the appropriate state authorities.

When transition from an emergency to a recovery phase is necessary, the Emergency Director will designate a Recovery Manager and develop a recovery organization.

The Emergency Director will inform the ERO, OROs, and NRC upon exiting the state of emergency and either returning to normal organizational control or entering recovery.

M.4	The process for initiating recovery actions is described and includes provisions to ensure continuity during transfer of responsibility between phases. The chain of command is established.

This element is not applicable to the licensee emergency plan.

M.5	The framework for relaxing protective actions and allowing for return are described. Prioritization is given to restoring access to vital services and facilities.

This element is not applicable to the licensee emergency plan.

M.6	The organization(s) responsible for developing and implementing cleanup operations offsite is identified.

This element is not applicable to the licensee emergency plan.

M.7	Provisions for developing and modifying sampling plans are established. Provisions for laboratory analysis of samples are included in the plan.

The recovery organization will coordinate NextEra environmental sampling activities with the state agencies. Refer to Element C.4 for a description of laboratory capabilities.

M.8	A method for periodically conducting radiological assessments of public exposure is established.

This element is not applicable to the licensee emergency plan.

N: Exercises and Drills

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

Regulatory References: 10 CFR 50.47(b)(14); 44 CFR 350.5(a)(14);
10 CFR Part 50, Appendix E.IV.F

N.1	Exercises and drills are conducted, observed, and critiqued/evaluated as set forth in NRC and FEMA regulations and guidance.

1. Exercise: An exercise is an event that tests the integrated capability and a major portion of the elements of the emergency plans and organizations.
   - Over the period of the exercise cycle, exercises will test the adequacy of timing and content of implementing procedures and methods, test emergency equipment and communications networks, test the public alert and notification system, and ensure that emergency organization personnel are familiar with their duties.
   - Exercises must provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to implement the principal functional areas (see N.4) of emergency response.
   - State and local agencies within the plume exposure pathway EPZ are provided the opportunity to participate by invitation as described in Element N.2.a.
2. Drill: A drill is aimed at testing, developing and maintaining skills in one or more emergency plan functions.
   - Drill types may be operational or discussion-based events (e.g., single ERF or tabletop drills). Drills may be a component of an exercise.
   - During drills; activation of all of the ERFs is not required, supervised instruction is permitted, participants may be given the opportunity to resolve problems (success paths), and focus may be primarily on onsite training objectives. Drills may include evaluation of specific performance objectives or be conducted for non-evaluated training only.

The ERO (not necessarily each ERO member) shall be provided the opportunity to develop and maintain key emergency response skills within the scope of their duties in drills and exercises during each exercise cycle.

Over the course of an eight-year cycle all unique initiating conditions in the EAL scheme (with the exception of judgment ICs) are made available for the demonstration of event classification within drills or exercises.

N.1.a	The process to critique/evaluate exercises and drills is described.

Critiques of each drill and exercise will be held following each event to evaluate areas and identify issues. The critique is performed following the conclusion of a drill or exercise using preselected drill and exercise performance objectives.

Provisions are made for federal and ORO representatives to observe and participate in drill and exercise critiques when present.

A written report is prepared following a critique to document whether the objectives were successfully demonstrated.

A remedial exercise is only required if the emergency plan is not satisfactorily tested during the biennial exercise such that NRC, in consultation with FEMA, cannot (1) find reasonable assurance that adequate protective measures would be taken during a radiological emergency, or (2) determine that the ERO has maintained key skills specific to emergency response.

N.1.b	The process used to track findings and associated corrective actions identified by drill and exercise critiques/evaluations, including their assignment and completion, is described.

Failed performance objectives and other programmatic weaknesses are entered into the corrective action program (CAP).

N.1.c	A drill or exercise starts between 6:00 p.m. and 4:00 a.m. at least once every eight-year exercise cycle.

Each NextEra site will conduct at least one off-hours drill or exercise within an eight-year exercise cycle.

An off-hours drill or exercise is established as any time of day on a weekday holiday, or any time of day on a weekend day, or between the hours of 6:00 p.m. and 4:00 a.m. on a normal workday.

The off-hours drill requirement may be satisfied by an actual event provided it meets the above off-hours criteria and the objectives are evaluated and documented in a critique report for the augmentation of the ERO, the transfer of responsibilities, and facility activation.

N.1.d	A drill or exercise is unannounced at least once every eight-year exercise cycle.

Each NextEra site will conduct at least one unannounced drill or exercise within an eight-year cycle.

The unannounced drill requirement may be satisfied by an actual event provided objectives are evaluated and documented in a critique report for the augmentation of the ERO, the transfer of responsibilities, and facility activation.

N.2	Exercises are designed to enable the response organizations' demonstration of the key skills and capabilities necessary to implement the emergency plan. The following two types of exercises are conducted at the frequency noted:

N.2.a	**Plume Exposure Pathway Exercises** Plume exposure pathway exercises are conducted biennially. These exercises include mobilization of licensee and state, local, and tribal government personnel and resources and implementation of emergency plans to demonstrate response capabilities within the plume exposure pathway EPZ.

Each NextEra site will conduct a plume exposure pathway exercise biennially. Specifically, the plume exposure pathway exercise is developed to provide the ERO with the opportunity to demonstrate proficiency in the principal functional areas of emergency response:

- Management and coordination of emergency response
- Accident assessment
- Event classification
- Notification of the OROs
- Assessment of the onsite and offsite impact of radiological release
- PAR development (required only in exercises that include a GE)
- Protective action decision-making (onsite protective actions)
- Plant system repair and mitigative action implementation

OROs will be invited to participate in plume exposure pathway exercises. If an ORO chooses not to participate, their participation is not required and it should be documented that they were given the opportunity to participate.

Biennial plume exposure pathway exercise scenarios are submitted to the NRC under 10 CFR 50.4 at least 60 days before they are held.

N.2.b	**Ingestion Exposure Pathway Exercises** Ingestion exposure pathway exercises are conducted at least once every eight years. These exercises include mobilization of state, local, and tribal government personnel and resources and implementation of emergency plans to demonstrate response capabilities to a release of radioactive materials requiring post-plume phase protective actions within the ingestion exposure pathway EPZ.

NextEra will assist in development and participate as requested in an ingestion exposure pathway exercise to support FEMA evaluation of ORO emergency plan response activities in this area.

The scope, objectives and schedule will be coordinated with appropriate federal emergency organizations and OROs for exercises in which they participate.

N.3	**Exercise Scenario Elements** During each eight-year exercise cycle, biennial, evaluated exercise scenario content is varied to provide the opportunity to demonstrate the key skills and capabilities necessary to respond to the following scenario elements:

N.3.a	**Hostile Action-Based (HAB)** Hostile action directed at the NPP site. This scenario element may be combined with either a radiological release scenario or a no/minimal radiological release scenario, but a no/minimal radiological release scenario should not be included in consecutive HAB exercises at an NPP site.

Each NextEra site will conduct at least one HAB scenario in an exercise within an eight-year cycle.

The HAB scenario will include either a radiological release scenario or no/minimal radiological release scenario, but HAB scenarios combined with a no/minimal radiological release scenario will not be used in consecutive HAB exercises.

N.3.b	**Rapid Escalation** An initial classification of, or rapid escalation to, an SAE or GE.

Each NextEra site will conduct at least one rapid escalation scenario in an exercise within an eight-year cycle.

The rapid escalation scenario will begin with an initial declaration of, or rapid escalation to, the Site Area Emergency classification level while event response is performed from the Control Room.

N.3.c	**No/Minimal Release of Radioactive Materials** No release or an unplanned minimal release of radioactive material which does not require public protective actions. This scenario element is used only once during each eight-year exercise cycle.

Each NextEra site will conduct at least one no/minimal radiological release scenario that does not require PARs in an exercise within an eight-year cycle.

N.3.c.1	The licensee is required to demonstrate the ability to respond to a no/minimal radiological release scenario. State, local, and tribal government response organizations have the option, and are encouraged, to participate jointly in this demonstration. If the offsite organizations elect not to participate in the licensee's required minimal or no release exercise, the OROs will still be obligated to meet the exercise requirements as specified in 44 CFR 350.9.

OROs located within the plume exposure pathway EPZ are invited to participate in exercises with no/minimal radiological release scenarios.

NextEra will support offsite agencies in meeting FEMA demonstration requirements when they elect to not participate in a required no/minimal release scenario that is included in an exercise.

N.3.c.2	When planning for a joint no/minimal radiological release exercise, affected state, local, and tribal jurisdictions, the licensee, and FEMA will identify offsite capabilities that may still need to be evaluated and agree upon appropriate alternative evaluation methods to satisfy FEMA's biennial criteria requirements. Alternative evaluation methods that could be considered during the extent of play negotiations include expansion of the exercise scenario, out of sequence activities, plan reviews, staff assistance visits or other means as described in FEMA guidance.

FEMA will determine whether a no/minimal radiological release scenario is acceptable for use in a full or partial participation biennial exercise.

N.3.d	**Resource Integration** Integration of offsite resources with onsite response.

Each NextEra site will conduct at least one scenario that integrates offsite resources provided by local support organizations with onsite response in an exercise within an eight-year cycle.

Demonstration of resource integration includes briefings, offsite response to the site, and coordination of worker protection, as appropriate to the scenario.

N.3.e	**10 CFR 50.155(b)(2) Strategies** Demonstration of the use of equipment, procedures, and strategies developed in compliance with 10 CFR 50.155(b)(2).

Each NextEra site will conduct at least one scenario requiring demonstration of the ability to transition between procedures and select the strategy(ies) for preventing or mitigating fuel damage and limiting radiological releases, within an eight-year cycle.

The MBDBE exercise scenario will be based in one of the site specific strategies used to mitigate spent fuel pool damage scenarios or one of the 7 strategies for PWRs used to mitigate reactor accidents and maintain containment.

The MBDBE exercise may be conducted separately from the main exercise timeline and sequence of events. This includes the (simulated) deployment and use of equipment associated with these strategies. At a minimum, TSC and OSC ERO staff will participate in this portion of the exercise. Participation of Control Room, EOF, JIC ERO, and offsite officials may be simulated.

Methods to accomplish this demonstration are dependent upon the nature of the postulated initiating event, the plant response/accident sequence, and the ability of responders to select and implement mitigation/management strategies. These methods involve conducting any of the following:

- A demonstration of the transition from a controlling AOP or EOP into the Extensive Damage Mitigation Guidelines (EDMGs), FLEX support guidelines (FSGs), or Severe Accident Management Guidelines (SAMGs).
- A demonstration of the use of EDMGs.
- A demonstration of the use of FSGs.
- A demonstration of the use of SAMGs.

N.4	Drills are designed to enable an organization's demonstration and maintenance of key skills and capabilities necessary to fulfill functional roles. Drills include, but are not limited to, the following at their noted frequencies:

N.4.a	**Emergency Medical Drills** Emergency medical drills are conducted annually. These drills involve a simulated, contaminated individual and contain provisions for participation by support services agencies (i.e., ambulance and offsite medical treatment facility).

Each NextEra site will conduct an onsite simulated medical drill once per calendar year.

The scope of the emergency medical drill will include a simulated on-site injured and contaminated individual and medical/ first aid treatment, including contamination control.

Emergency Medical Drill offsite participation and periodicity for support Hospital and Ambulance services are performed in accordance with the 42 CFR 482.15 regulations and are not included in the scope of the station medical drills.

N.4.b	**Medical Services Drills** Medical services drills are conducted annually at each medical facility designated in the emergency plan. These drills involve a simulated, contaminated emergency worker and/or member of the general public and contain provisions for participation by support services agencies (i.e., ambulance and offsite medical treatment facility).

This element is not applicable to the licensee emergency plan.

N.4.c	**Laboratory Drills** Laboratory drills are conducted biennially at each laboratory designated in the emergency plan. These drills involve demonstration of handling, documenting, provisions for record keeping, and analyzing air, soil, and food samples, as well as quality control and quality assurance processes. These drills also involve an assessment of the laboratory's capacity to handle daily and weekly samples and the volume of samples that can be processed daily or weekly.

This element is not applicable to the licensee emergency plan.

N.4.d	**Environmental Monitoring Drills** Environmental monitoring drills are conducted annually. These drills include direct radiation measurements in the environment, collection and analysis of all sample media (e.g., water, vegetation, soil, and air), and provisions for record keeping.

Each NextEra site will conduct an environmental monitoring drill once per calendar year.

The scope of the environmental monitoring drill will include performance objectives for direct radiation measurements in the environment, collection and analysis of sample media (e.g., water, vegetation, soil, and air), communications, and record keeping.

N.4.e	**Ingestion Pathway and Post-Plume Phase Drills** Ingestion pathway and post-plume phase drills are conducted biennially. These drills involve sample plan development, analysis of lab results from samples, assessment of the impact on food and agricultural products, protective decisions for relocation, and food/crop embargos.

This element is not applicable to the licensee emergency plan.

N.4.f	**Communications Drills** Communications amongst and between emergency response organizations, including those at the state, local, and Federal level, the FMTs, and nuclear facility within both the plume and ingestion exposure pathway EPZs, are tested at the frequencies determined in evaluation criterion F.3. Communications drills include the aspect of understanding the content of messages and can be done in conjunction with the testing described in evaluation criterion F.3.

Each NextEra site will conduct communications drills once per calendar year.

Communications tests described in Element F.3 can be performed as drills provided they include the aspect of understanding the content of messages.

N.4.g	**Post-Accident Sampling Drills** Post-accident sampling drills are conducted annually. These drills address capabilities including analysis of liquid and containment atmosphere samples with simulated elevated radiation levels. This criterion is not applicable if the NPP unit(s) does (do) not have licensing basis requirements for post-accident sampling.

Refer to site annexes for the Post-Accident Sampling Drill requirements.

N.4.h	**Off-Hours Report-In Drills** Off-hours report-in drills are conducted biennially and are unannounced.

Each NextEra site will conduct an off-hours unannounced ERO report-in drill at least once within an eight-year cycle.

The scope of the off-hours unannounced ERO report-in drill will require actual response to the assigned facility.

The Off-Hours Report-In Drill requirement may be satisfied by an actual event provided objectives are evaluated and documented in a critique report.

N.4.i	**Off-Hours Call-In Drills** Off-hours call-in drills are conducted quarterly, such that each ERO member's normally expected response time is assessed at least biennially based on call-in drill responses or an alternate means for determining response time. Some drills are unannounced.

The NextEra ERO notification is an all-call process. Each NextEra site will conduct an off-hours unannounced ERO call-in drill biennially to verify each minimum staffing ERO position meets the required Table B-1 response time.

The scope of the off-hours unannounced ERO call-in drill will require collection of the ERO notification system report which documents response within the required time.

Completion of an Element N.4.h off-hours unannounced ERO report-in drill satisfies the requirements of the off-hours unannounced ERO call-in drill in this element.

The Off-Hours Call-In Drill requirement may be satisfied by an actual event provided the objectives are evaluated and documented in a critique report.

N.4.j	**Onsite Personnel Protective Action Drills** Onsite personnel protective action drills are conducted during every eight-year exercise cycle. These drills demonstrate the NPP site's ability to implement and coordinate protective actions for onsite personnel during hostile action.

Each NextEra site will conduct a protective action drill within an eight-year cycle.

The scope of the protective action drill will demonstrate the ability to implement and coordinate protective actions for onsite personnel during a hostile action using one or more of the following:

- Warning personnel in the OCA outside the protected area
- Evacuation of personnel from target buildings, including security personnel
- Site evacuation by opening (while continuing to defend) security gates (demonstrated through discussion/table-top)
- Dispersal of licensed operators
- Sheltering of personnel in structures away from potential site targets
- Arrangements for accounting for personnel after the attack

N.4.k	**Aircraft Threat/Attack Response Drills** Aircraft threat/attack response drills are conducted during every eight-year exercise cycle. These drills demonstrate the use of procedures and protective measures developed for responding to hostile action involving an aircraft threat or attack.

Each NextEra site will conduct an aircraft threat/attack response drill at least once within an eight-year cycle.

This drill may be combined with the beyond design basis demonstration in Element N.3.e.

N.4.l	**Minimum Staffing Drills** An ERO minimum staffing (no participation of non-minimum augmenting ERO personnel) drill is conducted at least once during every eight-year exercise cycle

Each NextEra site will conduct a minimum staffing drill at least once within an eight-year cycle.

A minimum staffing response drill requires facility activation, full transfer of responsibilities from the Control Room, and demonstration of event assessment and response activities.

N.4.m	**On-Shift Response Drills** An ERO on-shift response (ERO augmentation no sooner than 90 minutes) drill is conducted at least once during every eight-year exercise cycle

Each NextEra site will conduct an ERO on-shift response drill at least once within an eight-year cycle.

An on-shift response drill requires demonstration of classification, notification and PAR functions with minimum shift staffing (no support from augmenting ERO personnel no sooner than 90 minutes after event declaration) using an Onshift Staffing Analysis event modified to support the objectives.

O: Radiological Emergency Response Training

Radiological emergency response training is provided to those who may be called on to assist in an emergency.

Regulatory References: 10 CFR 50.47(b)(15); 44 CFR 350.5(a)(15);
10 CFR Part 50, Appendix E.IV.F

O.1	Each organization ensures the training of emergency responders and other appropriate individuals with an operational role is described in the emergency plan. Initial training and at least annual retraining are provided.

Initial and continuing training is conducted to ensure ERO personnel are properly qualified to their specific position. Categories of ERO personnel requiring training include:

1. Emergency Directors (includes the aspect of classification, notification and PARs)
2. Accident Assessment
3. Radiation Protection and Monitoring
   a. ERO RPT position is qualified to ANSI technician standards.
   b. ERO RP Qualified Individual position is task qualified to perform the following:
      - Provide RP coverage for accessing known radiological environments (which includes respirator qualifications)
      - Control dosimetry and RCA access
      - Provide in-plant surveys
   c. ERO Field Monitoring Team Technicians receive initial training for the tasks they will be expected to perform during an emergency. The following general topics will be included in the training:
      - Equipment and equipment checks
      - Communications
      - Plume tracking techniques
      - Personnel monitoring
      - Emergency exposure criteria
      - Locations and use of radiological emergency equipment
4. Repair and Damage Control Teams
   a. Lead OSC Supervisor position is trained to perform RP supervisory tasks.

b. Operations, maintenance, chemistry and radiation protection personnel who would be assigned to repair and damage control teams are trained as part of their normal job-specific duties to respond to both normal and abnormal plant conditions and work under direction of an ERO supervisor in the OSC.

5. Security

   a. Security personnel receive emergency plan training as part of their normal job specific training.

   b. Security personnel assigned a specific ERO position receive training on emergency plan related tasks.

6. Fire Brigade – Refer to the site fire protection program.

7. First Aid – Personnel assigned as first aid responders maintain qualifications equivalent to Red Cross Standard First Aid techniques.

O.1.a	Site-specific emergency response training is developed and conducted for those offsite organizations that may be called upon to provide onsite assistance in the event of an emergency.

NextEra offers emergency response training annually to local support organizations. Training includes basic radiation protection, the notification process for their organization, and their organization's expected role.

The offered training for local support organizations who will enter the site also includes the general site layout, site access procedures, and the identity (by position and title) of the onsite individual who will control their support activities.

O.2	The ERO training program consists of learning objectives that are used to develop and maintain key skills. This includes a systematic analysis of jobs and tasks to be performed from which learning objectives are derived.

The ERO training program is developed and evaluated based on position-specific responsibilities/tasks using Systems Approach to Training (SAT) principles, when applicable.

O.2.a	The ERO training program is reviewed at least annually and revised as necessary.

Changes to the training program are identified from trainee feedback and by critique items captured during drills and incorporated per the principles of the SAT process.

O.2.b	Training sessions that provide performance opportunities to develop, maintain, or demonstrate key skills are critiqued in order to identify weak or deficient areas that need correction.

All individuals participating in the ERO training program are given the opportunity to provide feedback of training sessions. Any weak or deficient areas identified and corrected.

P: Responsibility for the Planning Effort

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

Regulatory References: 10 CFR 50.47(b)(16); 44 CFR 350.5(a)(16); 10 CFR Part 50, Appendix E.IV.B and G

P.1	The training program, including initial training and periodic retraining, of individuals responsible for the planning effort is described.

Initial EP program training for new EP staff members is performed and documented.

Continuing training for EP staff members is performed periodically through job related opportunities (such as courses, workshops, information exchange meetings with other licensees, conferences held by industry and government agencies, etc.) to maintain current knowledge of the overall planning effort or to enhance working knowledge of plant operations.

P.2	The individual with the overall authority and responsibility for radiological emergency response planning is identified by title/position.

The Chief Nuclear Officer has the overall authority and responsibility for the NextEra Common Emergency Plan.

P.3	The individual(s) with the responsibility for the development, maintenance, review, updating, and distribution of emergency plans, as well as the coordination of these plans with other response organizations, is identified by title/position.

The site Regulatory Affairs Managers are responsible for the development, maintenance, review, and updating of the emergency plan, as well as the coordination of the plan with other response organizations.

P.4	The process for reviewing annually, and updating as necessary, the emergency plan, implementing procedures, maps, charts, and agreements is described. The process includes a method for recording changes made to the documents and, when appropriate, how those changes are retained.

The formal emergency plan (as defined in the introduction section) and the emergency plan implementing procedures (as defined in Section P.7) will be reviewed on an annual basis and updated if necessary. Any changes to regulations, issues identified by drills and exercises, assessments and audits, or other updates will be evaluated and incorporated into the emergency plan if warranted.

Letters of Agreement will be reviewed and verified on an annual basis, and updated if warranted.

Changes will be processed in accordance with 10 CFR 50.54(q) requirements and NextEra document control/records management procedures.

P.5	Provisions for distributing the emergency plan and implementing procedures to all organizations and appropriate individuals with responsibility for implementation of the plan/procedures is described.

Revised copies of the emergency plan are posted and distributed in accordance with NextEra records management system procedures.

Changes to the emergency plan are submitted to the NRC in accordance with 10 CFR 50.4.

P.6	A listing of annexes, appendices, and supporting plans and their originating agency is included in the emergency plan.

Refer to Introduction Section for a listing of emergency plan extension documents (documents that are considered part of the emergency plan but are maintained separately).

Emergency plans developed by other agencies that support the NextEra Common Emergency Plan include the following:

- Department of Homeland Security National Response Framework
- U.S. Nuclear Regulatory Commission Incident Response Plan

Plans for organizations that support individual sites are listed in the site annexes.

P.7	An appendix containing a listing by title of the procedures required to maintain and implement the emergency plan is included. The listing includes the section(s) of the emergency plan to be implemented by each procedure.

Table P.7-1 provides a listing, by title, of the common response and maintenance procedures required to implement the emergency plan, and the section(s) of the emergency plan to be implemented by each procedure.

A listing, by title, of the site-specific response and maintenance procedures required to implement the emergency plan is provided in the site annexes.

P.8	A table of contents and a cross-reference index to each of the NUREG-0654/FEMA-REP-1, Rev. 2 evaluation criteria are included. The evaluation criteria that do not apply are identified.

The NextEra emergency plan contains a specific table of contents. The emergency plan paragraphs are numbered corresponding to the NUREG-0654/FEMA-REP-1 R2 evaluation criteria. Evaluation criteria which do not apply to utilities are listed and identified.

P.9	Provisions for addressing the requirements of 10 CFR 50.54(t) are described.

Emergency preparedness program elements are reviewed by persons that have no direct responsibility for the implementation of the emergency preparedness program, in accordance with 10 CFR 50.54(t).

P.10	The administrative process for the periodic review and updating of contact information identified in the emergency plan and implementing procedures is described.

The NextEra emergency communications directory contains select contact numbers for ORO and support organizations identified in the emergency plan and implementing procedures. The ERO call-out system contains comprehensive ERO contact information.

NextEra ERO contact information is verified semi-annually and updated as needed.

Facility and support contact information in the emergency communications directory is verified annually and updated as needed.

P.11	The process for entering EP program-related issues that could reduce the effectiveness of the emergency plan into the site-wide corrective action program is described.

The NextEra corrective action program is used to capture all events that do not meet program regulations, requirements, standards, or are otherwise conditions adverse to quality.

P.12	The process to evaluate changes in plant configuration for their impact on the effectiveness of the emergency plan is described.

Changes in plant configuration are evaluated for their impact on the effectiveness of the emergency plan through the plant modification or license compliance review processes specified in change procedures and, if required, the 10 CFR 50.54(q) change evaluation process.

Table P.7-1: Emergency Plan Implementing Procedures

Document ID	Document title	Plan Sections Implemented
	[To be developed following E-Plan approval]	

Appendix 1 Definitions

Accident: any unforeseen, or unintentional occurrence or mishap resulting in, or potentially resulting in, physical injury or injury due to radiation exposure or excessive exposure to radioactive materials.

Activated: an emergency response facility is declared activated when minimum staffing requirements are met, key systems and equipment are verified operational, and the ERO personnel are prepared to perform their functions.

Annual: For drills and exercise periodicity, annual is once per calendar year. For training and qualification periodicity and work products, annual is every 12 months not to exceed 15 months.

Concept of Operations: delineation of an organization's roles and responsibilities and how the organization will function to accomplish those responsibilities.

Dosimeter: an instrument used to measure and record radiation doses or dose rates.

Emergency Operations Center (EOC): a facility that is the primary base of emergency operations for an ORO in a radiological incident.

Emergency Planning Zone (EPZ): a geographic area surrounding a commercial NPP for which emergency planning is needed to ensure that prompt and effective actions can be taken by OROs to protect public health and safety in the event of a radiological incident. The plume exposure pathway EPZ is approximately 10 miles in radius, while the ingestion exposure pathway EPZ has a radius of approximately 50 miles.

Emergency Response Data System (ERDS): a direct near real-time electronic data link between the licensee's onsite computer system and the NRC Operations Center that provides for the automated transmission of a limited data set of selected plant parameters.

Emergency Response Organization (ERO): the personnel assigned to perform tasks and activities associated with implementation of a licensee's emergency plan for coping with radiological incidents.

Evacuation Time Estimate (ETE): a calculation of the time it would take to evacuate the public within the plume exposure pathway EPZ under emergency conditions.

Evaluation: the process of observing drill or exercise performance to identify strengths and opportunities for improvement in an entity's emergency preparedness and response capabilities.

Field Monitoring Team (FMT): a group used to detect and monitor radiation in the environment.

Ingestion Exposure Pathway: the principal exposure from this pathway would be from ingestion of contaminated water or foods, such as milk or fresh vegetables.

Ingestion Exposure Pathway Emergency Planning Zone: a geographic area, approximately 50 miles in radius surrounding a commercial NPP.

Appendix 1 Definitions

Letter of Agreement (LOA): a document executed between two or more parties outlining specific arrangements relating to the accomplishment of an action. Letters of agreement may cover personnel, equipment, or other types of emergency support, and may take the form of letters, contracts, purchase orders, or other procurement mechanisms.

Memorandum of Understanding (MOU): a document which details the respective authorities and responsibilities of the signatory organizations for specified radiological emergency response planning, preparedness, or response.

Offsite Response Organization (ORO): state, tribal, or local governmental organization that is responsible for carrying out emergency response functions during a radiological emergency.

Offsite: the area outside the Protected Area.

Onsite: the area inside the Protected Area.

Owner Controlled Area (OCA): That portion of company property surrounding and including the station which is subject to limited access and control as deemed appropriate.

Planning Standard (PS): one of the 16 emergency preparedness planning standards established in 10 CFR 50.47(b) that the emergency plan must meet and which are supported by the corresponding sections of 10 CFR 50 Appendix E.

Plume Exposure Pathway: a term describing the means by which whole body radiation exposure occurs as a result of immersion in a gaseous release of radioactive material. The principal exposure sources from this pathway are: (a) whole body external exposure to gamma radiation from the plume and from deposited materials, and (b) inhalation exposure from the passing radioactive plume. The duration of principal potential exposures could range in length from 30 minutes to days.

Plume Exposure Pathway Emergency Planning Zone: a geographic area approximately 10 miles in radius surrounding a commercial NPP.

Post-Plume Phase: includes response activities that occur after a release has been terminated. Also known as the “Environmental Phase”.

Potassium Iodide (KI): a prophylactic compound containing a stable (i.e., non-radioactive) form of iodine that can be used effectively to block the uptake of radioactive iodine by the thyroid gland in a human being.

Protected Area: the area (within the Owner Controlled Area) occupied by the nuclear unit(s) and associated equipment and facilities enclosed within the security perimeter fence. The area within which accountability of personnel is maintained in an emergency when required.

Protective Action Guide (PAG): The projected dose to an individual, resulting from a radiological incident at which a specific protective action to reduce or avoid that dose is warranted.

Appendix 1 Definitions

Protective Action Recommendation (PAR): a formal advisement from a NPP licensee to state and/or county government officials, or from state officials to other offsite officials, concerning emergency measures that should be taken to protect the public from exposure to radiation.

Radioprotective Drug: a chemical compound or substance serving to protect or aid in protecting against the injurious effects of radiation.

Reasonable Assurance: a determination that ORO and utility plans and preparedness are adequate to protect public health and safety in the emergency planning areas of commercial NPPs.

Reception Center: a pre-designated facility located outside the plume exposure pathway EPZ at which the evacuated public can register; receive radiation monitoring and decontamination; receive assistance in contacting others; receive directions to congregate care centers; reunite with others; and receive general information. It generally refers to a facility where monitoring, decontamination, and registration of evacuees are conducted. A reception center is also referred to as a registration center or public registration and decontamination center.

Site Boundary: the line beyond which the land or property is not owned or controlled by the licensee.

Thyroid Committed Dose Equivalent (CDE): the dose to the thyroid that will be received from an intake of radioactive material by an individual during the 50-year period following the intake (10 CFR 20.1003).

Total Effective Dose Equivalent (TEDE): the sum of the deep dose equivalent (for external exposures) and committed effective dose equivalent (for internal exposures).

Transient Population: persons who do not permanently reside in the plume exposure pathway EPZ, but may be present during an emergency.

Appendix 2 Abbreviations and Acronyms

AOP	Abnormal Operating Procedures
CFR	Code of Federal Regulations
CR	Control Room
DLR	Dosimeter of Legal Record (synonymous with TLD)
DRD	Direct-reading Dosimeter
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
ENS	Emergency Notification System
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EP	Emergency Preparedness
EPA	Environmental Protection Agency
EPZ	Emergency Planning Zone
ERDS	Emergency Response Data System
ERF	Emergency Response Facility
ERO	Emergency Response Organization
ETE	Evacuation Time Estimate
FEMA	Federal Emergency Management Agency
FLEX	Diverse and Flexible Coping Strategies
FMT	Field Monitoring Team
GE	General Emergency
HAB	Hostile Action-Based
HPN	Health Physics Network
I&C	Instrumentation and Control
ICP	Incident Command Post
IT	Information Technology
JIC	Joint Information Center
JIS	Joint Information System
KI	Potassium Iodide
LLEA	Local Law Enforcement Agency
LOA	Letter of Agreement
MOU	Memorandum of Understanding
NEI	Nuclear Energy Institute
NPP	Nuclear Power Plant
NRC	Nuclear Regulatory Commission
OCA	Owner Controlled Area
ORO	Offsite Response Organization
OSC	Operations Support Center

Appendix 2 Abbreviations and Acronyms

PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation
HAB	Hostile Action-Based
REP	Radiological Emergency Preparedness
RWP	Radiation Work Permit
SAE	Site Area Emergency
TEDE	Total Effective Dose Equivalent
TLD	Thermoluminescent Dosimeter (synonymous with DLR)
TSC	Technical Support Center
UE	Unusual Event

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

1. The applicant's emergency plans shall contain, but not necessarily be limited to, information needed to demonstrate compliance with the elements set forth below, i.e., organization for coping with radiological emergencies, assessment actions, activation of emergency organization, notification procedures, emergency facilities and equipment, training, maintaining emergency preparedness, recovery, and onsite protective actions during hostile action.

Regulatory Criteria	E-Plan
2. This nuclear power reactor license applicant shall also provide an analysis of the time required to evacuate various sectors and distances within the plume exposure pathway EPZ for transient and permanent populations, using the most recent U.S. Census Bureau data as of the date the applicant submits its application to the NRC.	J.8
3. Nuclear power reactor licensees shall use NRC approved evacuation time estimates (ETEs) and updates to the ETEs in the formulation of protective action recommendations and shall provide the ETEs and ETE updates to State and local governmental authorities for use in developing offsite protective action strategies.	J.8
and shall provide the ETEs and ETE updates to State and local governmental authorities for use in developing offsite protective action strategies.	J.7
4. Within 365 days of the later of the date of the availability of the most recent decennial census data from the U.S. Census Bureau or December 23, 2011, nuclear power reactor licensees shall develop an ETE analysis using this decennial data and submit it under § 50.4 to the NRC. These licensees shall submit this ETE analysis to the NRC at least 180 days before using it to form protective action recommendations and providing it to state and local governmental authorities for use in developing offsite protective action strategies.	J.8.a
5. During the years between decennial censuses, nuclear power reactor licensees shall estimate EPZ permanent resident population changes once a year, but no later than 365 days from the date of the previous estimate, using the most recent U.S. Census Bureau annual resident population estimate and state/local government population data, if available. These licensees shall maintain these estimates so that they are available for NRC inspection during the period between decennial censuses and shall submit these estimates to the NRC with any updated ETE analysis.	J.8.a
6. If at any time during the decennial period, the EPZ permanent resident population increases such that it causes the longest ETE value for the 2-mile zone or 5-mile zone, including all affected Emergency Response Planning Areas, or for the entire 10-mile EPZ to increase by 25 percent or 30 minutes, whichever is less, from the nuclear power reactor licensee's currently NRC approved or updated ETE, the licensee shall update the ETE analysis to reflect the impact of that population increase.	J.8.a

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
The licensee shall submit the updated ETE analysis to the NRC under § 50.4 no later than 365 days after the licensee's determination that the criteria for updating the ETE have been met and at least 180 days before using it to form protective action recommendations and providing it to state and local governmental authorities for use in developing offsite protective action strategies.	J.8.a
7. After an applicant for a combined license under part 52 of this chapter receives its license, the licensee shall conduct at least one review of any changes in the population of its EPZ at least 365 days prior to its scheduled fuel load. The licensee shall estimate EPZ permanent resident population changes using the most recent U.S. Census Bureau annual resident population estimate and state/local government population data, if available. If the EPZ permanent resident population increases such that it causes the longest ETE value for the 2-mile zone or 5-mile zone, including all affected Emergency Response Planning Areas, or for the entire 10-mile EPZ, to increase by 25 percent or 30 minutes, whichever is less, from the licensee's currently approved ETE, the licensee shall update the ETE analysis to reflect the impact of that population increase. The licensee shall submit the updated ETE analysis to the NRC for review under § 50.4 of this chapter no later than 365 days before the licensee's scheduled fuel load.	N/A

10 CFR 50 Appendix E.IV.A – Organization

The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization and the means for notification of such individuals in the event of an emergency. Specifically, the following shall be included:

Regulatory Criteria	E-Plan
1. A description of the normal plant operating organization.	B.1.a
2. A description of the onsite ERO with a detailed discussion of:	
a. Authorities, responsibilities, and duties of the individual(s) who will take charge during an emergency;	B.1.a B.2 B.2.a
b. Plant staff emergency assignments;	B.1.a
c. Authorities, responsibilities, and duties of an onsite emergency coordinator who shall be in charge of the exchange of information with offsite authorities responsible for coordinating and implementing offsite emergency measures.	B.1.a B.2 B.2.a
3. A description, by position and function to be performed, of the licensee's headquarters personnel who will be sent to the plant site to augment the onsite emergency organization.	N/A

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
4. Identification, by position and function to be performed, of persons within the licensee organization who will be responsible for making offsite dose projections,	B.1.a
and a description of how these projections will be made	I.6
and the results transmitted to state and local authorities, NRC, and other appropriate governmental entities.	E.3 I.10
5. Identification, by position and function to be performed, of other employees of the licensee with special qualifications for coping with emergency conditions that may arise.	B.1.a
Other persons with special qualifications, such as consultants, who are not employees of the licensee and who may be called upon for assistance for emergencies shall also be identified. The special qualifications of these persons shall be described.	B.5
6. A description of the local offsite services to be provided in support of the licensee's emergency organization.	A.1.a (5)
7. By June 23, 2014, identification of, and a description of the assistance expected from, appropriate state, local, and federal agencies with responsibilities for coping with emergencies, including hostile action at the site. For purposes of this appendix, "hostile action" is defined as an act directed toward a nuclear power plant or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force.	A.4
8. Identification of the state and/or local officials responsible for planning for, ordering, and controlling appropriate protective actions, including evacuations when necessary.	A.1.a.3
9. By December 24, 2012, for nuclear power reactor licensees, a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan.	B.1.a

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

10 CFR 50 Appendix E.IV.B – Assessment Actions

Regulatory Criteria	E-Plan
1. The means to be used for determining the magnitude of, and for continually assessing the impact of, the release of radioactive materials shall be described, including emergency action levels that are to be used as criteria for determining the need for notification and participation of local and state agencies, the Commission, and other federal agencies, and the emergency action levels that are to be used for determining when and what type of protective measures should be considered within and outside the site boundary to protect health and safety.	I.4 I.4.a I.6
The emergency action levels shall be based on in-plant conditions and instrumentation in addition to onsite and offsite monitoring. By June 20, 2012, for nuclear power reactor licensees, these action levels must include hostile action that may adversely affect the nuclear power plant.	D.1.a
The initial emergency action levels shall be discussed and agreed on by the applicant or licensee and state and local governmental authorities, and approved by the NRC.	D.1.b
Thereafter, emergency action levels shall be reviewed with the state and local governmental authorities on an annual basis.	D.1.b
2. A licensee desiring to change its entire emergency action level scheme shall submit an application for an amendment to its license and receive NRC approval before implementing the change.	D.1.a
Licensees shall follow the change process in § 50.54(q) for all other emergency action level changes.	P.4

10 CFR 50, Appendix E.IV.C – Activation of Emergency Organization

Regulatory Criteria	E-Plan
1. The entire spectrum of emergency conditions that involve the alerting or activating of progressively larger segments of the total emergency organization shall be described.	D.1 D.3
The communication steps to be taken to alert or activate emergency personnel under each class of emergency shall be described.	E.1.1
Emergency action levels (based not only on onsite and offsite radiation monitoring information but also on readings from a number of sensors that indicate a potential emergency, such as the pressure in containment and the response of the Emergency Core Cooling System) for notification of offsite agencies shall be described.	D.1
The existence, but not the details, of a message authentication scheme shall be noted for such agencies.	E.1.a

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
The emergency classes defined shall include: (1) Notification of unusual events, (2) alert, (3) site area emergency, and (4) general emergency. These classes are further discussed in NUREG–0654/FEMA–REP–1.	D.1
2. By June 20, 2012, nuclear power reactor licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible following identification of the appropriate emergency classification level.	D.2
Licensees shall not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an emergency action level that has been exceeded.	Site EAL TBD
Licensees shall not construe these criteria as preventing implementation of response actions deemed by the licensee to be necessary to protect public health and safety provided that any delay in declaration does not deny the state and local authorities the opportunity to implement measures necessary to protect the public health and safety.	Site EAL TBD

10 CFR 50, Appendix E.IV.D – Notification Procedures

Regulatory Criteria	E-Plan
1. Administrative and physical means for notifying local, state, and federal officials and agencies and agreements reached with these officials and agencies for the prompt notification of the public and for public evacuation or other protective measures, should they become necessary, shall be described. This description shall include identification of the appropriate officials, by title and agency, of the state and local government agencies within the EPZs.	E.2
2. Provisions shall be described for yearly dissemination to the public within the plume exposure pathway EPZ of basic emergency planning information, such as the methods and times required for public notification and the protective actions planned if an accident occurs, general information as to the nature and effects of radiation, and a listing of local broadcast stations that will be used for dissemination of information during an emergency.	G.1
Signs or other measures shall also be used to disseminate to any transient population within the plume exposure pathway EPZ appropriate information that would be helpful if an accident occurs.	G.1
3. A licensee shall have the capability to notify responsible state and local governmental agencies within 15 minutes after declaring an emergency.	E.1.b

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
The licensee shall demonstrate that the appropriate governmental authorities have the capability to make a public alerting and notification decision promptly on being informed by the licensee of an emergency condition.	E.2
Prior to initial operation greater than 5 percent of rated thermal power of the first reactor at a site, each nuclear power reactor licensee shall demonstrate that administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway EPZ.	N/A
The design objective of the prompt public alert and notification system shall be to have the capability to essentially complete the initial alerting and initiate notification of the public within the plume exposure pathway EPZ within about 15 minutes. The use of this alerting and notification capability will range from immediate alerting and notification of the public (within 15 minutes of the time that state and local officials are notified that a situation exists requiring urgent action) to the more likely events where there is substantial time available for the appropriate governmental authorities to make a judgment whether or not to activate the public alert and notification system.	E.2
The alerting and notification capability shall additionally include administrative and physical means for a backup method of public alerting and notification capable of being used in the event the primary method of alerting and notification is unavailable during an emergency to alert or notify all or portions of the plume exposure pathway EPZ population. The backup method shall have the capability to alert and notify the public within the plume exposure pathway EPZ, but does not need to meet the 15-minute design objective for the primary prompt public alert and notification system.	E.2
When there is a decision to activate the alert and notification system, the appropriate governmental authorities will determine whether to activate the entire alert and notification system simultaneously or in a graduated or staged manner. The responsibility for activating such a public alert and notification system shall remain with the appropriate governmental authorities.	N/A

10 CFR 50, Appendix E.IV.E – Emergency Facilities and Equipment

Adequate provisions shall be made and described for emergency facilities and equipment, including:

Regulatory Criteria	E-Plan
1. Equipment at the site for personnel monitoring;	K.1.b K.1.c
2. Equipment for determining the magnitude of and for continuously assessing the impact of the release of radioactive materials to the environment;	I.6 I.7 I.8 H.7

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
3. Facilities and supplies at the site for decontamination of onsite individuals;	J.3 K.1.e
4. Facilities and medical supplies at the site for appropriate emergency first aid treatment;	L.2.a
5. Arrangements for medical service providers qualified to handle radiological emergencies onsite;	L.2.b
6. Arrangements for transportation of contaminated injured individuals from the site to specifically identified treatment facilities outside the site boundary;	L.4
7. Arrangements for treatment of individuals injured in support of licensed activities on the site at treatment facilities outside the site boundary;	L.2.b
8.a (i) A licensee onsite technical support center and an emergency operations facility from which effective direction can be given and effective control can be exercised during an emergency;	H.1 H.3
8.a (ii) For nuclear power reactor licensees, a licensee onsite operational support center;	H.2
8.b For a nuclear power reactor licensee's EOF required by paragraph 8.a of this section, either a facility located between 10 miles and 25 miles of the nuclear power reactor site(s), or a primary facility located less than 10 miles from the nuclear power reactor site(s) and a backup facility located between 10 miles and 25 miles of the nuclear power reactor site(s). An EOF may serve more than one nuclear power reactor site. A licensee desiring to locate an EOF more than 25 miles from a nuclear power reactor site shall request prior Commission approval by submitting an application for an amendment to its license.	H.3
For an EOF located more than 25 miles from a nuclear power reactor site, provisions must be made for locating NRC and offsite responders closer to the nuclear power reactor site so that NRC and offsite responders can interact face-to-face with emergency response personnel entering and leaving the nuclear power reactor site. Provisions for locating NRC and offsite responders closer to a nuclear power reactor site that is more than 25 miles from the EOF must include the following:	H.3.a
(1) Space for members of an NRC site team and federal, state, and local responders;	C.5
(2) Additional space for conducting briefings with emergency response personnel;	C.5
(3) Communication with other licensee and offsite emergency response facilities;	C.5

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
(4) Access to plant data and radiological information; and	C.5
(5) Access to copying equipment and office supplies;	C.5
8.c By June 20, 2012, for a nuclear power reactor licensee's EOF required by paragraph 8.a of this section, a facility having the following capabilities:	
(1) The capability for obtaining and displaying plant data and radiological information for each reactor at a nuclear power reactor site and for each nuclear power reactor site that the facility serves;	H.3
(2) The capability to analyze plant technical information and provide technical briefings on event conditions and prognosis to licensee and offsite response organizations for each reactor at a nuclear power reactor site and for each nuclear power reactor site that the facility serves; and	H.3
(3) The capability to support response to events occurring simultaneously at more than one nuclear power reactor site if the emergency operations facility serves more than one site; and	H.3
8.d For nuclear power reactor licensees, an alternative facility (or facilities) that would be accessible even if the site is under threat of or experiencing hostile action, to function as a staging area for augmentation of emergency response staff and collectively having the following characteristics:	H.4
• the capability for communication with the EOF, Control Room, and plant security;	H.4
• the capability to perform offsite notifications;	H.4
• and the capability for engineering assessment activities, including damage control team planning and preparation, for use when onsite emergency facilities cannot be safely accessed during hostile action.	H.3.b H.4
The requirements in this paragraph 8.d must be implemented no later than December 23, 2014, with the exception of the capability for staging emergency response organization personnel at the alternative facility (or facilities) and the capability for communications with the emergency operations facility, Control Room, and plant security, which must be implemented no later than June 20, 2012.	N/A
8.e A licensee shall not be subject to the requirements of paragraph 8.b of this section for an existing EOF approved as of December 23, 2011.	N/A

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
9. At least one onsite and one offsite communications system; each system shall have a backup power source.	F.1.a
All communication plans shall have arrangements for emergencies, including titles and alternates for those in charge at both ends of the communication links and the primary and backup means of communication. Where consistent with the function of the governmental agency, these arrangements will include:	E.1
a. Provision for communications with contiguous state/local governments within the plume exposure pathway EPZ.	E.1 F.1.a
Such communications shall be tested monthly.	F.3
b. Provision for communications with federal emergency response organizations.	E.1 F.1.a
Such communications systems shall be tested annually.	F.3
c. Provision for communications among the nuclear power reactor control room, the onsite TSC, and the EOF; and among the nuclear facility, the principal state and local emergency operations centers, and the field assessment teams.	F.1
Such communications systems shall be tested annually.	F.3
d. Provisions for communications by the licensee with NRC Headquarters and the appropriate NRC Regional Office Operations Center from the nuclear power reactor control room, the onsite TSC, and the EOF.	E.1 F.1
Such communications shall be tested monthly.	F.3

10 CFR 50, Appendix E.IV.F – Training

Regulatory Criteria	E-Plan
1. The program to provide for:	
(a) The training of employees and exercising, by periodic drills, of emergency plans to ensure that employees of the licensee are familiar with their specific emergency response duties, and	N.4 O.1
(b) The participation in the training and drills by other persons whose assistance may be needed in the event of a radiological emergency shall be described.	N.4.a O.1.a
This shall include a description of specialized initial training and periodic retraining programs to be provided to each of the following categories of emergency personnel:	O.1

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
i. Directors and/or coordinators of the plant emergency organization;	O.1 (1)
ii. Personnel responsible for accident assessment, including control room shift personnel;	O.1 (2)
iii. Radiological monitoring teams;	O.1 (3)
iv. Fire control teams (fire brigades);	O.1 (6)
v. Repair and damage control teams;	O.1 (4)
vi. First aid and rescue teams;	O.1 (7)
vii. Medical support personnel;	O.1 (6) O.1.a
viii. Licensee's headquarters support personnel;	N/A
ix. Security personnel.	O.1 (5)
In addition, a radiological orientation training program shall be made available to local services personnel; e.g., local emergency services/Civil Defense, local law enforcement personnel, local news media persons.	O.1.a G.5
2. The plan shall describe provisions for the conduct of emergency preparedness exercises as follows: Exercises shall test the adequacy of timing and content of implementing procedures and methods, test emergency equipment and communications networks, test the public alert and notification system, and ensure that emergency organization personnel are familiar with their duties.	N.1
2.a A full participation exercise which tests as much of the licensee, state, and local emergency plans as is reasonably achievable without mandatory public participation shall be conducted for each site at which a power reactor is located.	N.2.a
Nuclear power reactor licensees shall submit exercise scenarios under § 50.4 at least 60 days before use in a full participation exercise required by this paragraph 2.a.	N.2.a

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
(i) For an operating license issued under this part, this exercise must be conducted within 2 years before the issuance of the first operating license for full power (one authorizing operation above 5 percent of rated thermal power) of the first reactor and shall include participation by each state and local government within the plume exposure pathway EPZ and each state within the ingestion exposure pathway EPZ. If the full participation exercise is conducted more than 1 year prior to issuance of an operating licensee for full power, an exercise which tests the licensee's onsite emergency plans must be conducted within one year before issuance of an operating license for full power. This exercise need not have state or local government participation.	N/A
(ii) For a combined license issued under part 52 of this chapter, this exercise must be conducted within two years of the scheduled date for initial loading of fuel. If the first full participation exercise is conducted more than one year before the scheduled date for initial loading of fuel, an exercise which tests the licensee's onsite emergency plans must be conducted within one year before the scheduled date for initial loading of fuel. This exercise need not have state or local government participation. If FEMA identifies one or more deficiencies in the state of offsite emergency preparedness as the result of the first full participation exercise, or if the Commission finds that the state of emergency preparedness does not provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency, the provisions of § 50.54(gg) apply.	N/A
(iii) For a combined license issued under part 52 of this chapter, if the applicant currently has an operating reactor at the site, an exercise, either full or partial participation, shall be conducted for each subsequent reactor constructed on the site. This exercise may be incorporated in the exercise requirements of Sections IV.F.2.b. and c. in this appendix. If FEMA identifies one or more deficiencies in the state of offsite emergency preparedness as the result of this exercise for the new reactor, or if the Commission finds that the state of emergency preparedness does not provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency, the provisions of § 50.54(gg) apply.	N/A
2.b Each licensee at each site shall conduct a subsequent exercise of its onsite emergency plan every 2 years.	N.2.a
Nuclear power reactor licensees shall submit exercise scenarios under § 50.4 at least 60 days before use in an exercise required by this paragraph 2.b.	N.2.a
The exercise may be included in the full participation biennial exercise required by paragraph 2.c. of this section.	N.2.a

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
In addition, the licensee shall take actions necessary to ensure that adequate emergency response capabilities are maintained during the interval between biennial exercises by conducting drills, including at least one drill involving a combination of some of the principal functional areas of the licensee's onsite emergency response capabilities. The principal functional areas of emergency response include activities such as management and coordination of emergency response, accident assessment, event classification, notification of offsite authorities, assessment of the onsite and offsite impact of radiological releases, protective action recommendation development, protective action decision making, plant system repair and mitigative action implementation. During these drills, activation of all of the licensee's emergency response facilities (TSC, OSC, and the EOF) would not be necessary, licensees would have the opportunity to consider accident management strategies, supervised instruction would be permitted, operating staff in all participating facilities would have the opportunity to resolve problems (success paths) rather than have controllers intervene, and the drills may focus on the onsite exercise training objectives.	N.4
2.c Offsite plans for each site shall be exercised biennially with full participation by each offsite authority having a role under the radiological response plan. Where the offsite authority has a role under a radiological response plan for more than one site, it shall fully participate in one exercise every two years and shall, at least, partially participate in other offsite plan exercises in this period.	N.2.a
If two different licensees each have licensed facilities located either on the same site or on adjacent, contiguous sites, and share most of the elements defining co-located licensees, then each licensee shall:	N/A
(1) Conduct an exercise biennially of its onsite emergency plan;	N/A
(2) Participate quadrennially in an offsite biennial full or partial participation exercise;	N/A
(3) Conduct emergency preparedness activities and interactions in the years between its participation in the offsite full or partial participation exercise with offsite authorities, to test and maintain interface among the affected state and local authorities and the licensee. Co-located licensees shall also participate in emergency preparedness activities and interaction with offsite authorities for the period between exercises;	N/A
(4) Conduct a hostile action exercise of its onsite emergency plan in each exercise cycle; and	N/A
(5) Participate in an offsite biennial full or partial participation hostile action exercise in alternating exercise cycles.	N/A

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
2.d Each state with responsibility for nuclear power reactor emergency preparedness should fully participate in the ingestion pathway portion of exercises at least once every exercise cycle. In states with more than one nuclear power reactor plume exposure pathway EPZ, the state should rotate this participation from site to site.	N/A
Each state with responsibility for nuclear power reactor emergency preparedness should fully participate in a hostile action exercise at least once every cycle and should fully participate in one hostile action exercise by December 31, 2015. States with more than one nuclear power reactor plume exposure pathway EPZ should rotate this participation from site to site.	N/A
2.e Licensees shall enable any state or local government located within the plume exposure pathway EPZ to participate in the licensee's drills when requested by such State or local government.	N.1
2.f Remedial exercises will be required if the emergency plan is not satisfactorily tested during the biennial exercise, such that NRC, in consultation with FEMA, cannot (1) find reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency or (2) determine that the Emergency Response Organization (ERO) has maintained key skills specific to emergency response. The extent of state and local participation in remedial exercises must be sufficient to show that appropriate corrective measures have been taken regarding the elements of the plan not properly tested in the previous exercises.	N.1.a
2.g All exercises, drills, and training that provide performance opportunities to develop, maintain, or demonstrate key skills must provide for formal critiques in order to identify weak or deficient areas that need correction.	N.1
Any weaknesses or deficiencies that are identified in a critique of exercises, drills, or training must be corrected.	N.1.b
2.h The participation of state and local governments in an emergency exercise is not required to the extent that the applicant has identified those governments as refusing to participate further in emergency planning activities, pursuant to § 50.47(c)(1). In such cases, an exercise shall be held with the applicant or licensee and such governmental entities as elect to participate in the emergency planning process.	N.2.a
2.i Licensees shall use drill and exercise scenarios that provide reasonable assurance that anticipatory responses will not result from preconditioning of participants. Such scenarios for nuclear power reactor licensees must include a wide spectrum of radiological releases and events, including hostile action. Exercise and drill scenarios as appropriate must emphasize coordination among onsite and offsite response organizations.	N.3 N.4

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

Regulatory Criteria	E-Plan
2.j(i) The exercises conducted under paragraph 2 of this section by nuclear power reactor licensees must provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to implement the principal functional areas of emergency response identified in paragraph 2.b of this section.	N.1 N.2.a
j(ii) Each exercise must provide the opportunity for the ERO to demonstrate key skills specific to emergency response duties in the control room, TSC, OSC, EOF, and JIC.	N.1
j(iii) In each 8-calendar-year exercise cycle, nuclear power reactor licensees shall vary the content of scenarios during exercises conducted under paragraph 2 of this section to provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to respond to the following scenario elements:	N.3
(1) hostile action directed at the plant site,	N.3.a
(2) No radiological release or an unplanned minimal radiological release that does not require public protective actions;	N.3.c
(3) An initial classification of or rapid escalation to a Site Area Emergency or General Emergency;	N.3.b
(4) Implementation of strategies, procedures, and guidance developed under §50.155(b)(2); and	N.3.e
(5) Integration of offsite resources with onsite response.	N.3.d
j(iv) The licensee shall maintain a record of exercises conducted during each 8-year exercise cycle that documents the content of scenarios used to comply with the requirements of section IV.F.2.j of this appendix.	N.3
j(v) Each licensee shall conduct a hostile action exercise for each of its sites no later than December 31, 2015.	N/A
j(vi) The first 8-year exercise cycle for a site will begin in the calendar year in which the first hostile action exercise is conducted. For a site licensed under 10 CFR part 52, the first 8-year exercise cycle begins in the calendar year of the initial exercise required by section IV.F.2.a of this appendix.	N/A

10 CFR 50, Appendix E.IV.G – Maintaining Emergency Preparedness

Regulatory Criteria	E-Plan
Provisions to be employed to ensure that the emergency plan, its implementing procedures, and emergency equipment and supplies are maintained up to date shall be described.	P.4 P.9 P.10 P.11 P.12

Appendix 3 10 CFR 50 Appendix E.IV Cross-Reference

10 CFR 50, Appendix E Section IV.H – Recovery

Regulatory Criteria	E-Plan
Criteria to be used to determine when, following an accident, reentry of the facility would be appropriate or when operation could be resumed shall be described.	M.1

10 CFR 50, Appendix E.IV.I – Onsite Protective Actions During Hostile Action

Regulatory Criteria	E-Plan
By June 20, 2012, for nuclear power reactor licensees, a range of protective actions to protect onsite personnel during hostile action must be developed to ensure the continued ability of the licensee to safely shut down the reactor and perform the functions of the licensee's emergency plan.	J.1

NEXTera ENERGY	**NUCLEAR FLEET** **PROGRAM DESCRIPTION** NON-SAFETY RELATED **INFORMATION USE**	Program No. **EP-PBN-110** Revision No. **0**

Title:

PBN EMERGENCY PLAN ANNEX

Responsible Department: REGULATORY AFFAIRS

Special Considerations:

Revision	Approved By	Approval Date
0		

TYPE	
DATE	
DOCT	PROGRAM
DOCN	EP-PBN-110
SYS	
STATUS	DRAFT
REV	0
# OF PAGES	21

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INTRODUCTION

This Point Beach Nuclear (PBN) Emergency Plan Annex supplements the NextEra Common Emergency Plan by providing site specific information unique to the station. It is subject to the same change and audit requirements as the NextEra Common Emergency Plan.

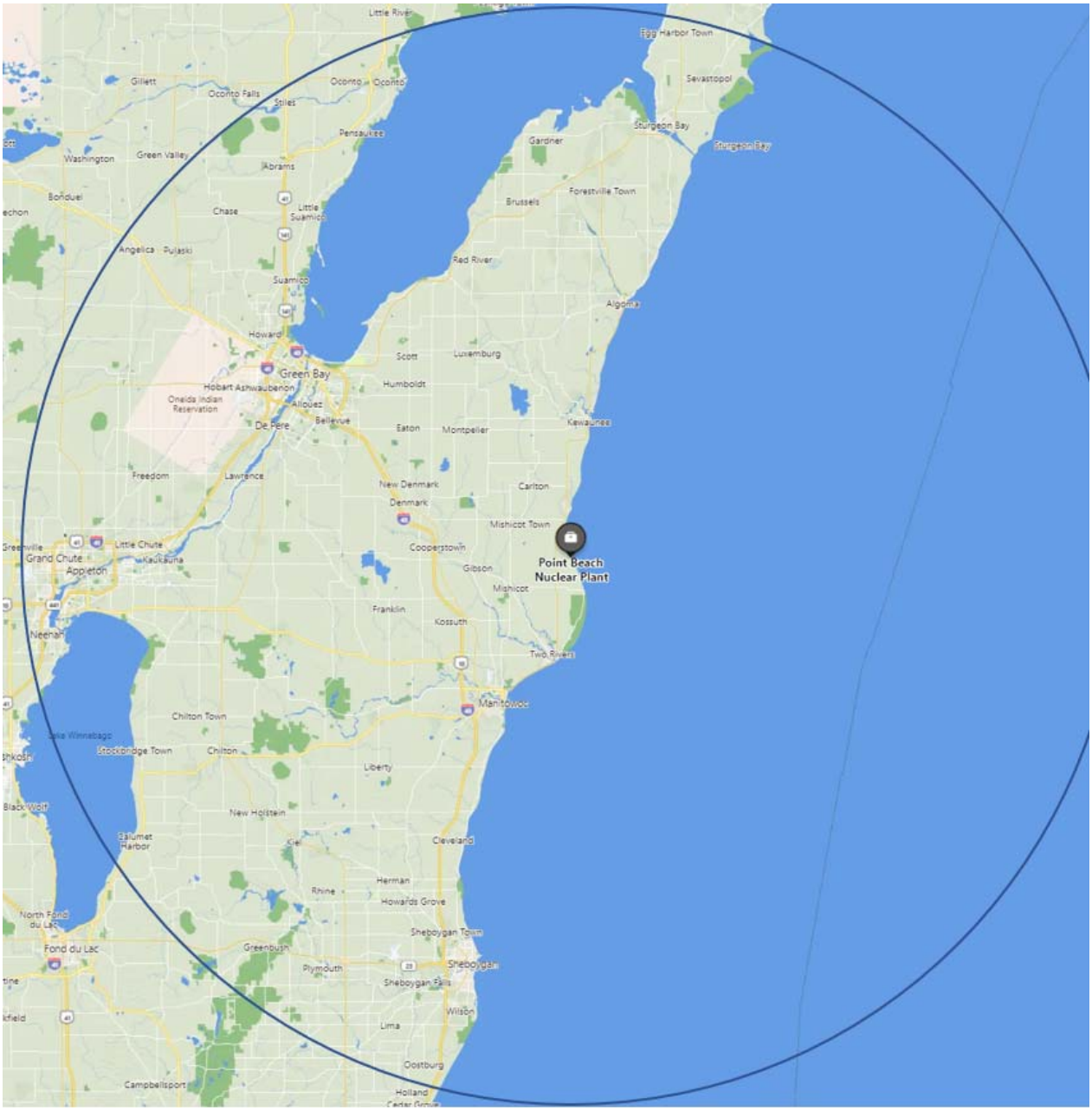
The PBN is a two unit pressurized water nuclear power plant located on a 1,260 acre site in the town of Two Creeks, Wisconsin. The plant is owned and operated by NextEra Energy Point Beach, LLC, an indirect, wholly owned subsidiary of NextEra Energy, Inc.

This document matches the structure of the NextEra Common Emergency Plan in following the format of NUREG-0654. It only contains the guidance elements that have site specific information therefore the numbering may not always be sequential.

Emergency Planning for the PBN station is performed within the following two Emergency Planning Zones (EPZ):

- Plume Exposure Pathway EPZ – The PBN Plume Exposure EPZ approximates a 10-mile radius around the plant site and is described and illustrated in the station's Evacuation Time Estimate Study report.

- Ingestion Pathway EPZ – The PBN Ingestion Pathway EPZ approximates a 50-mile radius around the plant site as illustrated below.



A: Assignment of Responsibility

Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organizations within the EPZs have been assigned, the emergency responsibilities of the various supporting organization have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

Regulatory References: 10 CFR 50.47(b)(1); 44 CFR 350.5(a)(1);
10 CFR Part 50, Appendix E.IV.A

A.1.a	The organizations having an operational role specify their concept of operations and relationship to the total effort.

3. Offsite Response Organization (OROs)

The principle state agencies having planning and implementation responsibilities for emergencies for PBN are:

a. Wisconsin Department of Military Affairs, WEM

The Administrator of WEM, Department of Military Affairs, has been designated by the Governor of the State of Wisconsin as the state officer to assume the primary responsibility and authority for radiological emergency response planning.

b. Wisconsin Department of Health Services, Radiation Protection Section

Is responsible for preventing exposure to ionizing radiation in amounts which are detrimental to health according to nationally accepted standards.

c. Wisconsin Department of Transportation, Division of State Patrol

Is responsible for directing vehicular and pedestrian movement out of and around the area of the incident, controlling access into the area and providing security at the site.

d. Wisconsin Department of Natural Resources, Division of Enforcement

Provides support to state and local law enforcement agencies and courier service if necessary.

e. Wisconsin Department of Transportation, Division of Highways

Is responsible, when so ordered by the Administrator of WEM, for implementing the Emergency Highway Traffic Regulation Plan when, as a result of a radiological incident a large area is cordoned off by the law enforcement services and vehicular traffic is directed to other roads.

f. Wisconsin Department of Agriculture, Trade and Consumer Protection

Selected department personnel receive training in ingestion sampling procedures. May ban the sale of foods which have harmful levels of radioactivity and advise on the use, sale, or disposal of animal feeds containing harmful levels of radioactive contamination.

The counties with emergency service departments and other agencies interrelated to these local governments within the 10-mile EPZ (plume exposure pathway) of PBN are:

- Manitowoc County
- Kewaunee County

Under the provisions of the Wisconsin Statutes 22.16 and the Manitowoc and Kewaunee County Emergency Government Ordinances, authorities of both counties have the responsibility and authority to coordinate offsite emergency activities in the event of a radiological incident. Each county has prepared a County Emergency Operations Plan to carry out this responsibility which is applicable to emergencies at PBN.

The Manitowoc and Kewaunee County Emergency Organization will provide or assist the emergency response activities by the following:

a. Provide notification to county and support agencies and local area residents that an incident has occurred at PBN, if necessary.

b. Provide liaison and communication capabilities with the plant facility and appropriate federal, state and local organizations.

c. Assist in providing release of accurate public information concerning the offsite consequences of the emergency through all available media. In addition, advise and instruct area residents on what protective actions should be taken.

d. Assist in providing for medical treatment, health and sanitation services, and mass care for members of the general public.

e. Assist in the evacuation of affected offsite locations, if such an action should be required.

Refer to County Emergency Operations Plans for details on county concept of operations.

The counties within the 50-mile EPZ (ingestion exposure pathway) of PBN are:

- Manitowoc County
- Brown County
- Door County
- Oconto County
- Sheboygan County
- Winnebago County
- Kewaunee County
- Calumet County
- Fond Du Lac County
- Outagamie County
- Shawano County

A.4	Written agreements with the support organizations having an emergency response role within the EPZs are included. The agreements describe the concept of operations, emergency measures to be provided, mutually acceptable criteria for their implementation, and arrangements for exchange of information.

Site specific letters of agreement (LOAs) or memorandums of understanding (MOUs), are maintained by PBN with the following organizations:

- Aurora Health Care – Manitowoc County (Physicians)
- Aurora Medical Center – Manitowoc County (Hospital)
- Bechtel Power Corporation
- Brandt Buses, Inc.
- City Of Two Rivers (Ambulance/Fire)
- City Of Two Rivers Fire Department (Building)
- Dominion Energy Kewaunee Inc. And NextEra Energy Point Beach, LLC (Mutual Assistance)
- Duane Arnold Energy Center (DAEC) (Laboratory Sampling Capabilities)
- Kewaunee County Emergency Management
- Kewaunee County Sheriff's Department
- Manitowoc County Highway Commission (Emergency Snow Removal)
- Manitowoc County Emergency Management
- Manitowoc County Sheriff's Department
- Mishicot Area Ambulance Service
- Two Creeks Volunteer Fire Department
- Town Of Two Creeks (Town Hall)
- University Of Wisconsin Hospital & Clinics
- Westinghouse Electric Company

B: Onsite Emergency Organization

On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.

Regulatory References: 10 CFR 50.47(b)(2); 44 CFR 350.5(a)(2);
10 CFR Part 50, Appendix E.IV.A

B.1.a	The site-specific emergency response organization (ERO) is developed. Note that while other site programs, such as operations, fire response, rescue and first aid, and security, may be controlled via other licensing documents, it is only when these personnel are assigned EP functions that they become part of this regulatory standard. Consideration is given to ensure that EP functions are not assigned to individuals who may have difficulties performing their EP function(s) simultaneously with their other assigned (non-EP) duties. Appendix E to 10 CFR Part 50 requires licensees to perform an on-shift staffing analysis to ensure on-shift staff can support the EP functions assigned, as well as other assigned duties.

The PBN on-shift staffing analysis report has been developed in accordance with 10 CFR 50 Appendix E.IV.A.9 and NEI 10-05.

Refer to EP-PBN-112, PBN On-Shift Staffing Analysis.

B.5	The external organizations, including contractors, that may be requested to provide technical assistance to and augmentation of the ERO, as applicable, are specified.

2. Other External Non-NextEra Support Organizations

   A. Westinghouse (the NSSS vendor for PBN): Upon request, Westinghouse will provide emergency technical assistance, including equipment and/or services, in support of PBN in the unlikely event of an emergency.

   B. Bechtel Power Corporation (the architect-engineer for PBN): Upon request, Bechtel will provide technical assistance to PBN.

C: Emergency Response Support and Resources

Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate state and local staff at the licensee's EOF have been made, and other organizations capable of augmenting the planned response have been identified.

Regulatory References: 10 CFR 50.47(b)(3); 44 CFR 350.5(a)(3); 10 CFR Part 50, Appendix E, Sec. IV.E

C.4	Radiological laboratories, their general capabilities, and expected availability to provide radiological monitoring analysis services that can be used in an emergency are described. Plans to augment the identified radiological laboratories are described.

The station's main chemistry laboratory and a back-up chemistry laboratory located in the TSC Building are equipped for chemical & radiological analyses.

The Wisconsin State Laboratory of Hygiene (WSLH) offers a wide range of radiological testing services. These services include testing environmental samples from nuclear power facilities.

D: Emergency Classification System

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Regulatory References: 10 CFR 50.47(b)(4); 44 CFR 350.5(a)(4);
10 CFR Part 50 Appendix E.IV.B and C

D.1	A standard emergency classification and action level scheme is established and maintained. The scheme provides detailed EALs for each of the four ECLs in Section IV.C.1 of Appendix E to 10 CFR Part 50.

The PBN Emergency Action Level (EAL) scheme is documented in EP-PBN-111, PBN EAL Technical Basis Manual.

E: Notification Methods and Procedures

Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

Regulatory References: 10 CFR 50.47(b)(5); 44 CFR 350.5(a)(5);
10 CFR Part 50 Appendix E.IV.A, C, D and E

E.1	The mutually agreeable process for direct and prompt notification of response organizations, aligned with the emergency classification and action level scheme, is described.

2. ORO Notification

The following state and county 24/7 warning points are notified of a declared emergency at PBN:

- State of Wisconsin
- Manitowoc County
- Kewaunee County

E.2	The alert and notification systems (ANSs) used to alert and notify the general public within the plume exposure pathway EPZ and methods of activation are described. This description includes the administrative and physical means, the time required for notifying and providing prompt instructions to the public within the plume exposure pathway EPZ, and the organizations or titles/positions responsible for activating the system.

Detailed information on the FEMA approved system used to alert and notify the general public is maintained in EP-PBN-115, PBN Alert and Notification System Design Report.

Manitowoc County is responsible for activation of IPAWS and ensuring the operability of the system.

F: Emergency Communications

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

Regulatory References: 10 CFR 50.47(b)(6); 44 CFR 350.5(a)(6);
10 CFR Part 50, Appendix E.IV.E

F.1	Each principal response organization establishes redundant means of communication and addresses the following provisions:

F.1.a	Continuous capability for notification to, and activation of, the emergency response network, including a minimum of two independent communication links.

An Internet Protocol Telephone (IPT) system is the primary system for about a thousand phones at Point Beach, including those in the Control Room, TSC and OSC. It also provides backup phones in the EOF and JIC. Redundant call manager servers use the local computer network to route calls. External phone calls are routed to the public telephone network over the wide area network to the corporate exchange in Florida or over a direct connection to the local exchange in Mishicot. These paths are redundant. Uninterruptable Power Supplies protect phone system and network components from short duration power interruptions.

A separate Internet Protocol Telephone (IPT) system provides telephone service to the EOF and JIC. It routes telephone calls through the Wide Area Network (WAN) connection and through two PRI communications lines to the local service provider.

Telephone lines to outside exchanges include Mishicot, Wisconsin exchange lines; there are Mishicot exchange lines in the TSC and in the Control Room. Also, the Control Room, TSC and EOF have Federal Telecommunications System (FTS) circuits used for the emergency notification system (ENS), the health physics network (HPN), and the counterpart links as defined by the NRC.

F.2	Systems for coordinated communication methods for applicable fixed and mobile medical support facilities are described.

PBN uses the 911 emergency dispatch system to call out medical support facilities. The 911 dispatcher communicates with fixed and mobile facilities as necessary to coordinate response.

H: Emergency Facilities and Equipment

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Regulatory References: 10 CFR 50.47(b)(8); 44 CFR 350.5(a)(8);
10 CFR Part 50, Appendix E.IV.E

H.1	A TSC is established, using current Federal guidance, from which NPP conditions are evaluated and mitigative actions are developed.

The Technical Support Center (TSC) located on Elevation 8’ of the Admin Building within 5 minutes walking distance of the Control Room.

The facility has the capability to supply and display technical information for use by technical and designated management personnel in support of reactor operations and Control Room functions during emergency and recovery operations. The TSC has its own emergency ventilation system.

If the TSC is unavailable, the Control Room is the designated backup TSC for radiological emergencies; otherwise, NSB Second floor or EOF may be used.

H.2	An OSC is established, using current Federal guidance, from which repair team activities are planned and teams are dispatched to implement actions.

The Operations Support Center (OSC) located on Elevation 8’ of the Admin Building near to Technical Support Center (TSC).

In the event the OSC must be evacuated, the NSB 2nd floor if the primary relocation area or if radiological conditions prevent its, responsibility for reentry teams will be provided from the Control Room.

H.3	An EOF is established, using current Federal guidance, as the primary base of emergency operations for the licensee during a radiological incident. The EOF facilitates the management and coordination of the overall emergency response, including the sharing of information with Federal, state, local, and tribal government authorities.

The Emergency Operations Facility (EOF) is located at 3060 Voyager Drive, Green Bay, WI., approximately 24 miles northwest of the plant.

The EOF provides working areas for Federal, State and local response personnel. Including conference areas with white boards, separate briefing/debriefing areas, telephones, ERO telephone contact lists, access to the internet, necessary office supplies and photocopier access, and access to plant radiological information.

H.4	An alternative facility (or facilities) is established, using currently provided and/or endorsed guidance, which would be accessible even if the NPP site is under threat of or experiencing hostile action.

The Two Rivers Fire Department (TRFD) is designated as an Alternative Facility which is to be used as a staging area. The TRFD is located at 2122 Monroe Street, Two Rivers, WI.

H.5	A JIC is established, and its location is identified, to coordinate communication from Federal, state, local, and tribal government authorities and licensee personnel with the public and media.

The Point Beach Near-Site JIC is located with the EOF at 3060 Voyager Drive, Green Bay, WI.

I: Accident Assessment

Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

Regulatory References: 10 CFR 50.47(b)(9); 44 CFR 350.5(a)(9);
10 CFR Part 50, Appendix E.IV. A, B and E

I.4.a	The contingency arrangements to obtain and analyze highly radioactive samples from the reactor coolant system, containment atmosphere and sump, and spent fuel pool storage area are described.

Changes have been made to reflect the NRC approved License Amendment Request received from the NRC via letter dated 09/12/22. The NRC issued Amendment Nos. 270 and 272 (Facility Operating Licenses DPR-24 and DPR-27). The amendments delete TS Section 5.5.3, "Post Accident Sampling System (PASS)," and thereby eliminate the requirements to have and Maintain the Post-Accident Sampling System at PBN.

Chemistry procedures describe post-accident contingency plans for obtaining Reactor Coolant, and Residual Heat Removal, Containment Sump, and Fuel Pool samples. Procedures are in place to assess core damage under accident conditions.

J: Protective Response

A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Regulatory References: 10 CFR 50.47(b)(10); 44 CFR 350.5(a)(10);
10 CFR Part 50, Appendix E.IV.E and I

J.2	Provisions are made and coordinated with appropriate offsite entities for evacuation routes and transportation for onsite individuals to a suitable offsite location. Selection of location considers the potential for inclement weather, high traffic density, and potential radiological conditions. Alternate location(s) and route(s) are identified.

The South access road (Nuclear Road) and the North access road (E Tapawingo Road) may be used to depart from the site, and evacuation from the 10-mile EPZ will be by way of evacuation routes identified in the ETE. (See Figure J.2-1, PBN Site Evacuation Routes.)

Evacuated personnel may be required to assemble at the Two Creeks Town Hall or Two Rivers Fire Department depending on environmental conditions.

J.6	The basis and methodology are established for the development of PARs for the responsible OROs, including evacuation, sheltering, and, if appropriate, radioprotective drug use, for the plume exposure pathway EPZ. Current Federal guidance is used.

The PBN site specific PAR basis is documented in EP-PBN-114, PBN Protective Action Recommendation (PAR) Technical Basis Manual.

J.8	The latest ETEs are:

J.8.a	Incorporated either by reference or in their entirety into the emergency plan.

The PBN site specific ETE report is documented in EP-PBN-113, PBN Evacuation Time Estimate Study.

Figure J.2-1: PBN Site Evacuation Routes

K: Radiological Exposure Control

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

Regulatory References: 10 CFR 50.47(b)(11), 10 CFR Part 50, Appendix E.IV.E

K.1	The radiation protection controls for emergency workers to be implemented during emergencies are described. These controls address the following aspects:

K.1.e	The capability to decontaminate emergency workers, equipment, and vehicles.

Facilities and supplies for decontaminating personnel are available at the RP station and OSC.

L: Medical and Public Health Support

Arrangements are made for medical services for contaminated injured individuals.

Regulatory Reference: 10 CFR 50.47(b)(12); 10 CFR Part 50, Appendix E.IV.E

L.2	Arrangements for the medical treatment of contaminated injured onsite personnel and those onsite personnel who have received significant radiation exposures and/or significant uptakes of radioactive material are described. These arrangements include the following components:

L.2.b	Primary and backup offsite medical facilities.

The primary and backup offsite medical facilities to treat contaminated, injured personnel from PBN are:

Primary – The Aurora Medical Center – Manitowoc County will provide medical assistance to PBN personnel. The Aurora Medical Center maintains a facility equipped to provide first aid, emergency medical stabilization treatment, and decontamination for ill or injured personnel from plant. It is available 24 hours a day, and is equipped with a sink, decontamination supplies, protective clothing, signs, and other necessary equipment.

Backup – University Hospital and Clinics in Madison, Wisconsin, may be utilized if the treatment required extend beyond the capabilities of the Aurora Medical Center. The University Hospital provides instruction and training on handling radiological accident patients.

L.4	Each organization arranges for the transportation of contaminated, injured individuals and the means to control contamination while transporting victims of radiological incidents to medical support facilities and the decontamination of transport vehicle following use.

Mishicot Ambulance Service is the primary provider for the transportation of contaminated, injured individuals. The City of Two Rivers may provide backup ambulance service to transport injured persons from PBN. Each service has the means to control contamination while transporting victims.

N: Exercises and Drills

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

Regulatory References: 10 CFR 50.47(b)(14); 44 CFR 350.5(a)(14);
10 CFR Part 50, Appendix E.IV.F

N.4.g	**Post-Accident Sampling Drills** Post-accident sampling drills are conducted annually. These drills address capabilities including analysis of liquid and containment atmosphere samples with simulated elevated radiation levels. This criterion is not applicable if the NPP unit(s) does (do) not have licensing basis requirements for post-accident sampling.

Not applicable: PBN has received NRC approval for the elimination of post-accident sample system (PASS) requirements from technical specifications. In accordance with their site specific NRC safety evaluation, contingency plans have been developed for obtaining and analyzing highly radioactive samples; however, these contingency plans do not have to be carried out in emergency plan drills or exercises.

Refer to site annex element I.4.a for reference to the PASS elimination safety evaluation.

P: Responsibility for the Planning Effort

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

Regulatory References: 10 CFR 50.47(b)(16); 10 CFR Part 50, Appendix E.IV.B and G

P.6	A listing of annexes, appendices, and supporting plans and their originating agency is included in the emergency plan.

The primary external emergency plans specific to the support of PBN include the following:

- Wisconsin Emergency Response Plan
- Manitowoc County Emergency Operations Plan
- Kewaunee County Emergency Operations Plan

P.7	An appendix containing a listing by title of the procedures required to maintain and implement the emergency plan is included. The listing includes the section(s) of the emergency plan to be implemented by each procedure.

Table P.7-1 provides a listing of the PBN site-specific procedures required to maintain and implement the emergency plan, and the section(s) of the emergency plan implemented by each procedure.

Table P.7-1: PBN Emergency Plan Response and Administrative Procedures

Document ID	Document Title	Plan Sections Implemented
	[To be developed following E-Plan Approval]	

NEXTera ENERGY	**NUCLEAR FLEET** **PROGRAM DESCRIPTION** NON-SAFETY RELATED **INFORMATION USE**	Program No. **EP-PSL-120** Revision No. **0**

Title:

PSL EMERGENCY PLAN ANNEX

Responsible Department: REGULATORY AFFAIRS

Special Considerations:

Revision	Approved By	Approval Date
0		

TYPE	
DATE	
DOCT	PROGRAM
DOCN	EP-PSL-120
SYS	
STATUS	DRAFT
REV	0
# OF PAGES	22

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INTRODUCTION

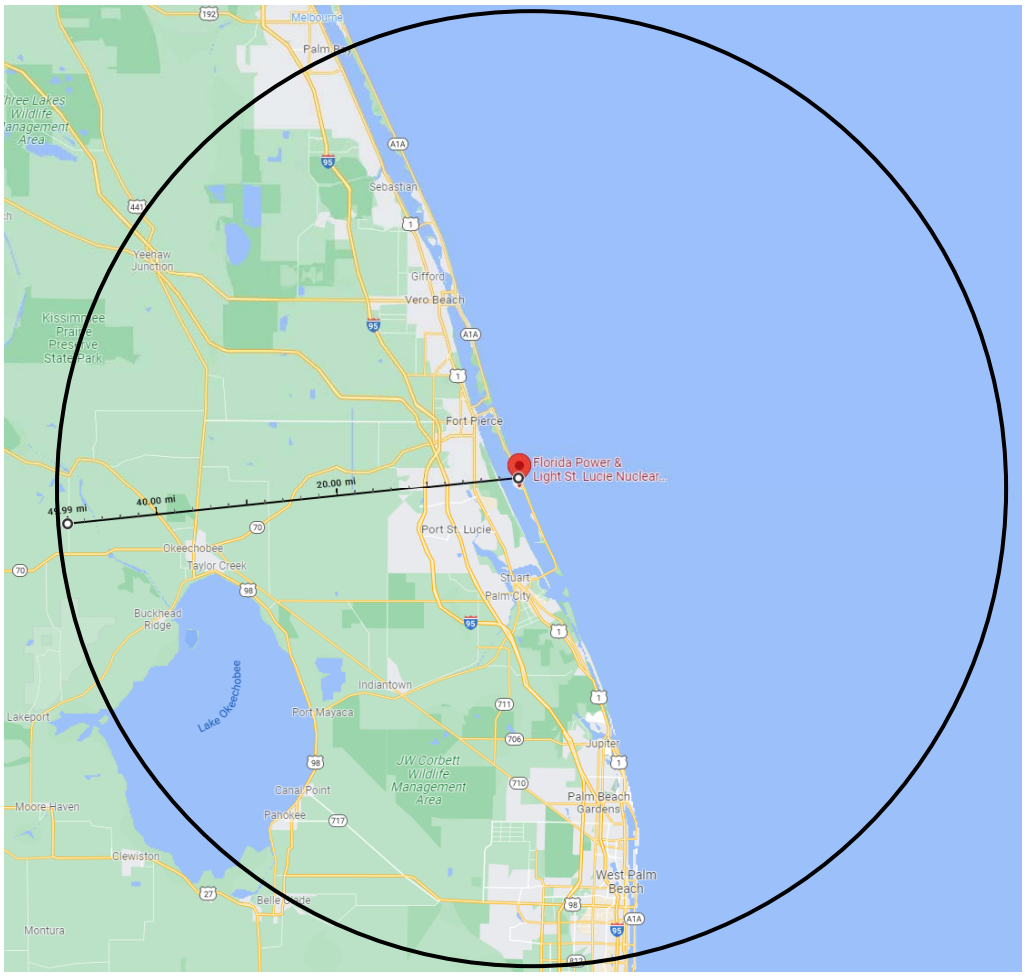
This St. Lucie Plant (PSL) Emergency Plan Annex supplements the NextEra Common Emergency Plan by providing site specific information unique to the station for coping with radiological emergencies at PSL, a facility with two commercial power reactors, Units 1 and 2 located in St. Lucie County, Florida. It is subject to the same change and audit requirements as the NextEra Common Emergency Plan.

This document matches the structure of the NextEra Common Emergency Plan in following the format of NUREG-0654. It only contains the guidance elements that have site specific information therefore the numbering may not always be sequential.

Emergency Planning for the PSL station is performed within the following two Emergency Planning Zones (EPZ):

- Plume Exposure Pathway EPZ – The PSL Plume Exposure EPZ approximates a 10-mile radius around the plant site and is described and illustrated in the station's Evacuation Time Estimate Study report.

- Ingestion Pathway EPZ – The PSL Ingestion Pathway EPZ approximates a 50-mile radius around the plant site as illustrated below.



A: Assignment of Responsibility

Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organizations within the EPZs have been assigned, the emergency responsibilities of the various supporting organization have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

Regulatory References: 10 CFR 50.47(b)(1); 44 CFR 350.5(a)(1);
10 CFR Part 50, Appendix E.IV.A

A.1.a	The organizations having an operational role specify their concept of operations and relationship to the total effort.

3. Offsite Response Organizations (ORO)

A) State Response Organizations

The principle state agencies having planning and implementation responsibilities for emergencies for PSL are:

State of Florida Division of Emergency Management

The Division of Emergency Management (DEM) is the state agency authorized to receive initial notification from Florida Power & Light Company (FPL). The State Watch Office (SWO) is responsible for alerting the state and county emergency response agencies to all notifications from FPL. Specific discussion on transportation of state emergency response personnel to the vicinity of the plant is discussed in Chapter 8 of the State Plan. This emergency response is conducted in accordance with the State Plan prepared by the DEM, in coordination with other State and County emergency response agencies.

The DEM's defined responsibilities include:

1) Overall responsibility for coordinating the development and implementation of state and county emergency responseplans.

2) Command and control of State emergency response resources.

3) Notification of state and county response agencies.

4) Coordination among state, federal (i.e., FEMA, EPA, DOE), and local agencies.

State of Florida Department of Health

The Department of Health is the state agency authorized to provide the DEM with technical support and expertise in public health matters.

Department of Health defined responsibilities include:

1) Emergency medical services, public health, and sanitation.

2) Economic and social services (through the FH Bureau of Radiation Control (BRC)).

3) Radiological monitoring, off-site.

4) Off-site radiological exposure control and protective response recommendations for plume and ingestion pathway counties.

Department of Highway Safety and Motor Vehicles, Division of Florida Highway Patrol

The Florida Highway Patrol, through the coordination of the Department of Law Enforcement, provides the following services.

1) Traffic control

2) Communications (support)

3) Law enforcement coordination

4) Upon request, assist in the transportation of samples for analysis when immediate analysis is necessary

5) Within their authority, evaluate and exclude individuals from designated public areas.

These services will be provided in accordance with the State Plan (Chapter 2).

B) County Response Organizations

The county and municipal governments (within the counties) with emergency service departments and other agencies interrelated to these local governments within the 10-mile EPZ (plume exposure pathway) of PSL are:

- St. Lucie County
- Martin County

The county and municipal governments (within the counties) with emergency service departments and other agencies interrelated to these local governments within the 50-mile EPZ (ingestion exposure pathway) of PSL are:

- Indian River County
- Brevard County
- Palm Beach County
- Osceola County
- Okeechobee County
- Highlands County
- Glades County

The responsibility for hosting evacuees rests on Palm Beach, Indian River, and Brevard Counties.

Boards of County Commissioners will take proper and responsible action to protect life, health, safety, property, and the environment from the consequences of nuclear power accidents. During radiological emergencies, resources and personnel of St. Lucie, Martin, Indian River, Palm Beach, and Brevard Counties will be reserved and available for use by County Commissioners. Decision to implement protective action recommendations will be made jointly by the Chairpersons, Boards of County Commissioners (of the affected counties), and the Governor or State Director, Division of Emergency Management. All County personnel and resources will be under the control of the County Commissioners. Federal and State resources will also be available to the Counties.

A.4	Written agreements with the support organizations having an emergency response role within the EPZs are included. The agreements describe the concept of operations, emergency measures to be provided, mutually acceptable criteria for their implementation, and arrangements for exchange of information.

Site specific letters of agreement (LOAs) or memorandums of understanding (MOUs), are maintained by PSL with the following organizations:

- Westinghouse Electric (ABB/CE)
- AECOM
- Institute of Nuclear Power Operations (INPO)
- U.S. Coast Guard
- Florida Highway Patrol
- St. Lucie County Sheriff's Department
- St. Lucie County Fire District
- City of Ft. Pierce - Police Department
- City of Ft. Pierce - City Manager
- Martin County Sheriff's Department
- AREVA NP Inc. (Framatome Technologies)
- U.S. Department of Energy (Savannah River Operations)
- U.S. Department of Energy (REAC/TS)
- Lawnwood Regional Medical Center
- Cleveland Clinic Martin Health
- Bechtel Power Corporation
- Martin County Fire Rescue
- Martin County Department of Emergency Services

B: Onsite Emergency Organization

On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.

Regulatory References: 10 CFR 50.47(b)(2); 44 CFR 350.5(a)(2);
10 CFR Part 50, Appendix E.IV.A

B.1.a	The site-specific emergency response organization (ERO) is developed. Note that while other site programs, such as operations, fire response, rescue and first aid, and security, may be controlled via other licensing documents, it is only when these personnel are assigned EP functions that they become part of this regulatory standard. Consideration is given to ensure that EP functions are not assigned to individuals who may have difficulties performing their EP function(s) simultaneously with their other assigned (non-EP) duties. Appendix E to 10 CFR Part 50 requires licensees to perform an on-shift staffing analysis to ensure on-shift staff can support the EP functions assigned, as well as other assigned duties.

The PSL on-shift staffing analysis report has been developed in accordance with 10 CFR 50 Appendix E.IV.A.9 and NEI 10-05.

Refer to EP-PSL-122, PSL On-Shift Staffing Analysis.

B.5	The external organizations, including contractors, that may be requested to provide technical assistance to and augmentation of the ERO, as applicable, are specified.

2. Other External Non-NextEra Support Organizations

   A. Westinghouse: ABB/Combustion Engineering (CE), now Westinghouse Electric, is the Nuclear Steam Supply System vendor for PSL. Upon request, Westinghouse Electric can supply emergency technical services and resources as provided by the Purchase Order listed in Appendix E.

   B. AECOM (previously URS and Washington Group): AECOM is the Architect/Engineer for PSL. Upon request, AECOM can supply emergency services.

C: Emergency Response Support and Resources

Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate state and local staff at the licensee's EOF have been made, and other organizations capable of augmenting the planned response have been identified.

Regulatory References: 10 CFR 50.47(b)(3); 44 CFR 350.5(a)(3);
10 CFR Part 50, Appendix E, Sec. IV.E

C.4	Radiological laboratories, their general capabilities, and expected availability to provide radiological monitoring analysis services that can be used in an emergency are described. Plans to augment the identified radiological laboratories are described.

Florida Power & Light Company has primary and backup radiological laboratory facilities on-site. A hot lab backup will be provided by portable equipment described in procedures. Environmental sampling will be augmented by the State's Radiological monitoring team and the Mobile Emergency Radiological Laboratory (MERL) within approximately three hours of activation. A Florida DOH-BRC representative dispatched to the EOF will coordinate all State off-site field monitoring data and sample media. If required, the laboratory facilities at FPL's Turkey Point Plant can be used; appropriate arrangements will be made on an as-needed basis.

D: Emergency Classification System

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Regulatory References: 10 CFR 50.47(b)(4); 44 CFR 350.5(a)(4);
10 CFR Part 50 Appendix E.IV.B and C

D.1	A standard emergency classification and action level scheme is established and maintained. The scheme provides detailed EALs for each of the four ECLs in Section IV.C.1 of Appendix E to 10 CFR Part 50.

The PSL EAL scheme is documented in EP-PSL-121, PSL Emergency Action Level Technical Basis Manual.

E: Notification Methods and Procedures

Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

Regulatory References: 10 CFR 50.47(b)(5); 44 CFR 350.5(a)(5);
10 CFR Part 50 Appendix E.IV.A, C, D and E

E.1	The mutually agreeable process for direct and prompt notification of response organizations, aligned with the emergency classification and action level scheme, is described.

2. State and Local Event Notification

The site-specific state and county entities (24/7 warning points) notified of a declared emergency at PSL are as follows:

- State of Florida (State Watch Office)
- St. Lucie County
- Martin County
- Department of Health Bureau of Radiation Control (via SWO)

E.2	The alert and notification systems (ANSs) used to alert and notify the general public within the plume exposure pathway EPZ and methods of activation are described. This description includes the administrative and physical means, the time required for notifying and providing prompt instructions to the public within the plume exposure pathway EPZ, and the organizations or titles/positions responsible for activating the system.

PSL ANS used to alert and notify the general public within the plume exposure pathway EPZ is described as follows.

1. General Description

The ANS (activated by the OROs) is the primary general public notification system. The ANS is designed to provide an alerting signal throughout the population on an area wide basis throughout the 10-mile EPZ. The OROs, after the alert signal, provide an informational or instructional message to the population via various methods as approved by FEMA.

Alerting, warning, and notification of the public are actions taken by government agencies to provide prompt instructions to the public.

Should the primary alerting or notification signal fail, ORO plans maintain the FEMA approved back-up alert process.

2. Concept of Activation and Operation

ANS is available and operational in the 10-mile EPZ. The ANS provides an alerting signal to essentially 100% of the population on an area-wide basis throughout the 10-mile EPZ within 15 minutes from the time the cognizant OROs have determined the need for such alerting exists. System testing is used to satisfy FEMA requirements ensuring adequate coverage of the population within the 10-mile EPZ. The emergency plans of each state include evidence of EAS preparation for emergency situations and the means for activating the system. ANS performance is verified via automated reports generated after activation or testing.

Activating the ANS requires procedures and notifications between the site and the OROs. Activation of the ANS for prompt (within about 15 minutes) alerting and notification of the public within the plume exposure pathway EPZ is the responsibility of the OROs. NextEra is responsible for ensuring the operability of the ANS.

To ensure ANS is maintained, the system is tested on a periodic basis as described in Element F.3 that meets or exceeds FEMA guidance. PSL personnel are notified of failed tests and initiate corrective actions to return ANS equipment to full operational readiness in a timely manner to meet FEMA operability requirements as referenced in the FEMA Radiological Emergency Preparedness Program Manual.

Detailed information on the FEMA approved system used to alert and notify the general public is maintained in EP-PSL-125, PSL Alert and Notification System Design Report.

F: Emergency Communications

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

Regulatory References: 10 CFR 50.47(b)(6); 44 CFR 350.5(a)(6);
10 CFR Part 50, Appendix E.IV.E

F.1	Each principal response organization establishes redundant means of communication and addresses the following provisions:

F.1.a	Continuous capability for notification to, and activation of, the emergency response network, including a minimum of two independent communication links.

Each Control Room contains the necessary communications equipment for notifying on-site personnel and off-site authorities in the event of an accident. This includes the Hot Ring Down (HRD) telephone to the State Watch Office (SWO), EMnet (Satellite Communications System), Emergency Notification System (ENS) to the NRC Operations Center (in Maryland), commercial telephones, Florida Power & Light Company radio system, public address system, portable radio sets (walkie-talkies), and a radio paging system. These systems are used as defined by procedure to accomplish the necessary notifications and communications.

The Technical Support Center has an emergency communications network similar to the Control Rooms. The TSC also has the NRC Emergency Telecommunications System (ETS).

The OSC is maintained in the Outage Control Center on the second floor of the South Service Building. Telephone communications are maintained between the OSC and the Technical Support Center.

The Emergency Operations Facility has an emergency communications network including but not limited to, commercial (Bell) telephone lines, Hot Ring Down (HRD) phone, NRC ENS, NRC HPN, NRC counterpart links, EMnet (Satellite Communications System), and various Florida Power & Light Co. maintained radio systems.

F.2	Systems for coordinated communication methods for applicable fixed and mobile medical support facilities are described.

When injured personnel are transported to an off-site medical facility by county ambulance, radio contact, as well as telemetry, is normally maintained between the facility and the ambulance. In accordance with procedures, telephone notification is made by the Plant to the medical facility concerning the pending arrival of an injured person(s).

H: Emergency Facilities and Equipment

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Regulatory References: 10 CFR 50.47(b)(8); 44 CFR 350.5(a)(8);
10 CFR Part 50, Appendix E.IV.E

H.1	A TSC is established, using current Federal guidance, from which NPP conditions are evaluated and mitigative actions are developed.

The company maintains an on-site Technical Support Center to provide the Control Room with in-depth diagnostic and engineering assistance without adding to congestion within the Control Room. The TSC interfaces with the EOF regarding those diagnostic and engineering decisions. This assistance can help determine the operational decisions that would be appropriate to best control and mitigate the consequences of the emergency.

The TSC is on the 62-foot elevation of the Unit 1 Reactor Auxiliary Building (RAB). The TSC is located adjacent to the Unit 1 Control Room and is enclosed in the same habitability envelope. The TSC has emergency communications equipment, pre-calculated emergency data, pertinent reports, plans, procedures and drawings available for use.

Should the Unit 1 Control Room envelope require evacuation, alternate locations for the TSC have been identified as follows:

- South Service Building
- Nuclear Training Center

H.2	An OSC is established, using current Federal guidance, from which repair team activities are planned and teams are dispatched to implement actions.

The OSC is maintained in the Outage Control Center on the second floor of the South Service Building.

In the event that the OSC becomes uninhabitable, the Emergency Coordinator will designate an alternate location in accordance with procedures.

H.3	An EOF is established, using current Federal guidance, as the primary base of emergency operations for the licensee during a radiological incident. The EOF facilitates the management and coordination of the overall emergency response, including the sharing of information with Federal, state, local, and tribal government authorities.

The Emergency Operations Facility is located at the intersection of State Route 712 (Midway Road) and I-95 approximately 10 ½ miles west of PSL. The EOF has sufficient space to accommodate the Florida Power & Light Company response organization and designated representatives of the federal, state, and local authorities. Alternate temporary locations for the Emergency Operations Facility may be designated by the Recovery Manager if a natural disaster or other (non-radiological) external event significantly affects the operational capability of the facility.

H.4	An alternative facility (or facilities) is established, using currently provided and/or endorsed guidance, which would be accessible even if the NPP site is under threat of or experiencing hostile action.

The EOF serves as an alternative facility for the Technical Support Center and the Operations Support Center in a hostile action event at the station.

H.5	A JIC is established, and its location is identified, to coordinate communication from Federal, state, local, and tribal government authorities and licensee personnel with the public and media.

A Joint Information Center (JIC) is provided to allow the news media access to information from the Emergency Operations Facility. The JIC is co-located with the EOF (Midway Road/I-95 intersection).

When activated during and event, the near-site JIC is staffed by site personnel. The near site JIC is designed to facilitate representatives from county, state and federal agencies, as well as members of the media.

I: Accident Assessment

Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

Regulatory References: 10 CFR 50.47(b)(9); 44 CFR 350.5(a)(9);
10 CFR Part 50, Appendix E.IV.A, B, and E

I.4.a	The contingency arrangements to obtain and analyze highly radioactive samples from the reactor coolant system, containment atmosphere and sump, and spent fuel pool storage area are described.

Changes have been made to reflect the NRC approved License Amendment Request received from the NRC. The NRC issued Plant License Amendment L-2000-131, Relief from Technical Specification and NUREG - 0737 Requirements for Post-Accident Sampling System. Approved amendments: Unit 1 #174, Unit 2 #114 and thereby eliminated the requirements to have and maintain the Post-Accident Sampling System at PSL.

A chemistry procedure describes post-accident contingency plans for obtaining high activity samples. Procedures are in place to assess core damage under accident conditions.

J: Protective Response

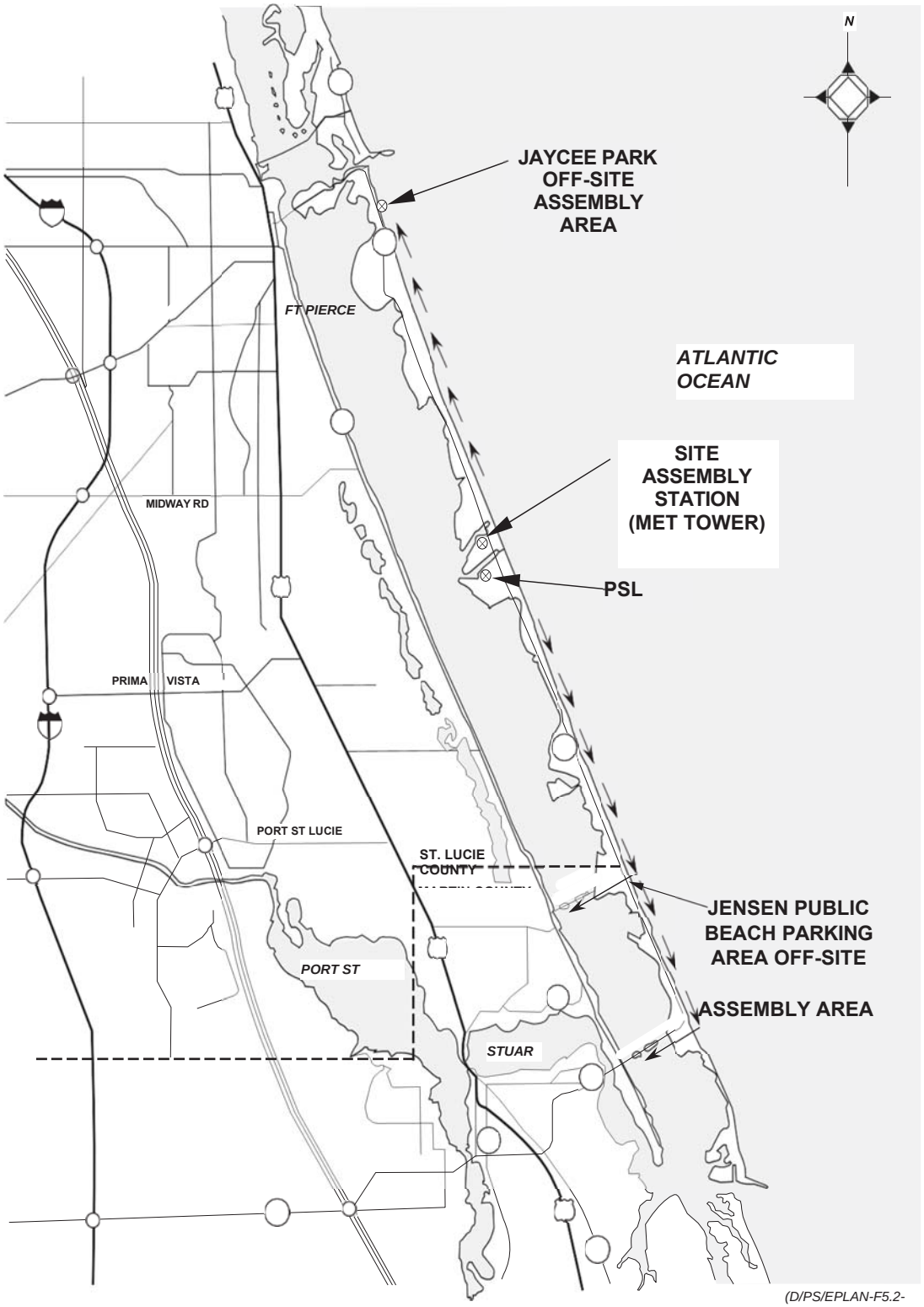
A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Regulatory References: 10 CFR 50.47(b)(10); 44 CFR 350.5(a)(10);
10 CFR Part 50, Appendix E.IV.E and I

J.2	Provisions are made and coordinated with appropriate offsite entities for evacuation routes and transportation for onsite individuals to a suitable offsite location. Selection of location considers the potential for inclement weather, high traffic density, and potential radiological conditions. Alternate location(s) and route(s) are identified.

When an evacuation is ordered, all non-essential personnel shall exit the PA via their normal gate unless otherwise directed by the EC. Non-essential personnel shall travel from the plant site following the designated evacuation route. Figure J.2-1 shows the evacuation route(s) for personnel. It is expected that the primary evacuation route will not be affected by adverse weather or traffic conditions. If a release is in progress and the potential exists for contamination of evacuees, they will be directed to an off-site assembly area. The primary assembly area for evacuated personnel is the Jaycee Public Park on Highway A1A, located approximately 7 ½ miles north of the plant on the road to Ft. Pierce. The alternate assembly area, south of the plant, is Jensen Public Beach Parking Area. All personnel will be requested to remain at the assembly area until instructed otherwise.

Figure J.2-1: PSL Site Evacuation Routes



J.6	The basis and methodology are established for the development of PARs for the responsible OROs, including evacuation, sheltering, and, if appropriate, radioprotective drug use, for the plume exposure pathway EPZ. Current Federal guidance is used.

The PSL site specific basis adaptation of NUREG-0654 Supplement 3 PARs is documented in in EP-PSL-124, PSL Protective Action Recommendation Technical Basis Manual.

J.8	The latest ETEs are:

J.8.a	Incorporated either by reference or in their entirety into the emergency plan.

The PSL site specific ETE report is documented in EP-PSL-123, PSL Evacuation Time Estimate Study.

K: Radiological Exposure Control

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

Regulatory References: 10 CFR 50.47(b)(11), 10 CFR Part 50, Appendix E.IV.E

K.1	The radiation protection controls for emergency workers to be implemented during emergencies are described. These controls address the following aspects:

K.1.e	The capability to decontaminate emergency workers, equipment, and vehicles.

Personnel decontamination facilities are available in three locations. Their use will be governed by the nature of the incident.

1. Site Hot Locker Rooms – Showers and sinks available for the decontamination of personnel with no (or minor) injuries. One is located in the Auxiliary Building for each unit.

2. Site Decontamination Facility – The Site Assembly Station personnel decontamination capabilities consist of utilizing various types of decontamination agents, such as waterless cleaners and decontamination foams. A quantity of cloth material is available for use with these decontamination agents. Contamination monitoring is performed through the use of count rate instruments with beta sensitive probes. Extra clothing for personnel whose personal clothing has been contaminated is available in the form of disposable garments. Decontamination of vehicles will be handled following the accident. Methods for decontamination and monitoring are described in plant procedures.

3. Offsite Medical Centers – Lawnwood Regional Medical Center and Cleveland Clinic Martin Health are available for medical treatment and decontamination of contaminated injured individuals.
   - Lawnwood Regional Medical Center is located approximately 8 miles Northwest of PSL in Ft. Pierce, FL.
   - Cleveland Clinic Martin Health is located approximately 10 1/4 miles South of PSL in Stuart, FL.

L: Medical and Public Health Support

Arrangements are made for medical services for contaminated injured individuals.

Regulatory Reference: 10 CFR 50.47(b)(12); 10 CFR Part 50, Appendix E.IV.E

L.2	Arrangements for the medical treatment of contaminated injured onsite personnel and those onsite personnel who have received significant radiation exposures and/or significant uptakes of radioactive material are described. These arrangements include the following components:

L.2.b	Primary and backup offsite medical facilities.

The two offsite medical facilities to treat contaminated, injured personnel from PSL are:

1. Lawnwood Regional Medical Center in Ft. Pierce, Fl. The Lawnwood Regional maintains a facility equipped to provide first aid, emergency medical stabilization treatment, and decontamination for ill or injured personnel from plant. It is available 24 hours a day, and is equipped with a sink, decontamination supplies, protective clothing, signs, and other necessary equipment.

2. Cleveland Clinic Martin Health in Stuart, Fl. may be utilized if the treatment required extend beyond the capabilities of the Lawnwood Regional Medical Center.

L.4	Each organization arranges for the transportation of contaminated, injured individuals and the means to control contamination while transporting victims of radiological incidents to medical support facilities and the decontamination of transport vehicle following use.

St. Lucie County Fire District Rescue service, company, or private vehicle will provide transportation of personnel with injuries whether or not the injury is associated with radiation or contamination. The fire district rescue service is preferred, but in the case of injuries which require urgent transportation or external exposure without contamination, other transportation may be used.

N: Exercises and Drills

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

Regulatory References: 10 CFR 50.47(b)(14); 44 CFR 350.5(a)(14);
10 CFR Part 50, Appendix E.IV.F

N.4.g	**Post-Accident Sampling Drills** Post-accident sampling drills are conducted annually. These drills address capabilities including analysis of liquid and containment atmosphere samples with simulated elevated radiation levels. This criterion is not applicable if the NPP unit(s) does (do) not have licensing basis requirements for post-accident sampling.

Not applicable. PSL has received NRC approval for the elimination of post-accident sample system (PASS) requirements from technical specifications. In accordance with their site specific NRC safety evaluation, contingency plans have been developed for obtaining and analyzing highly radioactive samples; however, these contingency plans do not have to be carried out in emergency plan drills or exercises.

Refer to element I.4.a for reference to the PASS elimination safety evaluation.

P: Responsibility for the Planning Effort

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

Regulatory References: 10 CFR 50.47(b)(16); 10 CFR Part 50, Appendix E.IV.D and G

P.6	A listing of annexes, appendices, and supporting plans and their originating agency is included in the emergency plan.

External emergency plans specific to the support of PSL include the following:

- Florida Emergency Response Plan
- St. Lucie County Emergency Operations Plan
- Martin County Radiological Emergency Preparedness Plan

P.7	An appendix containing a listing by title of the procedures required to maintain and implement the emergency plan is included. The listing includes the section(s) of the emergency plan to be implemented by each procedure.

Table P.7-1 provides a listing of the PSL site-specific procedures required to maintain and implement the emergency plan, and the section(s) of the emergency plan implemented by each procedure.

Table P.7-1: PSL Emergency Plan Response and Administrative Procedures

Document ID	Document Title	Plan Sections Implemented[1]
	[To be developed following E-Plan approval]	

NEXTera ENERGY	**NUCLEAR FLEET** **PROGRAM DESCRIPTION** NON-SAFETY RELATED **INFORMATION USE**	Program No. **EP-PTN-130** Revision No. **0**

Title:

PTN EMERGENCY PLAN ANNEX

Responsible Department: REGULATORY AFFAIRS

Special Considerations:

Revision	Approved By	Approval Date
0		

TYPE	
DATE	
DOCT	PROGRAM
DOCN	EP-PTN-130
SYS	
STATUS	DRAFT
REV	0
# OF PAGES	28

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INTRODUCTION

This Turkey Point Nuclear Plant (PTN) Emergency Plan Annex supplements the NextEra Common Emergency Plan by providing site specific information unique to the station. It is subject to the same change and audit requirements as the NextEra Common Emergency Plan.

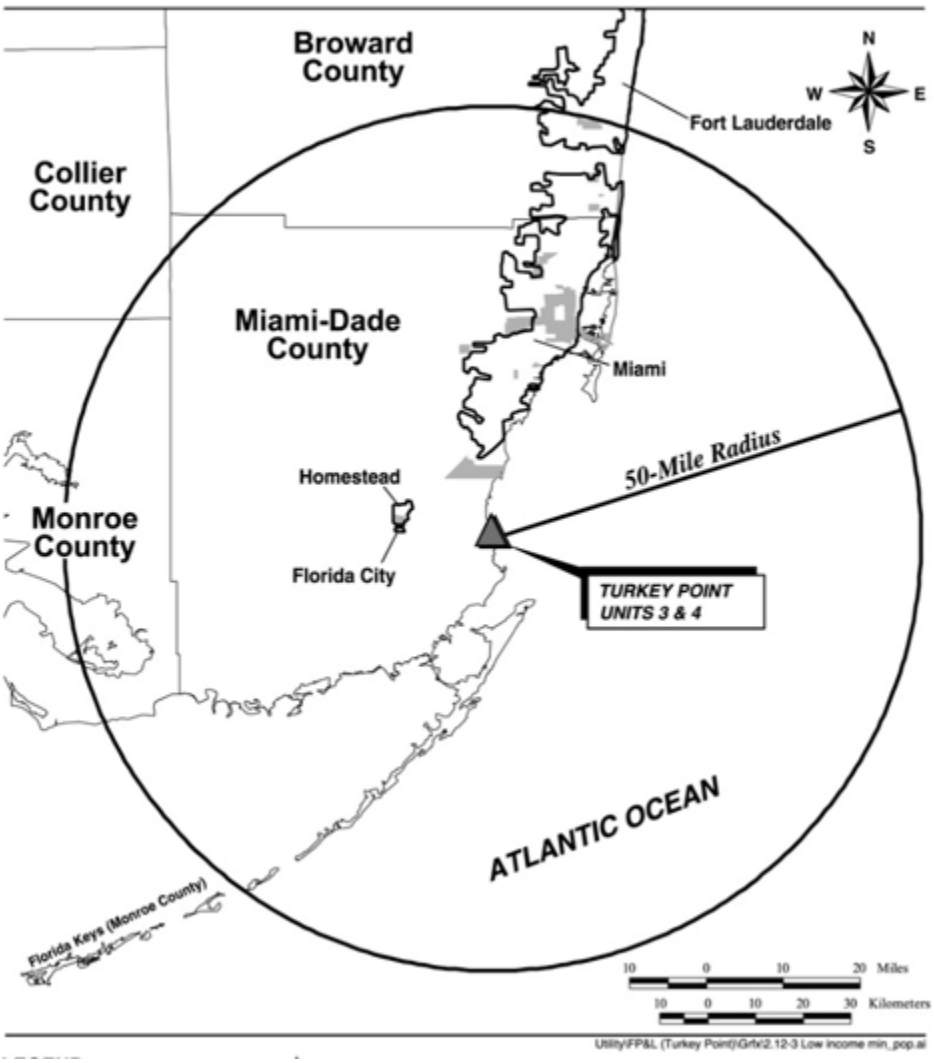
PTN includes two 802 MWe Westinghouse pressurized water reactors (Units 3 and 4) located on a 3,300-acre site two miles east of Homestead, Florida, United States, next to Biscayne National Park located about 25 miles (40 km) south of Miami, Florida near the southernmost edge of Miami-Dade County.

This document matches the structure of the NextEra Common Emergency Plan in following the format of NUREG-0654. It only contains the guidance elements that have site specific information therefore the numbering may not always be sequential.

Emergency Planning for the PTN station is performed within the following two Emergency Planning Zones (EPZ):

- Plume Exposure Pathway EPZ – The PTN Plume Exposure EPZ approximates a 10-mile radius around the plant site and is described and illustrated in the station's Evacuation Time Estimate Study report.
- Ingestion Pathway EPZ – The PTN Ingestion Pathway EPZ approximates a 50-mile radius around the plant site as illustrated below.

Figure 1-1 Plume Exposure Pathway Emergency Planning Zone



A: Assignment of Responsibility

Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organizations within the EPZs have been assigned, the emergency responsibilities of the various supporting organization have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

Regulatory References: 10 CFR 50.47(b)(1); 44 CFR 350.5(a)(1);
10 CFR Part 50, Appendix E.IV.A

A.1.a	The organizations having an operational role specify their concept of operations and relationship to the total effort.

3. Offsite Response Organization (ORO)

A. State Response Organizations

The principle state agencies having planning and implementation responsibilities for emergencies for PTN are:

State of Florida Division of Emergency Management (DEM)

DEM is the state agency authorized to receive initial notification from Florida Power & Light Company and is responsible for mobilizing the state and local emergency response agencies. Specific discussion on transportation of state emergency response personnel to the vicinity of the plant is discussed in the state plan. This emergency response is conducted in accordance with the Florida Radiological Emergency Management Plan for Nuclear Power Plants, prepared by the DEM in coordination with other emergency response agencies. The DEM's responsibilities include:

1) Overall responsibility for coordinating the development and implementation of State and County emergency response plans
2) Command and control of State emergency response resources
3) Notification of State and County response agencies
4) Coordination among State, Federal (i.e., FEMA, EPA, DOE) and Local agencies

The DEM can request support, as necessary, from other state agencies as defined in the State Plan.

Florida Health (FH)

FH is the state agency authorized to provide technical support and expertise in Public Health matters. The FH defined responsibilities include:

1) Emergency medical services, public health, and sanitation
2) Economic and social services

Through the FH Bureau of Radiation Control (BRC):

3) Radiological monitoring off site

4) Off-site radiological exposure control and protective response recommendations for off-site areas

Division of Florida Highway Patrol, Department of Highway Safety and Motor Vehicles

The Florida Highway Patrol, through the coordination of the Department of Law Enforcement, provides the following services:

1) Traffic control

2) Communications (support)

3) Law enforcement coordination

4) Upon request, assist in the transportation of samples for analysis when immediate analysis is necessary.

5) Within their authority, evacuate and exclude individuals from designated public areas.

These services will be provided in accordance with the State Plan.

B. County Response Organizations

The counties within the 50-mile EPZ (ingestion exposure pathway) of PTN are:

- Broward County
- Collier County
- Miami-Dade County
- Monroe County

The Miami-Dade County and Monroe County Plans are a part of the State Plan. The State Plan includes the Miami-Dade and Monroe Counties' Radiological Emergency Organizations. The State Plan also includes host plans for Miami-Dade County and Monroe County, respectively.

The local organizations are described in the State Plan. Counties may have responsibilities with respect to plume exposure risk response, hosting of evacuees, and ingestion pathway protection. Miami-Dade and Monroe Counties have responsibilities with respect to risk, hosting and ingestion pathway. Collier and Broward Counties have responsibility for ingestion pathway.

The State Plan addresses short term actions required in the plume exposure pathway EPZ. The State Plan also addresses the ingestion pathway EPZ. State agencies take the lead in controlling ingestion pathway response. The State Plan also establishes procedures to protect citizens of Miami-Dade and Monroe Counties and visitors to these counties from the effect of an accident at PTN.

The Miami-Dade Mayor and the Monroe County Mayor will take proper and responsible action to protect life, health, safety, property, and the environment from the consequences of nuclear power plant accidents. During radiological emergencies, resources, and personnel of Miami-Dade and Monroe Counties will be reserved and available for use by the County Mayors.

The decision to implement protective action recommendations will be made jointly by the Miami-Dade County Mayor (or designee), Monroe County Mayor (or designee) and either the Governor or authorized representative (State Director, Division of Emergency Management). If time does not permit State involvement in initial decision making, the decision to take protective actions may be made by the Miami-Dade County Mayor and Monroe County Mayor, or their designated alternates. All county personnel and resources will be under the control of the County Mayors. Federal and State resources will also be available to the counties.

Alerting, warning, and evacuation of populations will be in accordance with procedures prescribed in the State Plan. The State Plan also describes hosting responsibilities, including shelter location and operation, and evacuee registration, monitoring, and decontamination.

Responsibility for direction and control rests with the Miami-Dade County Mayor and Monroe County Mayor, unless a disaster declaration under provisions of Florida Statues, Chapter 252 is in effect. If a disaster has been declared, responsibility for direction and control rests with the Governor or authorized representative.

The Miami-Dade County Office of Emergency Management reports to the Miami-Dade County Mayor, and the Monroe County Emergency Management Department to the Monroe County Mayor. This is also true for other county resources, including the County Manager, Sheriffs' Offices, Engineers' Offices, fire departments, public health offices, school boards, and other county organizations.

The Monroe County Mayor (or designee) and Miami-Dade County Mayor (or designee) have responsibility for overall emergency response planning. County Emergency Response Directors are responsible for actual plan development and updating. Miami-Dade County and Monroe County each have an Emergency Operations Center.

Miami-Dade County Office of Emergency Management (OEM) and Monroe County OEM

The county emergency response directors (Monroe and Miami-Dade County) and DEM receive initial notification from PTN simultaneously via electronic transmittal of the notification form and verbal verification of receipt by telephone, or individually from DEM via other alternate communications for all four classes of emergency. They have overall responsibility for initiating any necessary off-site protective actions (including evacuation of off-site areas) based upon available information from the PTN Emergency Director and FHBRC. In addition to overall responsibility, the Emergency Response Directors have responsibility for the following functions:

1) Direction and control of County emergency resources
2) Protective response for off-site areas including warning and evacuation

3) Communications
4) Public information
5) Off-site radiological exposure control
6) Coordination of arrangements for shelter and feeding of evacuees

Through established mutual aid agreements in Fire, Law Enforcement, and Emergency Management, Miami-Dade and Monroe county can supplement resources for responding to a nuclear power plant event (including hostile action based events).

Miami-Dade County Public Safety Department and Monroe County Sheriff

At the request of the respective Emergency Response Directors, the Miami-Dade County Public Safety Department or the Monroe County Sheriff can provide the following support services:

1) Law enforcement (including hostile action based events)
2) Warning and evacuation (implementation)
3) Traffic control
4) Communications (support)
5) Rescue (support)

Other Local Agencies

As defined in the county plans, the Emergency Response Directors can request support as necessary from the following:

1) Department of Fire and Rescue
2) Department of Public Health
3) Public Works/General Services Administration
4) Metro Transit Agency (Miami-Dade County)
5) American Red Cross

A.4	Written agreements with the support organizations having an emergency response role within the EPZs are included. The agreements describe the concept of operations, emergency measures to be provided, mutually acceptable criteria for their implementation, and arrangements for exchange of information.

Site specific letters of agreement (LOAs) or memorandums of understanding (MOUs), are maintained by PTN with the following organizations:

- Baptist Hospital of Miami, FL
- Bechtel Power Corporation
- Florida Highway Patrol
- Framatome
- Institute for Nuclear Power Operations
- Mercy Hospital
- Miami-Dade Fire Rescue Department (NRC Commitment. See 2007-19851 Action ID: 8)
- Miami-Dade Police Department
- Monroe County Sheriff's Department
- PTN Security Group
- United E&C
- US Coast Guard
- US Department of Energy (Savannah River Operations)
- US Department of Energy (Oakridge Operations, REAC/TS)

B: Onsite Emergency Organization

On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.

Regulatory References: 10 CFR 50.47(b)(2); 44 CFR 350.5(a)(2);
10 CFR Part 50, Appendix E.IV.A

B.1.a	The site-specific emergency response organization (ERO) is developed. Note that while other site programs, such as operations, fire response, rescue and first aid, and security, may be controlled via other licensing documents, it is only when these personnel are assigned EP functions that they become part of this regulatory standard. Consideration is given to ensure that EP functions are not assigned to individuals who may have difficulties performing their EP function(s) simultaneously with their other assigned (non-EP) duties. Appendix E to 10 CFR Part 50 requires licensees to perform an on-shift staffing analysis to ensure on-shift staff can support the EP functions assigned, as well as other assigned duties.

The PTN on-shift staffing analysis report has been developed in accordance with 10 CFR 50 Appendix E.IV.A.9 and NEI 10-05.

Refer to EP-PTN-132, On-Shift Staffing Analysis.

B.5	The external organizations, including contractors, that may be requested to provide technical assistance to and augmentation of the ERO, as applicable, are specified.

2. Other External Non-NextEra Support Organizations

   A. Bechtel Power Corporation: Bechtel was the Architect/Engineer for the building and early operation of PTN. Upon request, Bechtel can supply emergency technical services and resources.

   B. Framatome: Framatome is a nuclear services company that can provide engineering and technical support.

   C. United E&C: United E&C is an Architectural/Engineering organization in the nuclear industry. Upon request, they can supply emergency technical services.

C: Emergency Response Support and Resources

Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate state and local staff at the licensee's EOF have been made, and other organizations capable of augmenting the planned response have been identified.

Regulatory References: 10 CFR 50.47(b)(3); 44 CFR 350.5(a)(3);
10 CFR Part 50, Appendix E.IV.E

C.4	Radiological laboratories, their general capabilities, and expected availability to provide radiological monitoring analysis services that can be used in an emergency are described. Plans to augment the identified radiological laboratories are described.

The plant's on-site radiological laboratory serves as the primary facility with backup provided by the Radiation Protection counting room facilities.

If required, the laboratory facilities at FPL's St. Lucie Plant can be used.

Environmental sampling will be augmented by the State's Mobile Emergency Radiological Laboratory (MERL) within approximately 6 hours of notification. Analysis of off-site environmental samples will be performed at the MERL. A FH - BRC representative dispatched to the EOF will coordinate all State off-site field monitoring data and sample media.

D: Emergency Classification System

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Regulatory References: 10 CFR 50.47(b)(4); 44 CFR 350.5(a)(4);
10 CFR Part 50 Appendix E.IV.B and C

D.1	A standard emergency classification and action level scheme is established and maintained. The scheme provides detailed EALs for each of the four ECLs in Section IV.C.1 of Appendix E to 10 CFR Part 50.

The PTN EAL scheme is documented in EP-PTN-131, EAL Technical Basis Manual.

E: Notification Methods and Procedures

Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

Regulatory References: 10 CFR 50.47(b)(5); 44 CFR 350.5(a)(5);
10 CFR Part 50 Appendix E.IV.A, C, D and E

E.1	The mutually agreeable process for direct and prompt notification of response organizations, aligned with the emergency classification and action level scheme, is described.

2. ORO Event Notification

The site-specific state and county entities (24/7 warning points) notified of a declared emergency at PTN are as follows:

- State of Florida Division of Emergency Management
- Miami-Dade County Emergency Response Directors
- Monroe County Emergency Response Directors

E.2	The alert and notification systems (ANSs) used to alert and notify the general public within the plume exposure pathway EPZ and methods of activation are described. This description includes the administrative and physical means, the time required for notifying and providing prompt instructions to the public within the plume exposure pathway EPZ, and the organizations or titles/positions responsible for activating the system.

PTN ANS used to alert and notify the general public within the plume exposure pathway EPZ is described as follows.

1. General Description

The ANS (activated by the OROs) is the primary general public notification system. The ANS is designed to provide an alerting signal throughout the population on an area wide basis throughout the 10-mile EPZ. The OROs, after the alert signal, provide an informational or instructional message to the population via various methods as approved by FEMA.

Alerting, warning, and notification of the public are actions taken by government agencies to provide prompt instructions to the public. As such, government agencies will take actions for areas in the EPZ not covered by ANS, such as waterways, unpopulated wooded areas, military installations, and the like; as described in ORO emergency operating plans, guidelines, and procedures.

Should the primary alerting or notification system fail, ORO plans maintain the FEMA approved back-up alert process.

2. Concept of Activation and Operation

ANS is available and operational in the 10-mile EPZ. The ANS provides an alerting signal to essentially 100% of the population on an area-wide basis throughout the 10-mile EPZ within 15 minutes from the time the cognizant OROs have determined the need for such alerting exists. System testing is used to satisfy FEMA requirements ensuring adequate coverage of the population within the 10-mile EPZ. The emergency plans of each state include evidence of EAS preparation for emergency situations and the means for activating the system. ANS performance is verified via automated reports generated after activation or testing.

PTN is responsible for ensuring the operability of the ANS.

To ensure ANS is maintained, the system is tested on a periodic basis as described in Element F.3 that meets or exceeds FEMA guidance. PTN personnel are notified of failed tests and initiate corrective actions to return ANS equipment to full operational readiness in a timely manner to meet FEMA operability requirements as referenced in the FEMA Radiological Emergency Preparedness Program Manual.

Detailed information on the FEMA approved system used to alert and notify the general public is maintained in EP-PTN-135, Alert and Notification System Design Report.

F: Emergency Communications

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

Regulatory References: 10 CFR 50.47(b)(6); 44 CFR 350.5(a)(6);
10 CFR Part 50, Appendix E.IV.E

F.1	Each principal response organization establishes redundant means of communication and addresses the following provisions:

F.1.a	Continuous capability for notification to, and activation of, the emergency response network, including a minimum of two independent communication links.

This communications network used for PTN emergency response incorporates all telephones, the public address system, and fixed and mobile radio systems employed for routine plant operation and other normal company business. In addition, the communication systems of state and county agencies and other organizations with which the company has emergency assistance agreements will be used to implement emergency response activities.

There are numerous commercial telephone system links connected to the plant for normal dial telephone service. This system represents the primary system for routine communication with areas outside the plant.

1. Portable Satellite Telephones

   Various portable satellite telephones are available to supplement the fixed communication equipment in the plant. These telephones are lightweight battery operated units which may be easily carried by personnel on the plant site and function during an extended loss of AC power event.

2. Emergency Satellite Communication System (EMNET)

   EMNET is an Emergency Satellite Communication System which is available in the Control Room, the Technical Support Center and the Emergency Operations Facility.

3. State Hot Ring Down Telephone

   The State Hot Ring Down telephone is installed in the Control Room, TSC, and EOF. This system uses dedicated commercial telephone lines and is activated through predesignated three-digit access "telephone numbers". Commercial and Satellite telephones serve as backups.

4. NRC FTS Federal Telephone System

   Portions of this system are used to contact the NRC, such as the ENS and HPN. These phone links are described below:

   - Emergency Notification System (ENS) - The ENS is used for initial notification by the licensee, as well as ongoing information on plant systems, status and parameters. The ENS is installed in each Control Room, TSC and EOF.

- Health Physics Network (HPN) - The HPN is used for communication with the licensee on radiological conditions (in-plant and off-site) and meteorological conditions, as well as their assessment of trends and needs for protective measures on site and off site. The HPN is located in the TSC and EOF.

- Emergency Response Data System (ERDS) - The ERDS is a direct near real-time electronic data link between the plant's on-site computer system and the NRC Operations Center. The ERDS provides for the automated transmission of a limited data set of selected plant parameters.

5. Portable Radio Transceiver Sets

   Various portable radio transceivers (walkie-talkies) are available to supplement the fixed communications equipment in the plant. These radios are lightweight battery operated units which may be easily carried by personnel to any location on the plant site. Some of these portable radios are capable of communicating with the FM radio transceiver over a range of several miles.

6. Company Radio System

   The Company radio system consists of a variety of fixed base radio equipment. The System Operations Power Coordinator's office, trouble dispatcher offices, service centers, power plants and mobile service vehicles are equipped with one or more of these radio systems.

   In the event of interruption of the on-site electric service to the base radio stations, back up power is available to the equipment.

   Transceivers are located in the Control Building Elevator vestibule. The operating set and battery back up units for these radios are located in the Unit 3 and 4 Control Room, TSC, and other on-site locations. These radios will provide backup communications between the Turkey Point Plant, Systems Operations Office, EOF, and Juno Beach Office.

7. Plant Page System

   The plant page system, with speakers strategically located throughout the site, provides for the transmission of warning and instructions in event of an emergency. The system is powered from a preferred 120V AC circuit. An alternate power supply is provided. The plant page system uses noise canceling dynamic microphone type handsets located throughout the plant. The system includes one paging channel and one party line channel.

   The plant page system at Units 3 and 4 is completely independent of the system at Unit 5. Notification by phone to the Unit 5 Control Room (by the Unit 3 and 4 Control Room) enables fossil plant employees to be advised of actions to take as a result of events occurring at the nuclear site.

8. Motor Maintenance Circuit

This is a communications circuit, separate from the plant page system, but using 120V AC power from the plant page system power supply source. The circuit consists of various outlets throughout the plant, near major equipment both inside and outside the containment and at the fuel handling areas, into which a headset with a microphone can be plugged, to enable communication to be carried on while leaving the operator's hands free. Outlets for this circuit are also provided in the Control Room of Units 3 and 4 so that communications between the Control Room and outlying stations can be established.

F.2	Systems for coordinated communication methods for applicable fixed and mobile medical support facilities are described.

Communications to local medical facilities is via private telephone lines. Radio communications are possible through the county communications centers to their respective ambulance and hospital facilities.

H: Emergency Facilities and Equipment

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Regulatory References: 10 CFR 50.47(b)(8); 44 CFR 350.5(a)(8);
10 CFR Part 50, Appendix E.IV.E

H.1	A TSC is established, using current Federal guidance, from which NPP conditions are evaluated and mitigative actions are developed.

The Technical Support Center is located in a separate building inside the protected area near the Circulating Water Inlet Bay.

The Technical Support Center (TSC) contains equipment for monitoring airborne contamination and direct radiation. The TSC also contains protective clothing and respiratory protection devices. Pertinent records and drawings are available in the TSC.

The TSC has an emergency communications network including commercial telephone lines to the Control Room, OSC, EOF, Corporate Headquarters, and the ENS dedicated phone line to the NRC Operations Center (in Maryland) and the NRC Region II Office (in Atlanta, GA).

H.2	An OSC is established, using current Federal guidance, from which repair team activities are planned and teams are dispatched to implement actions.

The Operations Support Center (OSC) is maintained in the Maintenance Building. Open line telephone communications are maintained between the OSC and the TSC.

In the event that the OSC becomes uninhabitable, the Emergency Director will designate an alternate location in accordance with procedures.

H.3	An EOF is established, using current Federal guidance, as the primary base of emergency operations for the licensee during a radiological incident. The EOF facilitates the management and coordination of the overall emergency response, including the sharing of information with Federal, state, local, and tribal government authorities.

The Emergency Operations Facility (EOF) is located at the FPL General Office Building (9250 W. Flagler in Miami), approximately 25 miles north of the site.

H.4	An alternative facility (or facilities) is established, using currently provided and/or endorsed guidance, which would be accessible even if the NPP site is under threat of or experiencing hostile action.

The EOF serves as the alternative facility for the TSC and OSC in a hostile action event at the station. The EOF is equipped with offsite and onsite communication, command and control, and technical information to support a plant response from offsite.

A near site incident command post will be established in coordination with Miami-Dade Law Enforcement, and Fire and EMS to facilitate actions onsite.

H.5	A JIC is established, and its location is identified, to coordinate communication from Federal, state, local, and tribal government authorities and licensee personnel with the public and media.

The Joint Information Center (JIC) and the EOF are located in the same building (see Element H.3).

I: Accident Assessment

Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

Regulatory References: 10 CFR 50.47(b)(9); 44 CFR 350.5(a)(9);
10 CFR Part 50, Appendix E.IV.A, B and E

I.4.a	The contingency arrangements to obtain and analyze highly radioactive samples from the reactor coolant system, containment atmosphere and sump, and spent fuel pool storage area are described.

Changes have been made to reflect the NRC approved License Amendment Request received from the NRC via letter dated 02/13/01. The NRC issued Amendment Nos. 211 and 205 (Facility Operating Licenses DPR-31 and DPR-41). The amendments delete TS Section 6.8.4.d, "Post Accident Sampling," and thereby eliminate the requirements to have and Maintain the Post-Accident Sampling System at PTN.

Chemistry procedures describe post-accident contingency plans for obtaining Reactor Coolant, and Residual Heat Removal, and Containment Sump samples. Procedures are in place to assess core damage under accident conditions.

J: Protective Response

A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

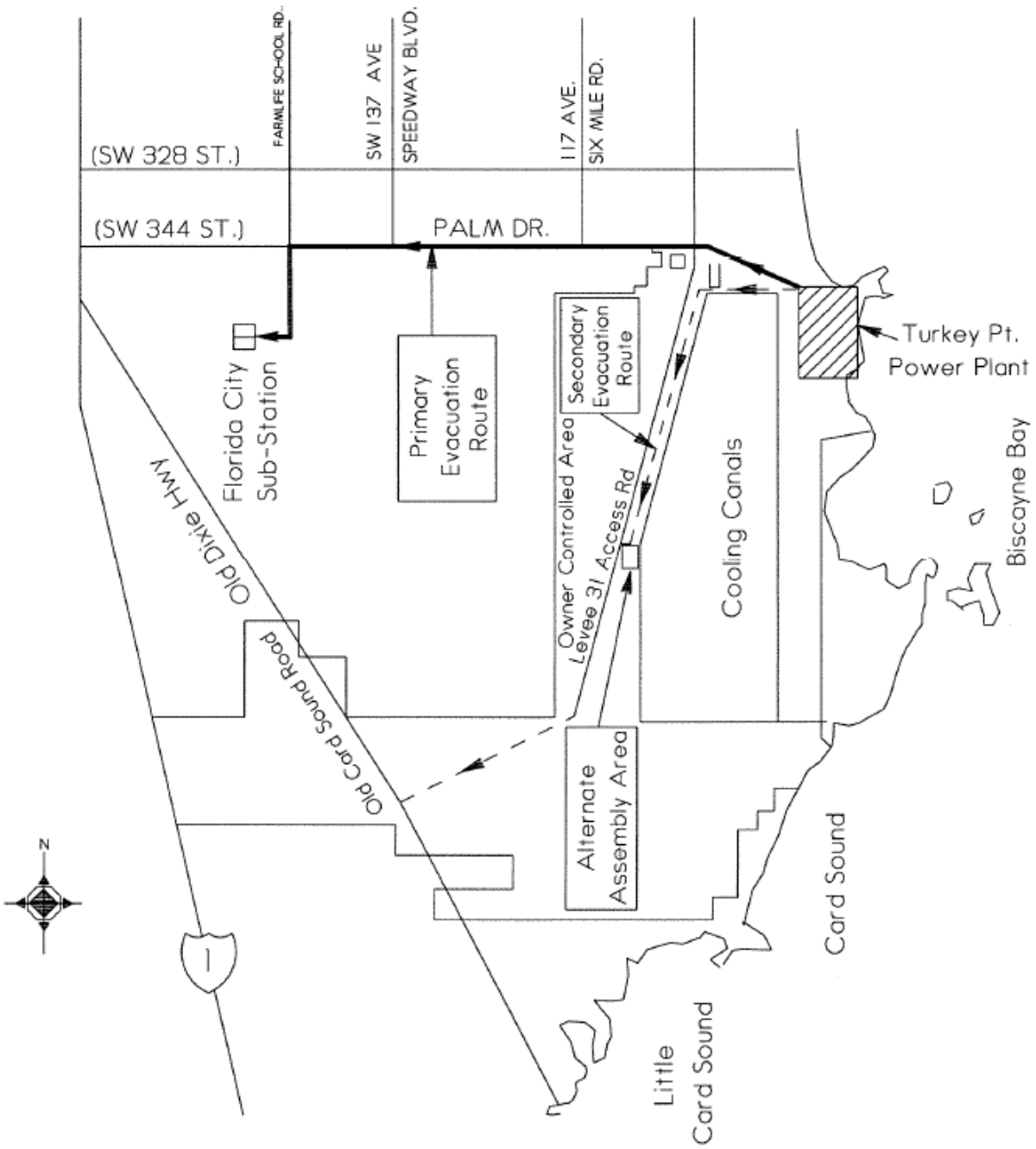
Regulatory References: 10 CFR 50.47(b)(10); 44 CFR 350.5(a)(10);
10 CFR Part 50, Appendix E.IV.E and I

J.2	Provisions are made and coordinated with appropriate offsite entities for evacuation routes and transportation for onsite individuals to a suitable offsite location. Selection of location considers the potential for inclement weather, high traffic density, and potential radiological conditions. Alternate location(s) and route(s) are identified.

The primary site evacuation route is used to evacuate personnel from the Owner Controlled Area. This route uses the plant access road west to Palm Drive, continuing west on Palm Drive approximately 7 miles to Farm Life School Road, turning south on Farm Life School Road, traveling approximately 100 yards, then turning west to the Florida City Substation.

The alternate site evacuation route is used to evacuate personnel when radiological conditions prohibit the use of the primary site evacuation route. This route uses the road north of the main discharge canal from the plant (Lake Warren), continuing west past contractor entrance road through the access gates of the cooling canals continuing past the north end of the cooling canals, turning south along the west perimeter road of the canals for approximately 4 miles to the Alternate Assembly Area, turning west to the Levee 31 Access Road then south to Card Sound Road.

Figure J.2-1: PTN Site Evacuation Routes



J.6	The basis and methodology are established for the development of PARs for the responsible OROs, including evacuation, sheltering, and, if appropriate, radioprotective drug use, for the plume exposure pathway EPZ. Current Federal guidance is used.

The PTN site specific PAR basis is documented in EP-PTN-134, Protective Action Recommendation Technical Basis Manual.

J.8	The latest ETEs are:

J.8.a	Incorporated either by reference or in their entirety into the emergency plan.

The PTN site specific ETE report is documented in EP-PTN-133, Evacuation Time Estimate Study.

K: Radiological Exposure Control

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

Regulatory References: 10 CFR 50.47(b)(11); 44 CFR 350.5(a)(11);
10 CFR Part 50, Appendix E.IV.E

K.1	The radiation protection controls for emergency workers to be implemented during emergencies are described. These controls address the following aspects:

K.1.e	The capability to decontaminate emergency workers, equipment, and vehicles.

Personnel decontamination facilities are available in four locations. Their use will be governed by the nature of the incident.

- FPL Dress Out Building - Showers and sinks available for the decontamination of personnel with no (or minor) injuries.
- Baptist Hospital of Miami - Decontamination shower and contaminated injury treatment room. For interim use to treat severely injured personnel. Located approximately 30 miles north of PTN.
- Mercy Hospital - Contaminated Injury Treatment Room. For interim use to treat severely injured personnel. Located approximately 30 miles north of PTN.
- Decontamination Facility - The Florida City Substation has personnel decontamination capabilities available.

Vehicles will be decontaminated with the use of Miami-Dade County Fire Department equipment.

Extra clothing for personnel whose personal clothing has become contaminated is available in the form of disposable garments.

Contamination monitoring is performed through the use of count rate instruments with Beta-gamma sensitive probes.

Methods for decontamination and monitoring are described in plant procedures. Contamination monitors and procedures are adequate for assessing potentially contaminated wounds either on site or at the decontamination facility.

L: Medical and Public Health Support

Arrangements are made for medical services for contaminated injured individuals.

Regulatory Reference: 10 CFR 50.47(b)(12); 44 CFR 350.5(a)(12); 10 CFR Part 50, Appendix E.IV.E

L.2	Arrangements for the medical treatment of contaminated injured onsite personnel and those onsite personnel who have received significant radiation exposures and/or significant uptakes of radioactive material are described. These arrangements include the following components:

L.2.b	Primary and backup offsite medical facilities.

The offsite medical facilities to treat contaminated, injured personnel from PTN are:

1. Sheridan Emergency Physician Services of South Dade

   Sheridan Emergency Physician Services of South Dade, located at Baptist Hospital of Miami, provides for the immediate availability of fully equipped medical facilities with a staff of physicians and nurses skilled in the treatment of personal injury accompanied by radioactive contamination. This facility is available on a 24-hour basis.

   The patient receiving area is equipped for patient decontamination and the performance of emergency medical procedures for life saving purposes. Additional emergency medical facilities in the hospital include the emergency room and an intensive care unit available for the treatment of decontaminated radiation accident casualties or persons who have received only internal radiation exposures.

   Sheridan Emergency Physician Services of South Dade, will provide for hospital treatment, medical examinations, and laboratory services for those employees and other persons designated by Florida Power & Light who have been involved in a radiation incident.

2. Mercy Hospital

   Mercy Hospital of Miami, also provides for the immediate availability of medical facilities and trained hospital staff in the treatment of personal injury accompanied by radioactive contamination. Medical services are available on a 24-hour basis.

   The patient receiving area is equipped for patient decontamination and the performance of

   emergency medical procedures for life saving purposes. Additional emergency medical facilities in the hospital include the emergency room and an intensive care unit available for the treatment of decontaminated radiation accident casualties or persons who have received only internal radiation exposures.

   Mercy Hospital will provide for hospital treatment, medical examinations, and laboratory services for those employees and other persons designated by Florida Power & Light who have been involved in a radiation incident.

3. Backup Facilities

When primary facilities are considered inappropriate because of the nature or severity of the injury sustained, then the injured person may be referred to a regional facility for hospitalization. Medical records, including bio-assay records, will be maintained permanently and copies furnished to Florida Power & Light.

L.4	Each organization arranges for the transportation of contaminated, injured individuals and the means to control contamination while transporting victims of radiological incidents to medical support facilities and the decontamination of transport vehicle following use.

Normal county ambulance service, company vehicle, or private vehicle will provide transportation for injured personnel.

In case of a life-threatening situation, the Shift Manager will determine the mode of transportation. The US Coast Guard and Miami-Dade Fire Rescue can provide 24-hour helicopter transportation in a life-threatening situation to a designated hospital on an as available basis.

N: Exercises and Drills

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

Regulatory References: 10 CFR 50.47(b)(14); 44 CFR 350.5(a)(14);
10 CFR Part 50, Appendix E.IV.F

N.4.g	**Post-Accident Sampling Drills** Post-accident sampling drills are conducted annually. These drills address capabilities including analysis of liquid and containment atmosphere samples with simulated elevated radiation levels. This criterion is not applicable if the NPP unit(s) does (do) not have licensing basis requirements for post-accident sampling.

Not applicable. PTN has received NRC approval for the elimination of post-accident sample system (PASS) requirements from technical specifications. In accordance with their site specific NRC safety evaluation, contingency plans have been developed for obtaining and analyzing highly radioactive samples; however, these contingency plans do not have to be carried out in emergency plan drills or exercises.

Refer to Element I.4.a for reference to the PASS elimination safety evaluation.

P: Responsibility for the Planning Effort

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

Regulatory References: 10 CFR 50.47(b)(16); 44 CFR 350.5(a)(16);
10 CFR Part 50, Appendix E.IV.B and G

P.6	A listing of annexes, appendices, and supporting plans and their originating agency is included in the emergency plan.

Emergency plans developed by other agencies that support the PTN emergency plan include the following:

- State of Florida Radiological Emergency Management Plan is the external emergency plans specific to the support of PTN. County Emergency Plans are contained in the State Emergency Plan.

P.7	An appendix containing a listing by title of the procedures required to maintain and implement the emergency plan is included. The listing includes the section(s) of the emergency plan to be implemented by each procedure.

Table P.7-1 provides a listing of the PTN site-specific procedures required to maintain and implement the emergency plan, and the section(s) of the emergency plan implemented by each procedure.

Table P.7-1: PTN Emergency Plan Response and Administrative Procedures

Document ID	Document title	Plan Sections Implemented
	[To be developed following E-Plan approval]	

NEXTera ENERGY	**NUCLEAR FLEET** **PROGRAM DESCRIPTION** NON-SAFETY RELATED **INFORMATION USE**	Program No. **EP-SBK-140** Revision No. **0**

Title:

SBK EMERGENCY PLAN ANNEX

Responsible Department: REGULATORY AFFAIRS

Special Considerations:

Revision	Approved By	Approval Date
0		

TYPE	
DATE	
DOCT	PROGRAM
DOCN	EP-SBK-140
SYS	
STATUS	DRAFT
REV	0
# OF PAGES	26

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INTRODUCTION

This Seabrook Station (SBK) Emergency Plan Annex supplements the NextEra Common Emergency Plan by providing site specific information unique to the station. It is subject to the same change and audit requirements as the NextEra Common Emergency Plan.

Seabrook Station is situated on a 900 acre tract of land on the western shore of Hampton Harbor in Rockingham County, near the northern boundary of the Town of Seabrook, New Hampshire. The site is located approximately eight miles southeast of the Exeter, New Hampshire, five miles northeast of Amesbury, Massachusetts, and two miles west of the Hampton Harbor Inlet. The site is bordered on the east by an extensive saltwater marsh and is located on a point of land called "the Rocks," between two small tidal estuaries; the Brown's River and the Hunt's Island Creek. The City of Portsmouth is located approximately eleven miles north of the site while the Boston, Massachusetts metropolitan area is located approximately forty miles south-southwest of the site.

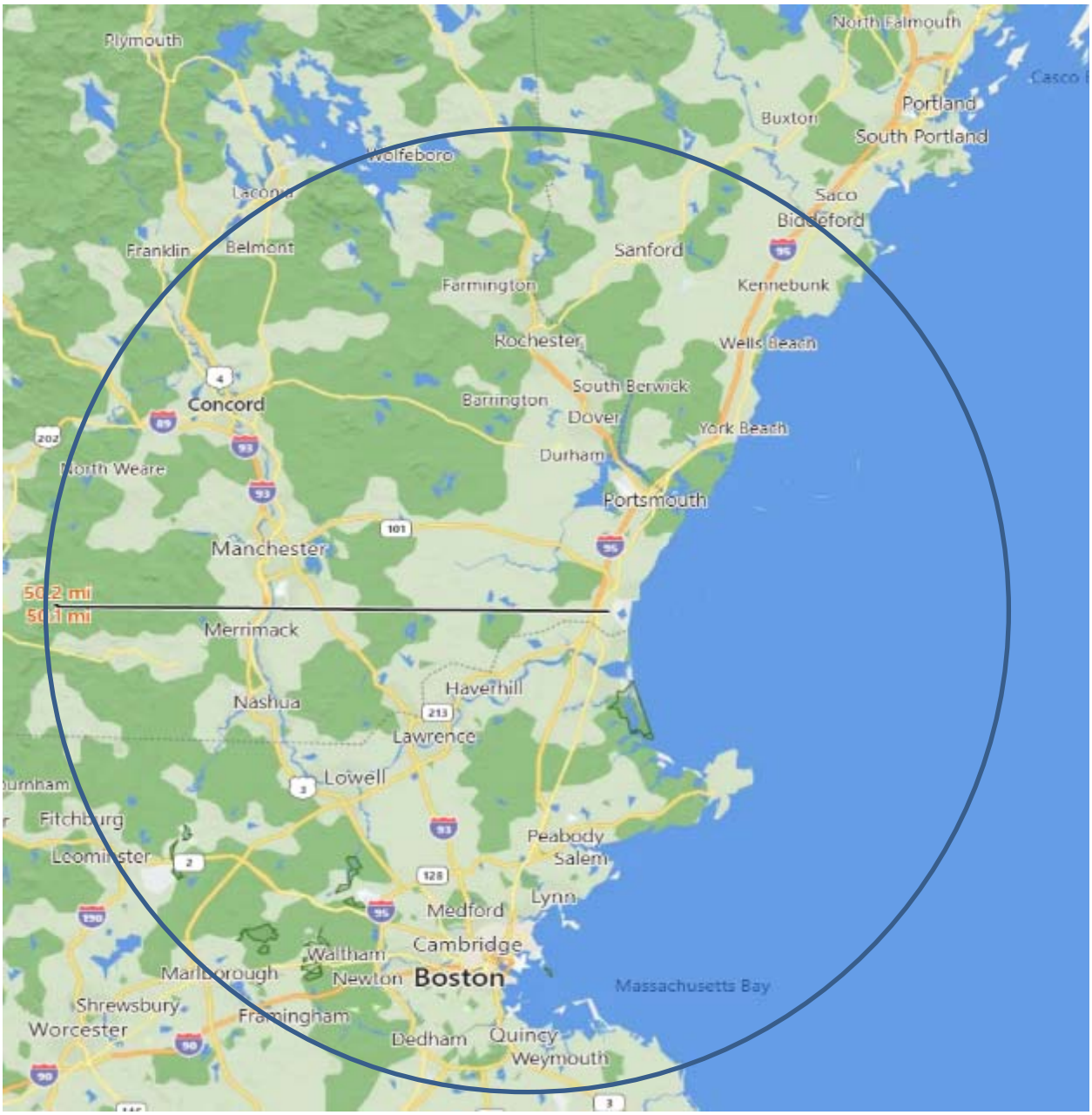
Seabrook Station consists of a four-loop pressurized water reactor. The Station exclusion area can generally be described as a circle of 3000 foot radius. All the area within the site boundary is controlled by NextEra Energy Seabrook, LLC.

This document matches the structure of the NextEra Common Emergency Plan in following the format of NUREG-0654. It only contains the guidance elements that have site specific information therefore the numbering may not always be sequential.

Emergency Planning for the Seabrook Station is performed within the following two Emergency Planning Zones (EPZ):

- Plume Exposure Pathway EPZ – The Seabrook Station Plume Exposure EPZ approximates a 10-mile radius around the plant site and is described and illustrated in the station's Evacuation Time Estimate Study report.

- Ingestion Pathway EPZ – The Seabrook Station Ingestion Pathway EPZ approximates a 50-mile radius around the plant site as illustrated below.



A: Assignment of Responsibility

Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organizations within the EPZs have been assigned, the emergency responsibilities of the various supporting organization have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

Regulatory References: 10 CFR 50.47(b)(1); 44 CFR 350.5(a)(1);
10 CFR Part 50, Appendix E.IV.A

A.1.a	The organizations having an operational role specify their concept of operations and relationship to the total effort.

3. Offsite Response Organizations (OROs)

Seabrook Station is responsible for determining and conveying specific accident information, dose assessment information and protective action recommendations to the State of New Hampshire and Commonwealth of Massachusetts. It is the responsibility the States to evaluate this information, and then determine and implement appropriate protective actions in accordance with their plans and procedures. The local governments will provide the resources needed to implement these actions. Should local resources be exhausted or additional resources needed to accomplish actions in a timely manner, state governments will provide any additional support needed.

a. The State of New Hampshire

The State of New Hampshire supports response activities of the Seabrook site in accordance with the following table:

Key
P = Primary
S = Support

AGENCY / RESPONSIBILITY	Command and Control	Notification Procedures	Emergency Communications	Public Alert	Public Information	Emergency Facilities	Accident Assessment	Protective Response	Radiation Exposure Control	Transportation	Reception Centers	Mass Care Facilities	Medical Services	Social Services	Traffic and Access Control	Law Enforcement Support	Rescue Support	Recovery and Reentry	Training	Exercise and Drills	Program Maintenance	Coord. With Other States
Governors' Office	P				P			P										P				P
NH Division of Homeland Security and Emer. Management	S	S	P	P	S	P	S	S	S	P	S	S						S	P	P	P	S
Public Health (DPHS)		S				S	P	S	P	S	S		P					S	S	S	S	S
State Police		P	S	P				S							P	P						S
Transportation								S		S					S							
Pupil Transportation Safety								S		S		S										
Division of Human Services								S			P	S		P								
National Guard				S				S	S	S					S	S	S					
Civil Air Patrol			S					S														

Key
P = Primary
S = Support

AGENCY / RESPONSIBILITY	Command and Control	Notification Procedures	Emergency Communications	Public Alert	Public Information	Emergency Facilities	Accident Assessment	Protective Response	Radiation Exposure Control	Transportation	Reception Centers	Mass Care Facilities	Medical Services	Social Services	Traffic and Access Control	Law Enforcement Support	Rescue Support	Recovery and Reentry	Training	Exercise and Drills	Program Maintenance	Coord. With Other States
Resources & Economic Development				S											S							
Department of Agriculture				S			S	S										S				
Environmental Services				S			S	S										S				
Marine Patrol				S																		
Fish and Game Department			S	S											S							
U.S. Coast Guard				S											S							
Federal Aviation Admin.				S											S							
Red Cross								S				P		S								
Education		S				S		S				S										
Public Utilities Commission							S															
Emergency Medical Services								S					S				P					

b. Commonwealth of Massachusetts

The Commonwealth of Massachusetts supports response activities of the Seabrook site in accordance with the following table:

Key
P = Primary
S = Support

AGENCY / RESPONSIBILITY	Command and Control	Communications	Notification	Public Alerting	Public Information	Accident Assessment	Shelter in Place	Evacuation	Access and Traffic Control	Food, Water and Milk Control	Radiological Exposure Control	Emergency Medical Services	Mass Care	Law Enforcement	Fire and Rescue	Public Health and Sanitation	Reentry and Recovery
Governor	P				P		P	P									P
Emergency Management	S	P	P	P	S	S	S	S	S	S	S	S	S	S	S	S	S
Department of Public Health			S		S	P	S	S		P	P	P				P	S
State Police		S		S			S	S	P					P			S
Highway Department		S							S								
Mass. National Guard		S						S	S		S			S			
Dept. Env. Quality Engineering						S				S							
Dept. Environmental Management				S			S	S									
Dept. Food and Agriculture						S				S							
Dept. Fish, Wildlife & P.C. Vehicles										S							
Nuclear Incident Advisory Team						S											

c. The State of Maine

In addition, the State of Maine, which lies within the ingestion EPZ, has the capability to carry out appropriate response actions. These plans describe their respective responsibilities, authorities, capabilities, and emergency functions.

d. Local Governments

Local governments within the sites' plume exposure EPZ, in coordination with the emergency management agencies of the states, maintain emergency plans which, should the need arise, contain instructions to carry out specific protective measures, dependent upon various emergency conditions

The local governments with emergency service departments and other agencies interrelated to these local governments within the 10-mile EPZ (plume exposure pathway) of Seabrook Station are:

<u>New Hampshire</u>

- Seabrook
- Portsmouth
- Greenland
- Rye
- North Hampton
- South Hampton
- Hampton
- Hampton Falls
- Stratham
- Exeter
- Newfields
- Brentwood
- Kingston
- East Kingston
- Kensington
- Newton
- New Castle

<u>Massachusetts</u>

- Salisbury
- Newburyport
- Newbury
- West Newbury
- Amesbury
- Merrimac

Both New Hampshire and Massachusetts, as well as the localities within the plume EPZ, have prepared plans for a response to an emergency at Seabrook Station. Refer to the state and local Emergency Operations Plans for details on their concept of operations.

A.4	Written agreements with the support organizations having an emergency response role within the EPZs are included. The agreements describe the concept of operations, emergency measures to be provided, mutually acceptable criteria for their implementation, and arrangements for exchange of information.

Site specific letters of agreement (LOAs) or memorandums of understanding (MOUs), are maintained by Seabrook Station with the following organizations:

- State of New Hampshire and Commonwealth of Massachusetts
- Town of Seabrook Fire Department, Ambulance Service
- Town of Seabrook Fire Department, Fire Support Service
- Exeter Hospital
- Wentworth-Douglass Hospital
- Portsmouth Police Department
- Pease Development Authority (EOF Space)

Letters of agreement with participating local service organizations are maintained in Emergency Preparedness Department files.

B: Onsite Emergency Organization

On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.

Regulatory References: 10 CFR 50.47(b)(2); 44 CFR 350.5(a)(2);
10 CFR Part 50, Appendix E.IV.A

B.1.a	The site-specific emergency response organization (ERO) is developed. Note that while other site programs, such as operations, fire response, rescue and first aid, and security, may be controlled via other licensing documents, it is only when these personnel are assigned EP functions that they become part of this regulatory standard. Consideration is given to ensure that EP functions are not assigned to individuals who may have difficulties performing their EP function(s) simultaneously with their other assigned (non-EP) duties. Appendix E to 10 CFR Part 50 requires licensees to perform an on-shift staffing analysis to ensure on-shift staff can support the EP functions assigned, as well as other assigned duties.

The Seabrook Station on-shift staffing analysis report has been developed in accordance with 10 CFR 50 Appendix E.IV.A.9 and NEI 10-05.

Refer to EP-SBK-142, SBK OnShift Staffing Analysis.

B.5	The external organizations, including contractors, that may be requested to provide technical assistance to and augmentation of the ERO, as applicable, are specified.

2. Other External (non-NextEra) Support Organizations

   Westinghouse (the NSSS vendor for Seabrook Station): Upon request, Westinghouse will provide emergency technical assistance, including equipment and/or services, in support of Seabrook Station in the unlikely event of an emergency.

C: Emergency Response Support and Resources

Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate state and local staff at the licensee's EOF have been made, and other organizations capable of augmenting the planned response have been identified.

Regulatory References: 10 CFR 50.47(b)(3); 44 CFR 350.5(a)(3); 10 CFR Part 50, Appendix E, Sec. IV.E

C.4	Radiological laboratories, their general capabilities, and expected availability to provide radiological monitoring analysis services that can be used in an emergency are described. Plans to augment the identified radiological laboratories are described.

The station's main chemistry lab is the primary location equipped for chemical and radiological analysis.

Additionally, GEL Laboratories, Charleston, South Carolina, is available on a continuous 24 hour, seven days a week basis to provide a full spectrum of radio-analytical measurements on environmental sample media.

GEL Laboratories is capable of providing on a continuous basis a full spectrum of radio-analysis of environmental samples which includes identification of principal accident radio-nuclides and their evaluation against EPA dose guidelines for relocation and FDA derived intervention levels associated with consumption of contaminated foods.

D: Emergency Classification System

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Regulatory References: 10 CFR 50.47(b)(4); 44 CFR 350.5(a)(4);
10 CFR Part 50 Appendix E.IV.B and C

D.1	A standard emergency classification and action level scheme is established and maintained. The scheme provides detailed EALs for each of the four ECLs in Section IV.C.1 of Appendix E to 10 CFR Part 50.

The Seabrook Station EAL scheme is documented in EP-SBK-141, SBK Emergency Action Level Technical Basis Document.

E: Notification Methods and Procedures

Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

Regulatory References: 10 CFR 50.47(b)(5); 44 CFR 350.5(a)(5);
10 CFR Part 50 Appendix E.IV.A, C, D and E

E.1	The mutually agreeable process for direct and prompt notification of response organizations, aligned with the emergency classification and action level scheme, is described.

2. ORO Notification

The following state 24/7 warning points are notified of a declared emergency at Seabrook Station:

- New Hampshire State Police (NHSP) Communications Center Dispatcher
- Massachusetts Emergency Management Agency (MEMA) 24-hour Dispatcher

E.2	The alert and notification systems (ANSs) used to alert and notify the general public within the plume exposure pathway EPZ and methods of activation are described. This description includes the administrative and physical means, the time required for notifying and providing prompt instructions to the public within the plume exposure pathway EPZ, and the organizations or titles/positions responsible for activating the system.

Seabrook Station ANS used to alert and notify the general public within the plume exposure pathway EPZ is described as follows:

The ANS (activated by the OROs) is the primary general public notification system. The ANS is designed to provide an alerting signal throughout the population on an area wide basis throughout the 10-mile EPZ. The OROs, after the alert signal, provide an informational or instructional message to the population via various methods as approved by FEMA.

Seabrook Station is responsible for ensuring the operability of the ANS

Detailed information on the FEMA approved system used to alert and notify the general public is maintained in EP-SBK-145, SBK Alert and Notification System Design Report.

F: Emergency Communications

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

Regulatory References: 10 CFR 50.47(b)(6); 44 CFR 350.5(a)(6);
10 CFR Part 50, Appendix E.IV.E

F.1	Each principal response organization establishes redundant means of communication and addresses the following provisions:

F.1.a	Continuous capability for notification to, and activation of, the emergency response network, including a minimum of two independent communication links.

Seabrook Station has established an emergency communications network for notifying and coordinating activities with offsite and onsite emergency response organizations. A summary of the communication network is presented below.

1. Nuclear Alert System

   The Nuclear Alert System (NAS), originating in the Control Room, and comprised of leased telephone lines, is used to notify the state 24/7 warning points of a declared emergency at Seabrook Station.

   The Nuclear Alert System (NAS) has been installed in the two states' Emergency Operations Centers (EOCs), the MA Region I EOC in Tewksbury, the NH Rockingham County warning point in Brentwood, and the Emergency Operations Facility (EOF).

   Provisions are made for backup power to the Nuclear Alert System.

2. Telephone System

   The Telephone System is used as a means of communications for notification and coordination with onsite and offsite organizations/teams. The telephone system is interconnected with the public address system and leased communications systems. If power is lost to the Station PBX, certain extensions located in the Control Room, TSC, OSC and Guard Island will be automatically connected to the public telephone exchange network directly. Power to the PBX is backed up by uninterruptible power supplies and the diesel generator.

   The telephone system can also access the UHF Trunked Radio System via a telephone interconnect.

3. Commercial Pager Service

   Seabrook Station utilizes a commercially available paging service to notify the ERO. These digital display pagers are activated by telephone or by computer software. Pagers may be activated collectively by a group call number or individually. This pager system uses multiple transmitter sites within a twenty-five-mile radius of Seabrook Station.

4. Offsite Monitoring Team Radio Network

   The Offsite Monitoring Team Radio Network is a UHF network, using radio frequencies supporting the Seabrook Public Alert Notification System (PANS). This network consists of the following:

   - A tone remote, control base, and antenna assigned to the Emergency Operations Facility (EOF) which can transmit to radiological survey via five distinct channels.
   - Mobile radios are installed in dedicated radiological survey vehicles and portable mobiles are available which can be installed in any vehicle.
   - Portable radios are available to support State radiological survey teams, as needed.

   All components of the EOF controls are backed up by emergency power. All system repeaters are backed up by emergency power.

   Seabrook Station also maintains a commercially available push-to-talk mobile communications network designed to provide two-way communications with State and utility radiological survey teams.

5. Station Paging System

   A plant paging system is used for alerting in-plant personnel of emergencies. A central control panel is located in the Control Room. The paging system is accessed through dedicated paging system handsets which are located throughout the plant including the Control Room, Technical Support Center, Operations Support Center, and Security Guard House.

   The system consists of four channels, and is utilized as a page/talk system under normal operations. During emergency situations, the system can be used for (1) alerting Station personnel; (2) coordinating activities between onsite response teams and the Technical Support Center; (3) calling missing persons that may be in the Station; (4) coordinating activities between Control Room and Technical Support Center; and (5) communicating between Station centers.

   A multi-tone generator is associated with the paging system. This generator produces the various alarms designated to alert Station personnel of emergency situations. Alerting is ensured by the location of the page system speakers. In high background noise areas, beacon lights or similar devices supplement the speakers. The alerting signal is manually initiated from the Control Room by keying the appropriate alarm station. The evacuation alarm takes priority over all other transmissions.

   Power to the paging system is provided by uninterruptible power supplies, independent from the power supply for the telephone system. The paging system is used daily and the alerting alarm is tested weekly.

6. Sound-Powered Telephone System

   The Station has been equipped with a multiple loop sound-powered telephone system. Jack locations have been provided near many major pieces of equipment and on control panels,

instrument racks, motor control centers, unit substations and switchgear. Switching panels are provided in the Control Room to enable the loops to be connected together. A supply of sound powered telephone handsets and cables are available in the Control Room emergency supply room. Since no external power is necessary for operation, the system is available during an emergency; however, its greatest application would occur during a recovery phase.

F.2	Systems for coordinated communication methods for applicable fixed and mobile medical support facilities are described.

The Seabrook Fire Department ambulance will be used for medical transportation of injured and contaminated personnel. The ambulance is capable of radio communications with the hospital while en route with a patient.

H: Emergency Facilities and Equipment

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Regulatory References: 10 CFR 50.47(b)(8); 44 CFR 350.5(a)(8);
10 CFR Part 50, Appendix E.IV.E

H.1	A TSC is established, using current Federal guidance, from which NPP conditions are evaluated and mitigative actions are developed.

A Technical Support Center (TSC) has been established in the Control Building to direct post-accident evaluation and assist in recovery actions. The TSC is habitable to the same degree as the Control Room for postulated accident conditions. The TSC has the capability to access and display Station parameters, including the Safety Parameter Display System (SPDS), independent from actions in the Control Room. The TSC is included in the Station emergency communications network. The TSC has access to the Seabrook Updated Final Safety Analysis Report (UFSAR) and station procedures, and a selected set of system prints, system flow diagrams, cable/wiring diagrams and equipment specifications. The TSC has the capability to assess radiological habitability conditions by monitoring for direct radiation and airborne particulates, and sampling for airborne radioiodines.

H.2	An OSC is established, using current Federal guidance, from which repair team activities are planned and teams are dispatched to implement actions.

The Operations Support Center (OSC), located on the first floor of the Administration and Service Building, provides a general assembly/dispatch area for assigned Station manpower needed to effect protective and corrective actions in support of the emergency situation. The OSC is included in the Station emergency communications network.

Emergency equipment is provided at the Radiological Controlled Area (RCA) access point located within the OSC. Tools required by repair teams are provided at tool cribs maintained by the Maintenance Department in the RCA and other locations in the plant. Should conditions warrant evacuation of this center, the TSC will assume OSC functions; otherwise the OSC will remain active and staffed until terminated by the Site Emergency Director.

H.3	An EOF is established, using current Federal guidance, as the primary base of emergency operations for the licensee during a radiological incident. The EOF facilitates the management and coordination of the overall emergency response, including the sharing of information with Federal, state, local, and tribal government authorities.

An Emergency Operations Facility (EOF) is located at the Pease International Tradeport in Portsmouth, New Hampshire. The State of New Hampshire Incident Field Office is physically co-located with the EOF. This arrangement ensures close coordination with State emergency response staff.

The EOF is included in the Station emergency communications network, as described in Section F, which links all emergency response facilities, monitoring and assistance teams dispatched from the EOF, and offsite agencies. The EOF has the capability to access and display Station parameters, including the Safety Parameter Display System, independent of both the TSC and Control Room. Backup power to the EOF is available.

Radiological assessment, monitoring and evaluation, and protective action recommendation formulation are directed from the EOF. The EOF organization is responsible for continuous evaluation and coordination of all Seabrook Station activities related to an emergency having, or potentially having, adverse radiological consequences. Copies of selected building prints and general building layouts are available via the LAN and on disk and can be printed out at the EOF. Emergency planning documents applicable to Seabrook Station, including area maps, emergency response procedures, State and local emergency plans are available in the EOF. The Seabrook Station updated UFSAR is available via the LAN. A backup disk version is maintained at the EOF.

The EOF has sufficient assembly space and is designed to accommodate responding representatives from government and industry. The EOF serves as the base of operations for Station material control, coordination of industry support, and establishment of a long-term organization to recover from the accident conditions and results. The EOF can serve as a centralized meeting location for key representatives from offsite authorities and Station management. The EOF can also act as a focal point for the coordination and acquisition of company resources and liaison with the Seabrook Station Joint Owners, American Nuclear Insurers and Institute of Nuclear Power Operations (INPO).

Emergency equipment maintained at the EOF includes gear necessary to assess radiological habitability. This consists of monitoring for direct radiation, and sampling for airborne radioparticulates and radioiodines. The EOF provides information needed by Federal, State and local authorities for implementation of offsite emergency plans.

H.4	An alternative facility (or facilities) is established, using currently provided and/or endorsed guidance, which would be accessible even if the NPP site is under threat of or experiencing hostile action.

An alternative facility for TSC responders has been identified as a designated area in the EOF for hostile action-based events or other catastrophic events that prevent site access in accordance with 10 CFR 50 Appendix E, Section IV, E, 8, d. Procedures for TSC responders are located in the alternative facility.

An alternative facility for OSC responders has been identified as a designated area in the EOF for hostile action-based events or other catastrophic events that prevent site access in accordance with 10 CFR 50 Appendix E, Section IV, E, 8, d. Procedures for OSC responders are located in the alternative facility.

H.5	A JIC is established, and its location is identified, to coordinate communication from Federal, state, local, and tribal government authorities and licensee personnel with the public and media.

The Joint Information Center (JIC) is co-located with the EOF in Portsmouth, New Hampshire.

I: Accident Assessment

Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

Regulatory References: 10 CFR 50.47(b)(9); 44 CFR 350.5(a)(9);
10 CFR Part 50, Appendix E.IV.A, B and E

I.4.a	The contingency arrangements to obtain and analyze highly radioactive samples from the reactor coolant system, containment atmosphere and sump, and spent fuel pool storage area are described.

When an emergency condition results in core damage, an in-station (e.g., containment) source term that could be subsequently released, or a release, station emergency response personnel will obtain and analyze various post accident samples. Potential sampling points include containment atmosphere, gas spaces in other plant areas, and the plant vent stack. Per the Seabrook Station Post Accident Assessment Program, archive samples of the reactor coolant system and containment sump can also be obtained and analyzed. Source-term components, including radioiodine, would be quantified and evaluated in terms of actual or potential impact.

Chemistry procedures describe post-accident contingency plans for obtaining Reactor Coolant, and Residual Heat Removal, and Containment Sump samples. Procedures are in place to assess core damage under accident conditions.

J: Protective Response

A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Regulatory References: 10 CFR 50.47(b)(10); 44 CFR 350.5(a)(10);
10 CFR Part 50, Appendix E.IV.E and I

J.2	Provisions are made and coordinated with appropriate offsite entities for evacuation routes and transportation for onsite individuals to a suitable offsite location. Selection of location considers the potential for inclement weather, high traffic density, and potential radiological conditions. Alternate location(s) and route(s) are identified.

Upon being released, station evacuees will be advised of area evacuation routes by security. Site evacuation routes are noted in Figure J.2-1 SBK Evacuation Routes, used to depart from the site, and evacuation from the 10-mile EPZ will be by way of evacuation routes identified in the ETE.

If a radioactive release has occurred which might result in the contamination of Station evacuees, personnel trained in contamination monitoring techniques will proceed to the remote monitoring area to perform contamination monitoring of evacuated vehicles and personnel. All evacuating personnel will be instructed to report to the remote monitoring area to be surveyed for contamination levels. If contamination is detected, actions will be implemented that appropriately correspond to the type and degree of contamination and that are consistent with the priorities of the emergency actions and conditions underway.

Remote Monitoring Area (RMA), shown in Figure J.2-2, Remote Monitoring Area Layout, is located at the Security Firing Range on Rocks Road is designated for site evacuees, and the process to use them, have been identified.

J.6	The basis and methodology are established for the development of PARs for the responsible OROs, including evacuation, sheltering, and, if appropriate, radioprotective drug use, for the plume exposure pathway EPZ. Current Federal guidance is used.

The Seabrook Station site specific basis adaptation of NUREG-0654 Supplement 3 PARs is documented in EP-SBK-144, SBK Protective Action Recommendation Technical Basis Manual.

J.8	The latest ETEs are: incorporated either by reference or in their entirety in the emergency plan.

J.8.a	Incorporated either by reference or in their entirety in the emergency plan.

The Seabrook Station site specific ETE report is documented in EP-SBK-143, SBK Evacuation Time Estimate Study.

Figure J.2-1: Seabrook Station Evacuation Routes

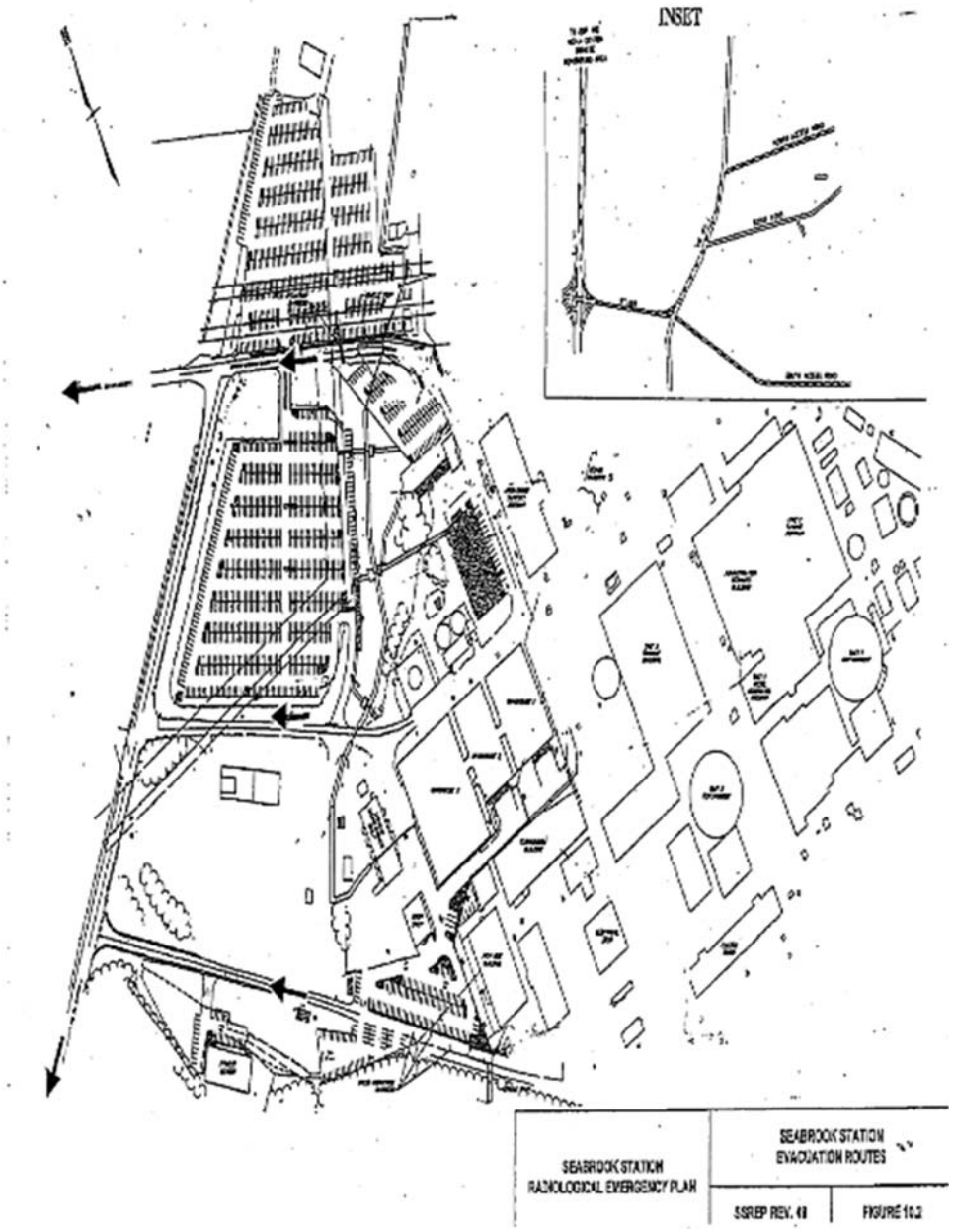
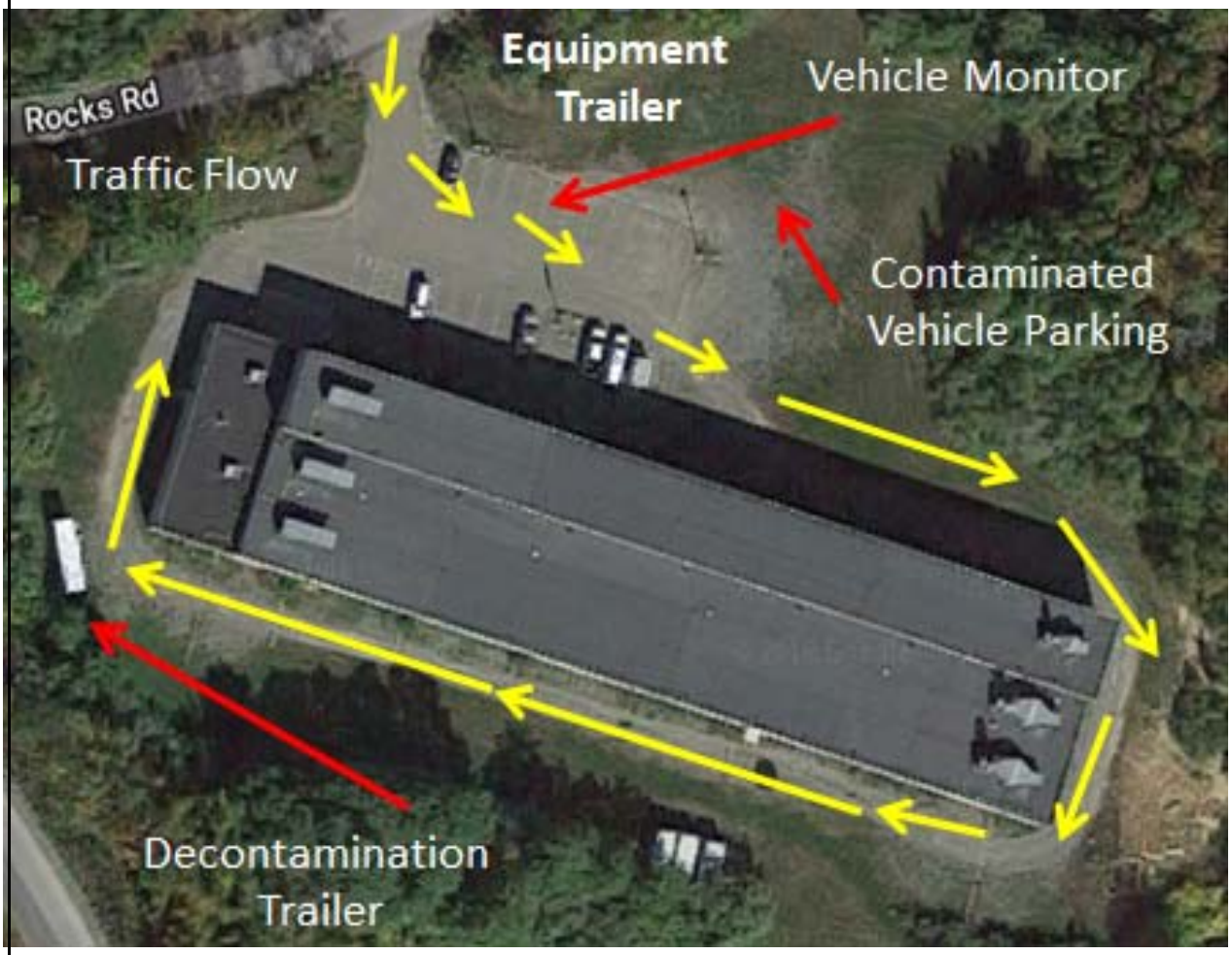


Figure J.2: Remote Monitoring Area Layout



K: Radiological Exposure Control

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

Regulatory References: 10 CFR 50.47(b)(11); 44 CFR 350.5(a)(11);
10 CFR Part 50, Appendix E.IV.E

K.1	The radiation protection controls for emergency workers to be implemented during emergencies are described. These controls address the following aspects:

K.1.e	The capability to decontaminate emergency workers, equipment, and vehicles.

Station decontamination facilities are located in the Operations Support Center, specifically at the Radiologically Controlled Area HP Control Point. The RCA shower is available for personnel decontamination purposes. Soap, brushes, etc., are available to aid in decontamination efforts. Survey instrumentation for personnel monitoring is available here. If necessary, internal contamination can be assessed with the use of whole body count equipment (FASTSCAN) or its backup. All waste generated through the use of the decontamination facilities is collected and processed by the station liquid radwaste system.

L: Medical and Public Health Support

Arrangements are made for medical services for contaminated injured individuals.

Regulatory Reference: 10 CFR 50.47(b)(12); 44 CFR 350.5(a)(12); 10 CFR Part 50, Appendix E.IV.E

L.2	Arrangements for the medical treatment of contaminated injured onsite personnel and those onsite personnel who have received significant radiation exposures and/or significant uptakes of radioactive material are described. These arrangements include the following components:

L.2.b	Primary and backup offsite medical facilities to treat contaminated, injured personnel on a continuous basis.

The primary and backup offsite medical facilities to treat contaminated, injured personnel from Seabrook Station are:

Primary – The Exeter Hospital, Inc. – Exeter Hospital will provide medical assistance to Seabrook Station personnel. The agreement provides for the treatment of personnel who may be considered to have substantial radiation related injuries, or who may have been exposed to and contaminated by radioactive materials.

Backup – Wentworth-Douglass Hospital in Dover, NH may be utilized if the treatment required extend beyond the capacity of the Exeter Hospital.

L.4	Each organization arranges for the means to control contamination while transporting victims of radiological accidents to medical support facilities and the decontamination of transport vehicle following use.

The Seabrook Fire Department ambulance will be used for medical transportation of injured and contaminated personnel. The ambulance is capable of radio communications with the hospital while en route with a patient.

N: Exercises and Drills

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

Regulatory References: 10 CFR 50.47(b)(14); 44 CFR 350.5(a)(14);
10 CFR Part 50, Appendix E.IV.F

N.4.g	**Post-Accident Sampling Drills** Post-accident sampling drills are conducted annually. These drills address capabilities including analysis of liquid and containment atmosphere samples with simulated elevated radiation levels. This criterion is not applicable if the NPP unit(s) does (do) not have licensing basis requirements for post-accident sampling.

Post-Accident Sampling Drills will be conducted annually. These drills will address capabilities including analysis of liquid and containment atmosphere samples with simulated elevated radiation levels.

P: Responsibility for the Planning Effort

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

Regulatory References: 10 CFR 50.47(b)(16); 44 CFR 350.5(a)(16);
10 CFR Part 50, Appendix E.IV.B and G

P.6	A listing of annexes, appendices, and supporting plans and their originating agency is included in the emergency plan.

External emergency plans specific to the support of Seabrook Station include the following:

1. State Plans
   - New Hampshire Radiological Emergency Response Plan
   - Massachusetts Radiological Emergency Response Plan for Licensed Nuclear Power Plants - Appendix 2 to Hazard Specific Supplement No. 6
   - Maine Ingestion Pathway Plan for Seabrook Station
2. Local Plans

   New Hampshire

   - Seabrook
   - Portsmouth
   - Greenland
   - Rye
   - North Hampton
   - South Hampton
   - Hampton
   - Hampton Falls
   - Stratham
   - Exeter
   - Newfields
   - Brentwood
   - Kingston
   - East Kingston
   - Kensington
   - Newton
   - New Castle

   Massachusetts

   - Salisbury
   - Newburyport
   - Newbury
   - West Newbury
   - Amesbury
   - Merrimac

P.7	An appendix containing a listing by title of the procedures required to maintain and implement the emergency plan is included. The listing includes the section(s) of the emergency plan to be implemented by each procedure.

Table P.7-1 provides a listing of the Seabrook Station site-specific procedures required to maintain and implement the emergency plan, and the section(s) of the emergency plan implemented by each procedure.

Table P.7-1: Seabrook Station Emergency Plan Response and Administrative Procedures

Document ID	Document Title	Plan Sections Implemented
	[To be developed following E-Plan approval]	

ENCLOSURE 10

OFFSITE RESPONSE ORGANIZATION CONCURRENCE

POINT BEACH NUCLEAR PLANT
CONCURRENCE LETTERS

NEXTera ENERGY POINT BEACH

July 14, 2022 L-2022-092

Brent Krebs
Radiation Protection Program Manager
Wisconsin Emergency Management
2400 Wright St.
Madison, WI 53704

REQUEST FOR CONCURRENCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Dear Mr. Krebs:

NextEra Energy Point Beach (NEPB) is enhancing the emergency preparedness program for Point Beach Nuclear Plant by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Point Beach Nuclear Plant. There will be several advantages and efficiencies benefitting the nuclear fleet and our agency partners brought about by adoption of the CEP.

The CEP and Site-Specific Annexes were developed consistent with NUREG-0654/FEMA-REP-1 Revision 2, *Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*, with deviations. Applying NUREG-0654 Revision 2 guidance to the CEP takes advantage of lessons learned and improved technologies made available since 1980 when Revision 1 of NUREG-0654 was published.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. NEPB requests your review of, and concurrence with, the enclosed CEP and associated applicable Site-Specific Annex by August 5, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact Denny Smith.

Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return.

For future correspondence, please contact me or Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Denny Smith
EP Manager
Site Representative
(920)342.6095
denny.smith@nexteraenergy.com
NextEra Energy Point Beach, LLC

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. The requisite agency Radiological Emergency Preparedness (REP) documents will be updated to support CEP implementation. Accordingly, I concur with implementation of the proposed CEP.

	7/18/22
Print / Signature Wisconsin Emergency Management	Date

NEXTera ENERGY POINT BEACH

July 14, 2022

L-2022-088

Tracy Nollenberg
Kewaunee County Emergency Management Director
625 Third Street
Luxemburg, WI 54217

REQUEST FOR CONCURRENCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Dear Ms. Nollenberg:

NextEra Energy Point Beach (NEPB) is enhancing the emergency preparedness program for Point Beach Nuclear Plant by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Point Beach Nuclear Plant. There will be several advantages and efficiencies benefitting the nuclear fleet and our agency partners brought about by adoption of the CEP.

The CEP and Site-Specific Annexes were developed consistent with NUREG-0654/FEMA-REP-1 Revision 2, *Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*, with deviations. Applying NUREG-0654 Revision 2 guidance to the CEP takes advantage of lessons learned and improved technologies made available since 1980 when Revision 1 of NUREG-0654 was published.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. NEPB requests your review of, and concurrence with, the enclosed CEP and associated applicable Site-Specific Annex by August 5, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact Denny Smith.

Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return.

For future correspondence, please contact me or Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Denny Smith
EP Manager
Site Representative
(920)342.6095
denny.smith@nexteraenergy.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. The requisite agency Radiological Emergency Preparedness (REP) documents will be updated to support CEP implementation. Accordingly, I concur with implementation of the proposed CEP.

Tracy L Nollenberg / Tracy L Nollenberg — 07-25-2022

Print / Signature — Date

Kewaunee County

NEXTera® ENERGY
POINT BEACH

July 14, 2022

L-2022-090

Travis Waack
Manitowoc County Emergency Management Director
1024 S. 9th St.
Manitowoc, WI 54220

REQUEST FOR CONCURRENCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Dear Mr. Waack:

NextEra Energy Point Beach (NEPB) is enhancing the emergency preparedness program for Point Beach Nuclear Plant by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Point Beach Nuclear Plant. There will be several advantages and efficiencies benefitting the nuclear fleet and our agency partners brought about by adoption of the CEP.

The CEP and Site-Specific Annexes were developed consistent with NUREG-0654/FEMA-REP-1 Revision 2, *Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*, with deviations. Applying NUREG-0654 Revision 2 guidance to the CEP takes advantage of lessons learned and improved technologies made available since 1980 when Revision 1 of NUREG-0654 was published.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. NEPB requests your review of, and concurrence with, the enclosed CEP and associated applicable Site-Specific Annex by August 5, 2022

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact Denny Smith.

Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return.

For future correspondence, please contact me or Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Denny Smith
EP Manager
Site Representative
(920)342.6095
denny.smith@nexteraenergy.com
NextEra Energy Point Beach, LLC

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. The requisite agency Radiological Emergency Preparedness (REP) documents will be updated to support CEP implementation. Accordingly, I concur with implementation of the proposed CEP.

TRAVIS WAACK

Print / Signature
Manitowoc County

7/14/22
Date

NEXTera® ENERGY
POINT BEACH

August 25, 2022 L-2022-114

Theresa A. Becker, AEMT
Service Director
Mishicot Area Ambulance Service
511 E. Main St P.O. Box 385
Mishicot, WI 54228-0385

REQUEST FOR CONCURRENCE FROM HOSPITAL AND AMBULANCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Ms. Becker:

NextEra Energy Point Beach (NEPB) is enhancing the emergency preparedness program for Point Beach Nuclear Plant by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Point Beach Nuclear Plant.

Aurora Medical Center is accredited by The Joint Commission in compliance with 42 CFR 482.15, "Condition of Participation: Emergency preparedness". The hospital to maintain an emergency plan, which includes conducting two annual exercises/drills based upon the program's community-risk assessment. The proposed CEP will remove the "annual" frequency of the drill and allowing the risk assessment to determine the frequency. The CEP and associated letters of agreement with the hospital and ambulance will retain all other pre-arrangements including offering annual training. Point Beach Nuclear Plant will participate in Contaminated Medical Emergency Drills as requested by the hospital and/or ambulance.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. NEPB requests your review of, and concurrence with, the CEP and associated applicable Site-Specific Annex by September 8, 2022

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact Denny Smith. Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return.

Sincerely,

Denny Smith
EP Manager
(920)342.6095
denny.smith@nexteraenergy.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the applicable sections of the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. I concur with implementation of the proposed CEP.

Theresa A Beaker 9/30/22

Print / Signature Date

Mishicot Ambulance Service

Theresa A Beaker
Service Director

ST. LUCIE PLANT
CONCURRENCE LETTERS

July 22, 2022 L-2022-119

Kevin Guthrie
Director, Florida Division of Emergency Management
2555 Shumard Oak Blvd
Tallahassee, FL 32399

REQUEST FOR CONCURRENCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Mr. Guthrie:

Florida Power & Light Company (FPL) is enhancing the emergency preparedness programs for St. Lucie Power Station and Turkey Point Power Station by integrating its site-specific emergency plans into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including annexes for St. Lucie Power Station and Turkey Point Power Station. There will be several advantages and efficiencies benefitting the nuclear fleet and our agency partners brought about by adoption of the CEP.

The CEP and Site-Specific Annexes were developed consistent with NUREG-0654/FEMA-REP-1 Revision 2, *Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*. Applying NUREG-0654 Revision 2 guidance to the CEP takes advantage of lessons learned and improved technologies made available since 1980 when Revision 1 of NUREG-0654 was published.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. St. Lucie Power Station and Turkey Point Power Station requests your review of, and concurrence with, the enclosed CEP and associated applicable Site-Specific Annexes by August 5, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annexes, please contact Cynthia Cashwell (Turkey Point) or Peter Polfleit (St. Lucie).

Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return. For future correspondence, please contact Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Cynthia Cashwell
Regulatory Affairs Manager
Site EP Representative
(305) 246-1631
cynthia.cashwell@fpl.com

Peter Polfleit
EP Project Manager
Site Representative
(772) 467-4478
peter.polfleit@fpl.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annexes and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annexes. The requisite agency Radiological Emergency Preparedness (REP) documents will be updated to support CEP implementation. Accordingly, I concur with implementation of the proposed CEP.

Print / Signature
Florida Division of Emergency Management

8/3/2022
Date

FPL.

July 22, 2022

L-2022-117

Sally Waite
Emergency Management Director
Martin County
800 SE Monterey Rd
Stuart, FL 34994

REQUEST FOR CONCURRENCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Ms. Waite:

Florida Power & Light Company (FPL) is enhancing the emergency preparedness program for St. Lucie Power Station by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for St. Lucie Power Station. There will be several advantages and efficiencies benefitting the nuclear fleet and our agency partners brought about by adoption of the CEP.

The CEP and Site-Specific Annexes were developed consistent with NUREG-0654/FEMA-REP-1 Revision 2, *Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*. Applying NUREG-0654 Revision 2 guidance to the CEP takes advantage of lessons learned and improved technologies made available since 1980 when Revision 1 of NUREG-0654 was published.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. St. Lucie Power Station requests your review of, and concurrence with, the enclosed CEP and associated applicable Site-Specific Annex by August 5, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact Peter Polfleit.

Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return.

For future correspondence, please contact Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Peter Polfleit
EP Project Manager
Site Representative
(772) 467-4478
peter.polfleit@fpl.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. The requisite agency Radiological Emergency Preparedness (REP) documents will be updated to support CEP implementation. Accordingly, I concur with implementation of the proposed CEP.

Sally Waite
Print / Signature
Martin County

9-24-22
Date

July 22, 2022 L-2022-118

Rangel Guerrero
Emergency Management Director
St. Lucie County
15305 West Midway Rd
Ft Pierce, FL 34945

REQUEST FOR CONCURRENCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Mr. Guerrero:

Florida Power & Light Company (FPL) is enhancing the emergency preparedness program for St. Lucie Power Station by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for St. Lucie Power Station. There will be several advantages and efficiencies benefitting the nuclear fleet and our agency partners brought about by adoption of the CEP.

The CEP and Site-Specific Annexes were developed consistent with NUREG-0654/FEMA-REP-1 Revision 2, *Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.* Applying NUREG-0654 Revision 2 guidance to the CEP takes advantage of lessons learned and improved technologies made available since 1980 when Revision 1 of NUREG-0654 was published.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. St. Lucie Power Station requests your review of, and concurrence with, the enclosed CEP and associated applicable Site-Specific Annex by August 5, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact Peter Polfleit.

Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return.

For future correspondence, please contact Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Peter Polfleit
EP Project Manager
Site Representative
(772) 467-4478
peter.polfleit@fpl.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. The requisite agency Radiological Emergency Preparedness (REP) documents will be updated to support CEP implementation. Accordingly, I concur with implementation of the proposed CEP.

Print / Signature
St. Lucie County

08/05/2022
Date

August 2, 2022 L-2022-128

Chief Nate Spera
St. Lucie County Fire District
5160 NW Milner Dr.
Port St Lucie, FL 34983

REQUEST FOR CONCURRENCE FROM HOSPITAL AND AMBULANCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Mr. Spera:

Florida Power & Light (FPL) is enhancing the emergency preparedness program for St. Lucie Power Station by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for St. Lucie Power Station.

Lawnwood Hospital and Cleveland Clinic Martin Health are accredited by The Joint Commission in compliance with 42 CFR 482.15, "Condition of Participation: Emergency preparedness". The hospitals to maintain an emergency plan, which includes conducting two annual exercises/drills based upon the program's community-risk assessment. The proposed CEP will remove the "annual" frequency of the drill and allowing the risk assessment to determine the frequency. The CEP and associated letters of agreement with the hospitals and ambulance will retain all other pre-arrangements including offering annual training. St. Lucie Power Station will participate in Contaminated Medical Emergency Drills as requested by hospital(s) and/or ambulance service.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. St. Lucie Power Station requests your review of, and concurrence with, the CEP and associated applicable Site-Specific Annex by August 12, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact Peter Polfleit. Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return. For future correspondence, please contact Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Peter Polfleit
EP Project Manager
Site Representative
(772) 467-4478
peter.polfleit@fpl.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the applicable sections of the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. I concur with implementation of the proposed CEP.

Print / Sign
St. Lucie County Fire District

8-5-2022
Date

TURKEY POINT NUCLEAR GENERATING PLANT
CONCURRENCE LETTERS

July 22, 2022

L-2022-119

Kevin Guthrie
Director, Florida Division of Emergency Management
2555 Shumard Oak Blvd
Tallahassee, FL 32399

REQUEST FOR CONCURRENCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Mr. Guthrie:

Florida Power & Light Company (FPL) is enhancing the emergency preparedness programs for St. Lucie Power Station and Turkey Point Power Station by integrating its site-specific emergency plans into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including annexes for St. Lucie Power Station and Turkey Point Power Station. There will be several advantages and efficiencies benefitting the nuclear fleet and our agency partners brought about by adoption of the CEP.

The CEP and Site-Specific Annexes were developed consistent with NUREG-0654/FEMA-REP-1 Revision 2, *Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*. Applying NUREG-0654 Revision 2 guidance to the CEP takes advantage of lessons learned and improved technologies made available since 1980 when Revision 1 of NUREG-0654 was published.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. St. Lucie Power Station and Turkey Point Power Station requests your review of, and concurrence with, the enclosed CEP and associated applicable Site-Specific Annexes by August 5, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annexes, please contact Cynthia Cashwell (Turkey Point) or Peter Polfleit (St. Lucie).

Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return. For future correspondence, please contact Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Cynthia Cashwell
Regulatory Affairs Manager
Site EP Representative
(305) 246-1631
cynthia.cashwell@fpl.com

Peter Polfleit
EP Project Manager
Site Representative
(772) 467-4478
peter.polfleit@fpl.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annexes and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annexes. The requisite agency Radiological Emergency Preparedness (REP) documents will be updated to support CEP implementation. Accordingly, I concur with implementation of the proposed CEP.

Print / Signature
Florida Division of Emergency Management

8/3/2022
Date

July 20, 2022 L-2022-089

Dan Scarborough, MPA, FPEM
EM Planner, Office of Emergency Management
Miami-Dade Fire Rescue
9300 NW 41 Street
Doral, FL 33178

REQUEST FOR CONCURRENCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Dear Mr. Scarborough:

Florida Power & Light Company (FPL) is enhancing the emergency preparedness program for Turkey Point Power Station by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Turkey Point Power Station. There will be several advantages and efficiencies benefitting the nuclear fleet and our agency partners brought about by adoption of the CEP.

The CEP and Site-Specific Annexes were developed consistent with NUREG-0654/FEMA-REP-1 Revision 2, *Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*, with deviations. Applying NUREG-0654 Revision 2 guidance to the CEP takes advantage of lessons learned and improved technologies made available since 1980 when Revision 1 of NUREG-0654 was published.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. Turkey Point Power Station requests your review of, and concurrence with, the enclosed CEP and associated applicable Site-Specific Annex by August 5, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact Cynthia Cashwell.

Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return.

For future correspondence, please contact me or Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Cynthia Cashwell
Regulatory Affairs Manager
Site EP Representative
(305) 246-1631
cynthia.cashwell@fpl.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. The requisite agency Radiological Emergency Preparedness (REP) documents will be updated to support CEP implementation. Accordingly, I concur with implementation of the proposed CEP.

David Scarborough

Print / Signature
Office of Emergency Management
Miami-Dade Fire Rescue

8-12-2022

Date

July 20, 2022 L-2022-091

Mary Napoli
Senior Planner
Monroe County Emergency Management
490 63rd Street Ocean, Suite 150
Marathon, FL 33050

REQUEST FOR CONCURRENCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Dear Ms. Napoli:

Florida Power & Light Company (FPL) is enhancing the emergency preparedness program for Turkey Point Power Station by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Turkey Point Power Station. There will be several advantages and efficiencies benefitting the nuclear fleet and our agency partners brought about by adoption of the CEP.

The CEP and Site-Specific Annexes were developed consistent with NUREG-0654/FEMA-REP-1 Revision 2, *Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*, with deviations. Applying NUREG-0654 Revision 2 guidance to the CEP takes advantage of lessons learned and improved technologies made available since 1980 when Revision 1 of NUREG-0654 was published.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. Turkey Point Power Station requests your review of, and concurrence with, the enclosed CEP and associated applicable Site-Specific Annex by August 5, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact Cynthia Cashwell.

Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return.

For future correspondence, please contact me or Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Cynthia Cashwell
Regulatory Affairs Manager
Site EP Representative
(305) 246-1631
cynthia.cashwell@fpl.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. The requisite agency Radiological Emergency Preparedness (REP) documents will be updated to support CEP implementation. Accordingly, I concur with implementation of the proposed CEP.

Mary Napoli Digitally signed by Mary Napoli
Date: 2022.09.20 10:50:40 -04'00'

Print / Signature
Monroe County Emergency Management

Date

July 20, 2022 L-2022-103

Dan Scarborough, MPA, FPEM
EM Planner, Office of Emergency Management
Miami-Dade Fire Rescue
9300 NW 41 Street
Doral, FL 33178

REQUEST FOR CONCURRENCE FROM HOSPITAL AND AMBULANCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Mr. Scarborough:

Florida Power & Light (FPL) is enhancing the emergency preparedness program for Turkey Point Power Station by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Turkey Point Power Station.

Baptist Hospital of Miami and Mercy Hospital are accredited by The Joint Commission in compliance with 42 CFR 482.15, "Condition of Participation: Emergency preparedness". The hospitals are to maintain an emergency plan, which includes conducting two annual exercises/drills based upon the programs' community-risk assessment. The proposed CEP will remove the "annual" frequency of the drill and allowing the hospital's risk assessment to determine the frequency. The CEP and associated letters of agreement with the hospitals and ambulance will retain all other pre-arrangements including offering annual training. Turkey Point Power Station will participate in Contaminated Medical Emergency Drills as requested by the hospitals and/or ambulance.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. Turkey Point Power Station requests your review of, and concurrence with, the CEP and associated applicable Site-Specific Annex by August 5, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact Cynthia Cashwell. Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return. For future correspondence, please contact Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Cynthia Cashwell
Regulatory Affairs Manager
Site EP Representative
(305) 246-1631
cynthia.cashwell@fpl.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the applicable sections of the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. I concur with implementation of the proposed CEP.

DANNY CARDSO

Print / Signature
Office of Emergency Management
Miami-Dade Fire Rescue

08/19/22
Date

July 20, 2022 L-2022-102

Mercy Hospital
3663 South Miami Avenue
Miami, FL 33133
Attention: Ryan LeMasters

REQUEST FOR CONCURRENCE FROM HOSPITAL AND AMBULANCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Mr. LeMasters:

Florida Power & Light (FPL) is enhancing the emergency preparedness program for Turkey Point Power Station by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Turkey Point Power Station.

Mercy Hospital is accredited by The Joint Commission in compliance with 42 CFR 482.15, "Condition of Participation: Emergency preparedness". The hospital is to maintain an emergency plan, which includes conducting two annual exercises/drills based upon the program's community-risk assessment. The proposed CEP will remove the "annual" frequency of the drill and allowing the risk assessment to determine the frequency. The CEP and associated letters of agreement with the hospital and ambulance will retain all other pre-arrangements including offering annual training. Turkey Point Power Station will participate in Contaminated Medical Emergency Drills as requested by the hospital and/or ambulance.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. Turkey Point Power Station requests your review of, and concurrence with, the CEP and associated applicable Site-Specific Annex by August 5, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact Cynthia Cashwell. Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return. For future correspondence, please contact Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

Cynthia Cashwell
Regulatory Affairs Manager
Site EP Representative
(305) 246-1631
cynthia.cashwell@fpl.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the applicable sections of the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. I concur with implementation of the proposed CEP.

Print / Signature
Mercy Hospital

25AUG2022
Date

SEABROOK STATION
CONCURRENCE LETTERS

NEXTera® ENERGY SEABROOK

8 August, 2022 L-2022-093

Dawn Brantley, Acting Director
Massachusetts Emergency Management Agency
MEMA Headquarters
400 Worcester Road
Framingham, MA 01702

REQUEST FOR CONCURRENCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Dear Ms. Brantley:

NextEra Energy Seabrook (NES) is enhancing the emergency preparedness program for Seabrook Station by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Seabrook. There will be several advantages and efficiencies benefitting the nuclear fleet and our agency partners brought about by adoption of the CEP.

The CEP and Site-Specific Annexes were developed consistent with NUREG-0654/FEMA-REP-1 Revision 2, *Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*, with specific deviations. Applying NUREG-0654 Revision 2 guidance to the CEP takes advantage of lessons learned and improved technologies made available since 1980 when Revision 1 of NUREG-0654 was published.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. Seabrook Station requests your review of, and concurrence with, the enclosed CEP and associated applicable Site-Specific Annex by 10 August 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact David Currier.

Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return.

For future correspondence, please contact me or Noah Narut, Fleet Emergency Preparedness Manager at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

David Currier
EP Project Manager
Site Representative
(603) 773-7490
david.currier@nexteraenergy.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the information provided by NextEra and that the Commonwealth has submitted comments and questions on the proposed changes to the Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex. The requisite agency Radiological Emergency Preparedness (REP) documents will be updated as necessary to support CEP implementation. Accordingly, we concur with the emergency plan changes and will continue to consult with NextEra on the implementing procedures as they are developed.

Dawn Brantley

Print / Signature
Massachusetts Emergency Management Agency

08/17/2022

Date

NEXTera® ENERGY
SEABROOK

July 20, 2022 L-2022-094

Jennifer Harper, Director
NH Department of Safety
Homeland Security and Emergency Management
33 Hazen Drive
Concord, NH 03305

REQUEST FOR CONCURRENCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Dear Ms. Harper:

NextEra Energy Seabrook (NES) is enhancing the emergency preparedness program for Seabrook Station by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Seabrook. There will be several advantages and efficiencies benefitting the nuclear fleet and our agency partners brought about by adoption of the CEP.

The CEP and Site-Specific Annexes were developed consistent with NUREG-0654/FEMA-REP-1 Revision 2, *Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*, with specific deviations. Applying NUREG-0654 Revision 2 guidance to the CEP takes advantage of lessons learned and improved technologies made available since 1980 when Revision 1 of NUREG-0654 was published.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. Seabrook Station requests your review of, and concurrence with, the enclosed CEP and associated applicable Site-Specific Annex by August 1. 2022

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact David Currier.

Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return.

For future correspondence, please contact me or Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

David Currier
EP Project Manager
Site Representative
(603) 773-7490
david.currier@nexteraenergy.com

ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. The requisite agency Radiological Emergency Preparedness (REP) documents will be updated to support CEP implementation. Accordingly, I concur with implementation of the proposed CEP.

Jennifer L. Harper
Print / Signature

7/20/2022
Date

NH Homeland Security and Emergency Management

NEXTera ENERGY SEABROOK

July 20, 2022 L-2022-097

William Edwards, Fire Chief
Seabrook Fire Department
87 Centennial Street
P.O. Box 456
Seabrook, NH 03874

REQUEST FOR CONCURRENCE FROM HOSPITAL AND AMBULANCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Dear Chief Edwards:

NextEra Energy Seabrook (NES) is enhancing the emergency preparedness program for Seabrook Station by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Seabrook Station.

Exeter Hospital is accredited by DNV Healthcare in compliance with 42 CFR 482.15, "Condition of Participation: Emergency preparedness". The hospital is to maintain an emergency plan, which includes conducting two annual exercises/drills based upon the program's community-risk assessment. The proposed CEP will remove the "annual" frequency of the drill and allowing the risk assessment to determine the frequency. The CEP and associated letters of agreement with the hospital and ambulance will retain all other pre-arrangements including offering annual training. Seabrook Station will participate in Contaminated Medical Emergency Drills as requested by Exeter Hospital and/or Seabrook Fire Department.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. Seabrook Station requests your review of, and concurrence with, the CEP and associated applicable Site-Specific Annex by August 23, 2022.

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact David Currier. Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return. For future correspondence, please contact Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

David Currier
EP Project Manager
Site Representative
(603) 773-7490
NextEra Energy Seabrook, LLC

david.currier@nexteraenergy.com
ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the applicable sections of the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. I concur with implementation of the proposed CEP.

WILLIAM J EDWARDS FIRE CHIEF
Print / Signature
Seabrook Fire Department

8/23/2022
Date

NEXTera ENERGY SEABROOK

July 19, 2022 L-2022-098

Ray Leblanc, Safety
Emergency Management Director
Exeter Hospital
5 Alumni Drive
Exeter, NH 03833

REQUEST FOR CONCURRENCE FROM HOSPITAL AND AMBULANCE – PROPOSED FLEET COMMON EMERGENCY PLAN

Dear Mr. Leblanc:

NextEra Energy Seabrook (NES) is enhancing the emergency preparedness program for Seabrook Station by integrating its site-specific emergency plan into a Common Emergency Plan (CEP) together with the other nuclear plants that are part of the NextEra Energy Nuclear Fleet. The CEP will have four Site-Specific Annexes, including an annex for Seabrook Station.

Exeter Hospital is accredited by DNV Healthcare in compliance with 42 CFR 482.15, "Condition of Participation: Emergency preparedness". The hospital is to maintain an emergency plan, which includes conducting two annual exercises/drills based upon the program's community-risk assessment. The proposed CEP will remove the "annual" frequency of the drill and allowing the risk assessment to determine the frequency. The CEP and associated letters of agreement with the hospital and ambulance will retain all other pre-arrangements including offering annual training. Seabrook Station will participate in Contaminated Medical Emergency Drills as requested by Exeter Hospital and/or Seabrook Fire Department.

An implementation date for the CEP will be coordinated with your agency after the Nuclear Regulatory Commission (NRC) approves the proposed CEP, currently expected in mid-2023. Seabrook Station requests your review of, and concurrence with, the CEP and associated applicable Site-Specific Annex by August 3, 2022

Should you have any comments regarding the proposed fleet CEP and associated applicable Site-Specific Annex, please contact David Currier. Please document your agency's concurrence by executing the acknowledgement on page two of this letter and return. For future correspondence, please contact Noah Narut, Fleet Emergency Preparedness Coordinator at (561) 904-3365 or noah.narut@fpl.com.

Sincerely,

David Currier
EP Project Manager
Site Representative
(603) 773-7490
NextEra Energy Seabrook, LLC

david.currier@nexteraenergy.com
ACKNOWLEDGED AND AGREED

I acknowledge that I have reviewed the applicable sections of the proposed Common Emergency Plan (CEP) and its associated applicable Site-Specific Annex and attest that I had opportunities to provide and resolve comments on the proposed CEP and Site-Specific Annex. I concur with implementation of the proposed CEP.

Print / Signature
Exeter Hospital

08/03/2022
Date