



January 9, 2015

L-2015-011
10 CFR 50 Appendix E
10 CFR 72.4

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Re: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Radiological Emergency Plan - Revision 63

In accordance with 10 CFR 50 Appendix E, enclosed is one copy of the St. Lucie Plant Radiological Emergency Plan Revision 63. The plan, as revised, continues to meet the standards of 10 CFR 50.47(b) and the requirements of 10 CFR 50 Appendix E.

Enclosure 1 provides a summary of changes to the St. Lucie Plant - Radiological Emergency Plan - Revision 63.

Enclosure 2 is a copy of the St. Lucie Plant - Radiological Emergency Plan - Revision 63, Effective Date: December 19, 2014.

Please contact Eric Katzman at 772-467-7734 if there are questions regarding this revision.

Sincerely,

A handwritten signature in black ink that reads 'ES Katzman'.

Eric S. Katzman
Licensing Manager
St. Lucie Plant

ESK/tlt

Enclosures (2)

cc: USNRC, Director, Spent Fuel Project Office (without Enclosure 2)
USNRC, Regional Administrator, Region II (without Enclosure 2)

AX45
NRR

Enclosure 1

**St. Lucie Plant
Radiological Emergency Plan – Revision 63
Summary of Changes
(2 pages)**

**St. Lucie Plant
Radiological Emergency Plan, Revision 63
Change Summary**

Administrative Changes

Section 2.2.1 updates the Quality Control Supervisor to the current title of Nuclear Oversight Supervisor.

Figure 2-3 removes the Excellence Plan Director and Equipment Reliability Director from the organization chart since this position no longer exist. Neither are Emergency Response Organization positions.

Sections 2.4.1, 4.1.1, 4.6 and Figure 4.2, remove the reference of "Bell" for telephone system.

Section 4.6 removes the reference to the Intelligent Tandem Network (ITN) System. This term is no longer used. It is a built-in process that allows for connections between the telephone system and radio system that is already described in Section 4.6.

Significant Changes

Table 3-2.A, Process and Effluent Radiation Monitors Used for Accident Assessment and Initiating Conditions RU1, RA1, RS1, and RG1, are being updated based on the replacement of the Unit 1 Plant Vent Radiation Monitor and Unit 1 Fuel Handling Vent Radiation Monitor. Each monitor is being replaced via the Engineering Change Process. The new monitors have only two Noble Gas Channels versus three. The range on the new monitors is the same as the current models. The actual Emergency Action Levels remain the same.

Revised the Florida Nuclear Plant Emergency Notification Form to change the "No Action Sectors" to "Monitor and Prepare Sectors" to be in accordance with the revised protective action terminology in the federal regulations.

Revised Section 5, Response to Accident Conditions, for replacing the current dose assessment software Class "A" with Unified RASCAL Interface (URI). URI has been validated and verified by numerous sites. The site specific data for PSL has been verified. The URI software program consists of the following dose assessment methodologies:

Rapid Assessment: Used by the on-shift dose assessor to perform dose assessments with minimal information available. Rapid Assessment includes assessment methodologies using effluent monitors, containment high range area monitors and pre-determined fuel damage estimates.

**St. Lucie Plant
Radiological Emergency Plan, Revision 63
Change Summary**

Detailed Assessment: Used by the augmented emergency response staff in the EOF where a much greater degree of source term and plant status information will be available to perform more refined assessments. Detailed Assessment includes assessment methodologies using effluent monitors, containment high range area monitors, fuel damage estimates, effluent sample results, and field team results.

This software is WINDOWS based versus DOS and provides color-coded displays and print outs. The software: a) is also supported by a User's Group and vendor support unlike Class "A"; b) also supports dual unit and multi radiological release point dose assessment; c) has recently implemented this software at Point Beach; and d) will be implemented by the end of 2014 at Turkey Point.

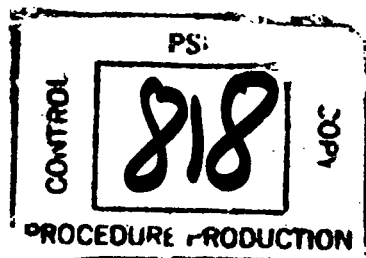
Revised Section 5, Response to Accident Conditions, to upgrade the Protective Action Recommendation process. The Protective Action Recommendation scheme is being revised due to changes in NUREG-0654, Supplement 3, using the endorsed guidance of NEI 12-10.

Enclosure 2

**St. Lucie Plant
Radiological Emergency Plan – Revision 63
Effective Date: December 19, 2014
(1 copy)**



FPL



ST. LUCIE PLANT

RADIOLOGICAL EMERGENCY PLAN

REVISION 63

Implementation Date

12/19/14

Initials _____

Approved by:

[Signature] (ACTING)
Site Vice President

Date: 12/17/14

Effective Date: 12/19/14

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1. GENERAL INFORMATION

1.1 Purpose

This Emergency Plan contains Florida Power & Light Company's plans for coping with radiological emergencies at the St. Lucie Plant, a facility with two commercial power reactors, Units 1 and 2 located in St. Lucie County, Florida.

The plan has been designed to preclude or mitigate the adverse health and safety effects of an emergency. Four general objectives have been considered in the development of this plan:

1. Timely and accurate assessment of off-normal or emergency conditions, and proper notification of responsible authorities.
2. Effective coordination of emergency actions among all organizations having a response role.
3. Continued assessment of actual or potential consequences both on-site and off-site.
4. Continuing maintenance of an adequate state of emergency preparedness.

1.2 Definitions

Annual - Occurring once per calendar year (January 1 through December 31).

Assessment Actions - Those actions taken during or after an emergency event to obtain and process information necessary to make decisions to implement specific emergency measures.

Company - Florida Power & Light Company (FPL)

Corporate Functional Area Manager (CFAM) - Emergency Preparedness - Emergency Preparedness is a key discipline that supports the FPL Fleet Excellence Plan. The CFAM is the highest authority in a specific functional area. The purpose of the CFAM is to provide fleet wide leadership and direction to position the applicable functional area as a top industry performer. The CFAM provides oversight of functional area programs, policies and processes utilizing assessment reports, performance indicators and peer groups to assess the health of programs, policies and processes. The CFAM works with the Site Functional Area Manager (SFAM), who is the site Emergency Preparedness Manager.

1. GENERAL INFORMATION (continued)

1.2 Definitions (continued)

Corrective Actions - Those measures taken to mitigate or terminate an emergency situation at or near the source of the problem in order to prevent an uncontrolled release of radioactive material or to reduce the magnitude of a release, e.g., shutting down equipment, firefighting, repair and damage control.

Emergency - Any off-normal event or condition which is classified into one of the four event categories of Table 3-1, Emergency Classification Table. A radiological emergency at the Plant is classified in accordance with Section 3, Emergency Classification System and Emergency Plan Implementing Procedure EPIP-01, Classification of Emergencies, as an (Notification of) Unusual Event, an Alert, a Site Area Emergency, or a General Emergency.

Emergency Action Levels (EALs) - Plant specific values (such as radiological dose rates, contamination levels, or specific instrument indications); states (such as containment integrity breached or confirmed hurricane warning); or combinations of values and states that may be used as thresholds for initiating specific emergency measures (i.e., designating a particular class of emergency, or initiating a particular protective action).

Emergency Control Officer (ECO) - A designated company officer or senior manager who will act as the chief nuclear officer. He/she will serve as the official spokesperson for the Nuclear Division.

Emergency Coordinator (EC) - The title assumed by the Shift Manager, until relieved by plant management through proper turnover, in the event of emergency conditions at the plant that trigger the Emergency Plan. The EC is responsible for notifying off-site authorities, emergency responders both inside and outside the company, and has full authority and responsibility for on-site emergency response actions. The EC is also responsible for Protective Action Recommendations during the initial stages of an emergency.

Emergency Information Manager (EIM) - A senior manager or designated member of the Corporate Communications Department who directs the operation of the Emergency News Center, develops news releases, and serves as a spokesperson for the company.

Emergency News Center (ENC) - A designated facility for use by the EIM and his/her staff in communicating with the news media. Public information officers from State, local, and federal response agencies would also function from the ENC.

1. GENERAL INFORMATION (continued)

1.2 Definitions (continued)

Emergency Operations Center (EOC) - Separate designated off-site facilities from which the St. Lucie County, Martin County and State of Florida Emergency Response Organizations will direct necessary assessment and protective actions for off-site areas.

Emergency Operations Facility (EOF) - A designated off-site facility from which FPL emergency activities including assessment, protective action recommendations, and coordination with state and county officials is conducted.

Emergency Operating Procedures (EOPs) - Specific procedures that provide instructions to guide plant operations to terminate or mitigate the consequences of an accident during potential or actual emergency situations.

Emergency Plan Implementing Procedures (EPIPs) - A set of emergency response procedures initiated and followed by the FPL Emergency Response Organization to implement the appropriate sections of the Emergency Plan, assess and classify the emergency, notify the appropriate authorities, and provide continuing response capability.

Emergency Planning Zone (EPZ) - That area, in which emergency planning for plume and/or ingestion exposure has been given consideration, in order to assure that prompt and effective actions can be taken, to protect the public in the event of a radiological emergency at the plant.

Emergency Response Organization (ERO) - That portion of the FPL organization assigned responsibilities upon initiation of the St. Lucie Plant Radiological Emergency Plan.

Emergency Security Manager (ESM) - A designated company manager, supervisor, or specialist who will have the responsibility for security aspects of the emergency response.

Emergency Technical Manager (ETM) - A designated company manager who will be responsible for providing technical support for emergency response actions.

Expanded Emergency Response Organization - A group of designated individuals from within the normal company organization who may cease normal activities and assume responsibility for augmenting FPL corrective, assessment and protective actions in the event of a radiological emergency at the plant.

1. GENERAL INFORMATION (continued)

1.2 Definitions (continued)

Governmental Affairs Manager (GAM) - A designated senior manager who has the responsibility for liaison between the Recovery Manager/ Emergency Control Officer and political officials of the State and Federal Governments during an emergency.

Hostile Action - 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.

Ingestion Exposure Pathway Emergency Planning Zone - That area, approximately 50 miles in radius from the center of the plant, for which plans are made to protect people from ingestion of food-stuffs and water contaminated by radioactive materials released from the plant.

National Oceanic and Atmospheric Administration (NOAA) - Governmental agency responsible for the forecasting of weather conditions. The National Weather Service (NWS) is a branch under NOAA that provides weather information and warning of severe weather situations, such as hurricanes and tornadoes.

Nuclear Division Duty Officer (NDDO) - A designated member of the FPL Nuclear Division staff with responsibility for responding to radiological emergencies or incidents on a 24 hours per day basis. The NDDO may carry out the functions of the ECO on an interim basis until the primary or an alternate can be notified.

Operational Support Center (OSC) - An on-site emergency response facility area where FPL Operations, Maintenance, Health Physics, Security, and Chemistry support personnel can report in an emergency and await assignment.

Plant - The St. Lucie Plant, Units 1 and 2.

Plume Exposure Pathway Emergency Planning Zone - That area, approximately 10 miles in radius from the center of the plant, for which detailed plans are made to protect people from exposure to a plume containing radioactive materials.

Protective Actions - Those measures taken for the purpose of preventing or minimizing radiological exposure to persons.

Quarterly - Occurring once per calendar quarter with quarters ending on March 31, June 30, September 30, and December 31 in a year.

1. GENERAL INFORMATION (continued)

1.2 Definitions (continued)

Radiation Controlled Area (RCA) - The area (within the Protected Area) wherein personnel access is restricted for the purpose of monitoring and controlling exposure to radiation.

REAC/TS - The Radiological Emergency Assistance Center/Training Site is operated by the Oak Ridge Associated Universities for the Department of Energy. REAC/TS serves as backup medical support for the St. Lucie Plant.

Recovery Actions - Those actions taken after an emergency to restore the plant as nearly as possible to its condition before the emergency.

Recovery Manager (RM) - A designated company officer or senior manager, who will have responsibility for the direction and control of the EOF. He/she has the authority to establish policy and to expend funds necessary to cope with emergency situations that trigger the implementation of the Emergency Plan.

Shift Communicator (SC) – a specific shift designated individual trained and qualified to assist the Shift Manager/Emergency Coordinator in the Control Room in making emergency off-site notifications, notifying the Emergency Response Organizations and performing other activities as directed.

Site - A general term referring to the location of the St. Lucie Nuclear Power Plant. Other terms related to the site are given below:

On-Site - A relative term meaning those persons, things, locations, etc., which are associated with the "site."

Off-Site - A relative term meaning those persons, things, locations, etc., which are not directly associated with the "site." For example, this term is used to describe the State and local government groups as "off-site" agencies.

Owner Controlled Area - That portion of FPL property surrounding and including the St. Lucie Nuclear Power Plant which is subject to limited access and control as deemed appropriate by FPL.

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.

State - The State of Florida.

1. GENERAL INFORMATION (continued)

1.2 Definitions (continued)

State Plan - The State of Florida Radiological Emergency Management Plan.

System Operations Power Coordinator - An FPL System Operations position which is staffed 24 hours/day for uninterrupted coordination of electrical power distribution. Communication is maintained with all FPL plants, service centers, and the General Office.

Technical Support Center (TSC) - A designated on-site facility that serves as a work area for use by technical and management personnel. The TSC provides technical support to Control Room personnel in the event of an emergency.

Technical Support Center Supervisor - The person assigned to supervise the personnel and direct the technical support activities in the TSC.

Thyroid Dose (CDE) - The thyroid exposure from inhaled radioiodines - Committed Dose Equivalent. Thyroid Dose (CDE) is used in Protective Action determination.

Total Dose (TEDE) - The total exposure from both external and internal (weighted) sources - Total Effective Dose Equivalent.

1.3 Scope and Applicability

The Emergency Plan describes Florida Power & Light Company's plans for responding to emergencies that may develop at the St. Lucie Plant. The plan has been prepared to meet the requirements of 10 CFR 50.47, 10 CFR 50.72, and 10 CFR 50 Appendix E. The purpose of this plan is to define and assign authority and responsibility in order to protect the health and safety of the public and plant personnel. This plan applies to all plant emergencies which have resulted in, or which increase the risk of the accidental release of radioactive materials to the environment.

Plans have been developed based upon knowledge of the potential consequences, timing, and release characteristics of a spectrum of events. Emergency Planning Zones have been defined. **Figure 1-1** illustrates the Plume Exposure Pathway Emergency Planning Zone for the St. Lucie Plant. The map (**Figure 1-1**) does not specifically include the area of ocean east of the plant. Since there are no islands in that direction, any evacuation of boating traffic would be addressed on a best effort basis. A key component of this plan is coordination with federal, state, and county authorities who contribute to the overall response effort. This plan outlines company responsibilities within the framework of the overall emergency response organization, and provides a conceptual basis for the development of the detailed procedures necessary to implement the plan.

1. GENERAL INFORMATION (continued)

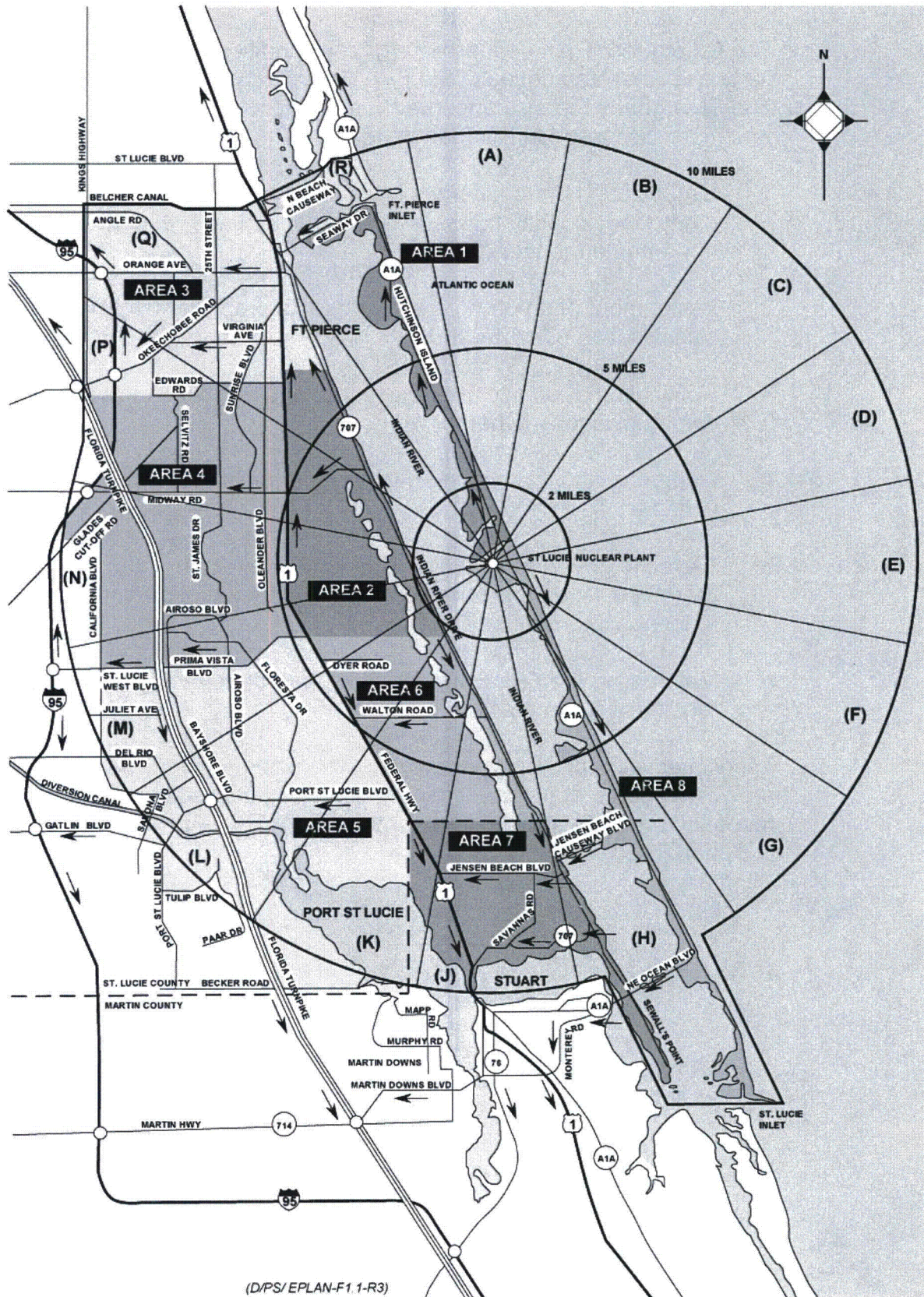
1.4 Concept of Operations

The Emergency Plan defines emergency conditions and delineates the responsibilities and duties of the FPL Emergency Response Organization. The Emergency Plan is concerned with the following basic activities, which are discussed in the Plan in detail:

1. Organization and resources adequate to detect the presence of an emergency condition, assess the condition, and respond in an appropriate manner (Chapter 2).
2. Assignment of an off-normal event to its proper emergency classification (Chapter 3).
3. Notification of off-site authorities, as required, and continuing communications (Chapter 4).
4. Gathering and interpreting data to determine appropriate actions (Chapter 5).
5. Assisting governmental agencies in the development of information for the public both in terms of preparatory education and emergency response information (Chapter 6).
6. Maintaining the FPL Emergency Preparedness Program in a state of readiness (Chapter 7).

Associated with this Emergency Plan are implementing procedures which provide a source of pertinent information and data required by the response organization during an emergency. These procedures are listed in Appendix F.

**FIGURE 1-1
PLUME EXPOSURE PATHWAY EMERGENCY PLANNING ZONE**



1. GENERAL INFORMATION (continued)

1.4 Concept of Operations (continued)

Off-normal events have been separated into the following four classifications of emergencies:

- A. Notification of Unusual Event
- B. Alert
- C. Site Area Emergency
- D. General Emergency

These four classes represent emergency conditions which trigger activation of emergency plans and procedures. When an emergency is declared in connection with one of these four classes, individuals assume new titles with special responsibilities.

Each emergency class is characterized by abnormal plant events detected by Control Room instrumentation and/or routine or directed surveillance activities.

The company's response to an emergency condition consists of an on-shift (immediate) response and an expanded (augmented) response Emergency Response Organization (ERO) which can readily adapt to an emergency condition as it develops. The immediate response phase encompasses the period of time and sequence of actions associated with the initial detection of an off-normal event, classification as an emergency, and activation of the Emergency Response Organization, if required. During this phase, the Shift Manager assumes responsibility as the Emergency Coordinator and initiates the following general activities:

- 1. Diagnosis of the emergency
- 2. Initiation of corrective actions
- 3. Classification of the emergency
- 4. Notification of appropriate FPL authorities
- 5. Notification of appropriate off-site authorities

1. GENERAL INFORMATION (continued)

1.4 Concept of Operations (continued)

During the expanded response phase, the Emergency Coordinator will assess the situation and expand, as necessary, the Emergency Response Organization. All available company resources (on-site and off-site) can be mobilized as needed during this period. State, county and federal response organizations can become fully operational, as required. Continuing corrective, assessment, and protective actions are underway as required.

Table 1-1 summarizes the sequence of actions taken during the phased response. **Figure 1-2** delineates the initial notification flow.

As discussed throughout this plan, FPL maintains adequate facilities and equipment for detecting, assessing, and responding to emergencies. Redundant means of communications among key response participants are maintained. FPL also maintains agreements that will provide emergency medical, rescue, or fire support on-site, if needed. The training program is designed to maintain the proficiency of the Emergency Response Organization.

The FPL individual in charge of on-site emergency response during the immediate and expanded response phases is the Emergency Coordinator. The senior company official involved in emergencies, with responsibility for policy and authority to expend funds, is the Recovery Manager. The Recovery Manager is also responsible for Emergency Operations Facility operation during the expanded response phase.

In St. Lucie and Martin Counties, the individual responsible during emergencies is the Chairperson, County Board of Commissioners or his/her designate (Director of County Department of Public Safety/Emergency Management). In both counties, the Chairperson, County Board of Commissioners, is responsible for direction and control during emergencies.

As indicated in Chapter 2 of the State Plan, the State Emergency Response Team (SERT) will operate from the State Emergency Operations Center in Tallahassee led by a Governor-appointed State Coordinating Officer (SCO), usually the Director of the Division of Emergency Management.

1. GENERAL INFORMATION (continued)

1.5 Supporting Plans and Agreements (continued)

Supporting plans and agreements are included in the Appendices of this plan. Additional material utilized in the preparation of the St. Lucie Plan are:

1. NUREG-0654, Rev. 1, FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in support of Nuclear Power Plants; November, 1980.
2. NUREG-0654, FEMA-REP-1, Rev. 1, Supplement 3, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants - Criteria for Protective Action Recommendations, November, 2011.
3. NUREG-0578, TMI-2 Lessons Learned Task Force: Status Report and Short-Term Recommendations; July, 1979.
4. NUREG-0737, Clarification of TMI Action Plan Requirements; November, 1980.
5. 10 CFR 20, Standards for Protection Against Radiation.
6. 10 CFR 50, Domestic Licensing of Production and Utilization Facilities.
7. 10 CFR 50.54 (hh)(1), Potential Aircraft Threat
8. EPA 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents; October 1991.
9. Reg. Guide 1.97, Revision 2, Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident, December, 1980.
10. NUREG-0728, Rev. 4, NRC Incident Response Plan (IRP), April 14, 2005.
11. NUREG/BR-0150, Vol. 1, Response Technical Manual (USNRC).
12. NUREG/CR-7002, Criteria For Development of Evacuation Time Estimate Studies
13. UFSAR - Unit 1, Section 13.3, Emergency Planning
14. UFSAR - Unit 2, Section 13.3, Emergency Planning
15. Fire Protection Plan (AP 1800022)
16. St. Lucie Security Plan

1. GENERAL INFORMATION (continued)

1.5 Supporting Plans and Agreements (continued)

17. Nuclear Energy Policy on Exposure Limits for Emergency Response Personnel, Revision to Policy Statement, Ltr. No. JNO-HP-94-056, 26 October, 1994.
18. On-Shift Staffing Analysis in accordance with 10 CFR 50, Appendix E, Section IV.A, Revision 0, December 2012.
19. KLD TR-533, St. Lucie Nuclear Power Plant, Development of Evacuation Time Estimates

**TABLE 1-1
TYPICAL SEQUENCE OF ACTIONS**

FPL RESPONSE

Detection of Off-Normal Conditions

- Individual identifies off-normal condition.
- Individual immediately notifies Shift Manager (SM).

Response Actions

- Shift Manager (SM) diagnoses condition and directs initial corrective action to control or mitigate the condition.
- Shift Manager (SM) classifies condition in accordance with plant procedures. If the condition is classified as an emergency, the SM implements the Emergency Plan and becomes the Emergency Coordinator (EC).
- The Emergency Coordinator (EC) mobilizes on-site response teams as necessary to assess and control the emergency.
- Emergency Coordinator (EC) initiates necessary protective actions for on-site personnel, and evaluates need for protective action recommendations for the general public.
- Emergency Coordinator (EC) notifies state and county in accordance with plant procedures.
- Shift Communicator (SC) makes notifications as requested by the Emergency Coordinator (EC).
- The Emergency Coordinator (EC) orders mobilization of the Emergency Response Organization (ERO) required for Alert classification or higher classification, in accordance with plant procedures.
- Emergency Coordinator (EC) notifies NRC via Emergency Notification System (ENS) communications link, in accordance with plant procedures.

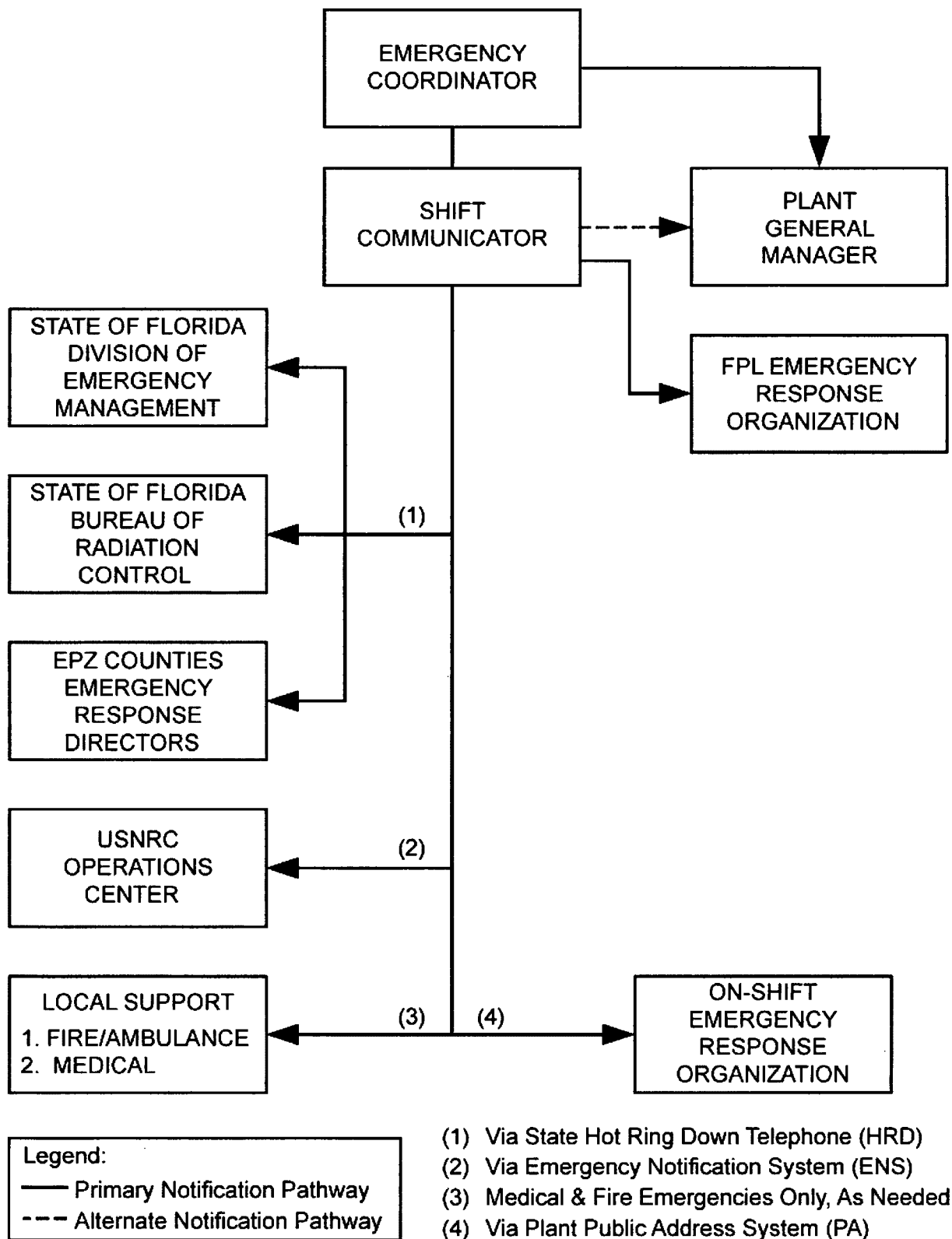
TABLE 1-1
TYPICAL SEQUENCE OF ACTIONS
(continued)

FPL RESPONSE (continued)

Expanded Response (as appropriate)

- The Technical Support Center (TSC) and the Operational Support Center (OSC) are staffed and declared operational assuming command and control of the emergency. This includes Protective Action Recommendations (PARs), notifications, and classification.
- The Emergency Control Officer (ECO) and Recovery Manager (RM) proceed to the Emergency Operations Facility (EOF). Recovery Manager (RM) notifies Emergency Coordinator (EC) when Emergency Operations Facility (EOF) is operational and assumes responsibility for recommending off-site protective actions and for communications with off-site organizations. The Emergency Coordinator (EC) can now devote his/her attention to control of the power plant.
- Recovery Manager (RM) (or designated response staff) receives and assesses periodic plant status, radiological data, and meteorological data, and continues communications and coordination with the state and county authorities.
- Recovery Manager (RM) continues assessment of conditions and control of FPL response until plant conditions stabilize then closes out with summary to off-site authorities (Alert or higher classification) or prepares for further long-term activities.
- Emergency Information Manager (EIM) proceeds to the Emergency Operations Facility (EOF) as appropriate and establishes communications with the Emergency Control Officer (ECO) and the Emergency News Center (ENC).

**FIGURE 1-2
INITIAL NOTIFICATION**



(D/PS/ EPLAN/Fig.1-2/Rev.36)

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES

2.1 Elements of the Emergency Response Organization

This section defines the primary components of the overall Emergency Response Organization and the relationship of each component to the total effort.

1. Florida Power & Light Company

Florida Power & Light Company (FPL) is the licensed operator of the St. Lucie Plant. As the licensed operator, FPL has developed this Emergency Plan (and associated procedures) to specify actions and provide a framework for emergency response. FPL's primary responsibilities include the following:

1. Diagnosis and corrective action.
2. Emergency classification.
3. Notification of appropriate outside response organizations and continuing communication.
4. Initiation of protective actions for employees and others on-site.
5. Recommendation of protective actions, for the public.
6. Mobilization of Florida Power & Light Company Emergency Response Organization.
7. Continuing data collection, dose projection, and assessment actions.
8. Owner Controlled Area recovery and re-entry.

The Florida Power & Light Company Emergency Response Capability is described in detail in Section 2.2 and illustrated in **Figure 2-1**, with minimum crew staffing illustrated in Table 2-1.

2. State of Florida Emergency Response Organization

As stated in State Plan, Appendix III, Section III, St. Lucie and Martin Counties are responsible for initial radiological emergency response operations. Should the scope of the emergency exceed the response capability of the risk counties, increased State action will be warranted. The Governor may transfer responsibility for overall emergency management to the State by issuing an Executive Order under the provisions of Section 252.35, Florida Statutes. Upon issuance of such an Executive Order, the risk, host and ingestion counties will continue to coordinate county response operations.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.1 2. State of Florida Emergency Response Organization (continued)

In accordance with Chapter 252, Part III, Florida Statutes, Florida has also adopted the Emergency Management Assistance Compact and Memoranda of Understanding between the Counties, other States and private organizations. These agreements provide mechanisms to obtain additional resources.

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 locations where State Plan copies are kept at the St. Lucie Plant appear in Appendix D.

The DEM's defined 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.

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 Bureau of Radiation Control

3. Radiological monitoring, off-site.
4. Off-site radiological exposure control and protective response recommendations for plume and ingestion pathway counties.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.1 2. State of Florida Emergency Response Organization (continued)

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.

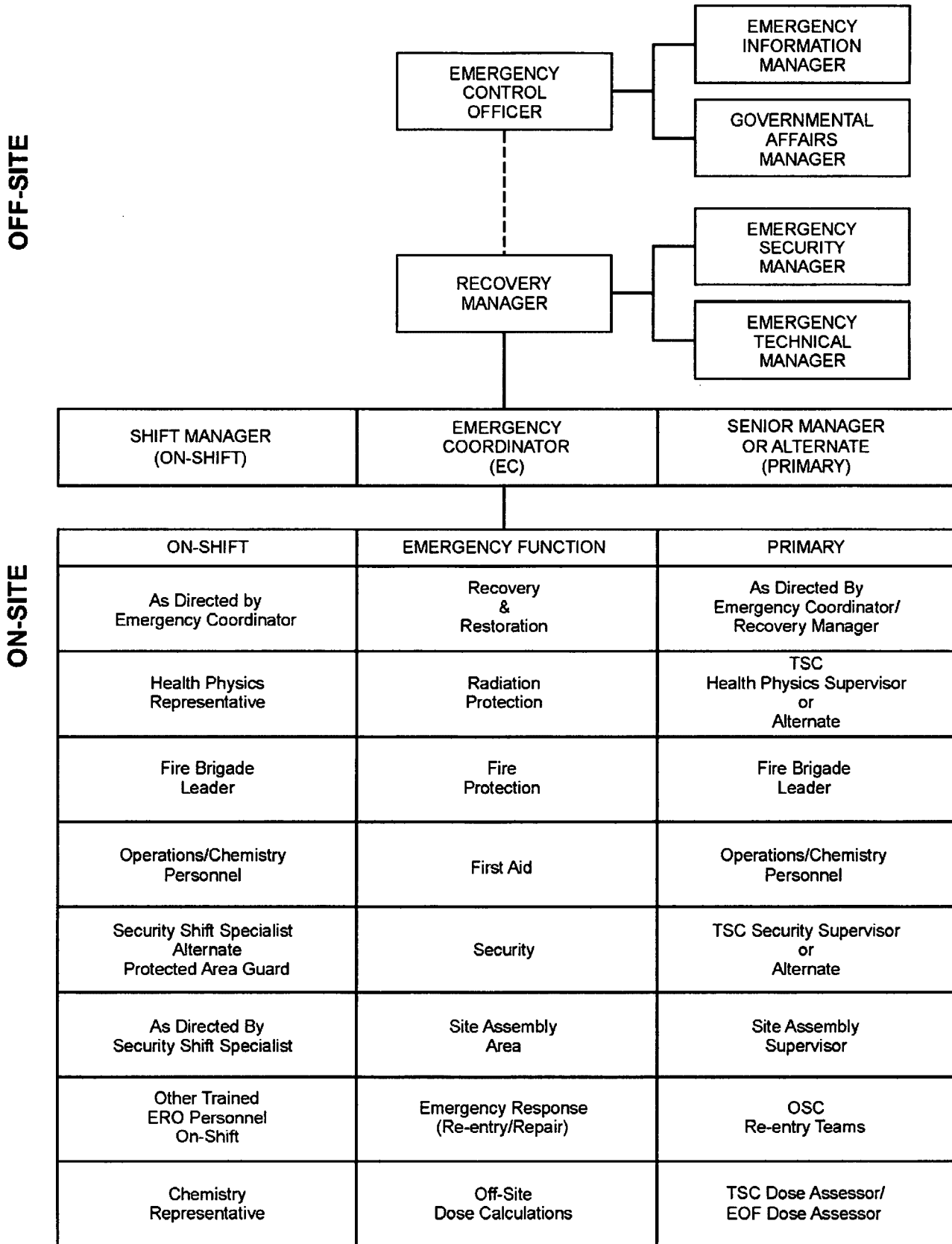
These services will be provided in accordance with the State Plan (Chapter 2).

Other State Agencies

As defined in the State Plan (Chapter 2), the DEM can request support as necessary from the following state agencies.

1. Department of Transportation
2. Department of Military Affairs
3. American Red Cross

**FIGURE 2-1
FPL EMERGENCY RESPONSE CAPABILITY**



(D/PS/EPLAN-F2.1-R37/Mf)

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES

2.1 3. County Emergency Response Agencies

Counties that fall within the plume exposure pathway EPZ include St. Lucie County and Martin County. Counties that fall within the ingestion pathway EPZ include St. Lucie County, Martin County, Indian River County, Brevard County, Palm Beach County, Osceola County, Okeechobee County, Highlands County and Glades County. The responsibility for hosting evacuees rests on Palm Beach, Indian River, and Brevard Counties.

The county emergency response agencies are described in Appendix III of the State Plan.

Chapter 10 of the State Plan addresses short term actions required in the plume exposure pathway EPZ and ingestion pathway EPZ. State agencies take the lead in controlling ingestion pathway response. Appendix III establishes procedures to protect citizens of St. Lucie County and visitors to the County from the effects of an accident at the St. Lucie plant. Section II A of Appendix III includes the St. Lucie County Radiological Emergency Organization. Section II B of Appendix III establishes procedures to protect citizens of Martin County and visitors to Martin County from the effects of an accident at the St. Lucie plant. Section II B of Appendix III describes the Martin County Radiological Emergency Organization. Section II C, II D, and II E to Appendix III include host plans for Indian River County, Palm Beach County, and Brevard County, respectively.

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. If time does not permit State involvement in initial decision making, the decision to take protective actions may be made by the Chairperson, Board of County Commissioners (for the respective affected county), or designated alternate. 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.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.1 3. County Emergency Response Agencies (continued)

Alerting, warning, and evacuation of populations will be in accordance with procedures prescribed in Sections VI and VII of Appendix III and in Chapters 5 and 11 of the State Plan. Sections IX and XII of Appendix III describe hosting responsibilities, including shelter location and operation, and evacuee registration, monitoring, and decontamination.

Responsibility for direction and control of emergency response of each county rests with the Chairperson, Board of County Commissioners, unless a disaster declaration under provisions of Florida Statutes, Chapter 252 is in effect. If a disaster has been declared, responsibility for direction and control rests with the Governor or authorized representative.

In accordance with Chapter 252, Part III, Florida Statutes, Florida has also adopted the Emergency Management Assistance Compact and Memoranda of Understanding between the Counties, other States and private organizations. These agreements provide mechanisms to obtain additional resources.

County Departments of Public Safety report to the Boards of County Commissioners. This is also true for other County resources, including the Sheriffs' Offices, Engineers' Offices, Fire Departments, Public Health Offices, School Boards, and other county organizations.

The Chairperson, Board of County Commissioners, has responsibility for overall emergency response planning. County Public Safety/Emergency Management Directors are responsible for actual plan development and updating. St. Lucie County, Palm Beach County, Martin County, Indian River County, and Brevard County each have an Emergency Operations Center (EOC).

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.1 3. County Emergency Response Agencies (continued)

St. Lucie and Martin County Public Safety/Emergency Management Directors

The Public Safety/Emergency Management Directors for St. Lucie and Martin Counties have the major responsibility for coordinating emergency operations including communicating with the County Board and State DEM. The County Public Safety Directors receive initial notification from Florida Power & Light Company simultaneously with DEM via the State's Hot Ring Down telephone for all radiological emergencies. The St. Lucie and Martin County Public Safety/Emergency Management Directors then have responsibility for initiating any necessary protective actions for off-site areas (including off-site evacuations) based upon available information from the FPL Emergency Coordinator, Recovery Manager, and Bureau of Radiation Control. The St. Lucie County and Martin County plans are a part of the State Plan. In addition to overall responsibility, the Public Safety Directors have responsibility for the following:

St. Lucie and Martin County Public Safety/Emergency Management Directors (continued)

1. Coordination of county 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

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.1 3. County Emergency Response Agencies (continued)

County Sheriffs (St. Lucie and Martin Counties)

At the request of the respective Public Safety/Emergency Management Director, the County Sheriffs can provide the following support services:

1. Law enforcement
2. Warning and evacuation (implementation)
3. Traffic control
4. Communications (support)
5. Rescue (support)

Other Local Agencies

As defined in the County plans, the Public Safety/Emergency Management Director can request support as necessary from the following:

1. County Engineer's Department
2. County Road Department
3. County Public Health Departments
4. Public School Boards
5. County Fire/Rescue Department

Other Local Agencies (continued)

St. Lucie County-Fort Pierce Fire District by agreement with Florida Power & Light Company (Appendix E) will respond to emergencies on-site upon request.

4. Federal Response Agencies

U.S. Nuclear Regulatory Commission

The Nuclear Regulatory Commission (NRC) will be notified via a dedicated telephone line (ENS) from the Control Room to the Operations Center in Maryland immediately after notification of the appropriate State or local agencies and not later than one hour after the time the licensee declares one of the Emergency Classes. NRC is the Coordinating Agency for incidents that occur at fixed nuclear facilities.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.1 4. Federal Response Agencies (continued)

U.S. Coast Guard

At the request of Florida Power & Light Company (on-site activities) and the DEM (off-site activities), the Coast Guard can provide rescue assistance in accordance with their general authority as described in Appendix E.

U.S. Department of Energy (DOE)

Upon request by the Department of Health, DEM can request that the DOE provide a Radiological Assistance Team to aid in evaluating radiological hazards. This support would be provided out of DOE's Savannah River Operations Office, Aiken, South Carolina. This provision is described in Chapter 9, Section IV, of the State Plan. DOE is responsible for coordinating the off-site radiological monitoring and evaluation activities of the Federal Government.

Federal Emergency Management Agency (FEMA)

FEMA has the responsibility for coordinating all non-technical response activities of the Federal Government off-site. They serve as the primary point of contact for requests for federal assistance from state and local officials and other federal agencies.

5. Private Sector Organizations

Institute of Nuclear Power Operations (INPO)

INPO maintains industry source lists for personnel and equipment which can be made available for support services during an emergency.

Westinghouse Electric

ABB/Combustion Engineering (CE), now Westinghouse Electric, is the Nuclear Steam Supply System vendor for the St. Lucie Plant. Upon request, Westinghouse Electric can supply emergency technical services and resources as provided by the Purchase Order listed in Appendix E.

URS Corporation (previously Washington Group)

URS Corporation is the Architect/Engineer for the St. Lucie Plant. Upon request, URS Corporation can supply emergency technical services as provided by the Purchase Order listed in Appendix E.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 Florida Power & Light Company Emergency Response Organization (ERO)

The purpose of this section is to describe FPL's Emergency Response Organization. The Emergency Response Organization is defined relative to the two phases of response and actions which are anticipated.

This approach recognizes that the organization will be a dynamic one, dependent upon response time and the severity of the emergency.

The "on-shift" response consists of shift operators, the plant duty shift and other trained plant personnel as available who are responsible for diagnosing the emergency and taking corrective actions. Along with the required shift operations personnel, the "expanded" response includes personnel necessary to man the TSC, OSC, and EOF. The ERO includes plant and corporate personnel who are available, as the emergency warrants, to assist in assessment actions, control, and stabilization.

1. Normal On-site Operating Organization

A generalized operating organization chart for St. Lucie Plant is shown in **Figure 2-3**. The specific plant organization chart is in plant procedures. The plant is staffed with qualified personnel prepared to take necessary actions to implement the Emergency Plan and to initiate the necessary immediate response actions.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 1. Normal On-site Operating Organization (continued)

During normal hours, the operating staff at the St. Lucie Plant consists of approximately 1100 people. During off-hours approximately 76 employees are on-site. Key operating positions are described below:

Vice President - St. Lucie Plant

The Vice President - St. Lucie Plant, reports to the Chief Nuclear Officer and has the direct responsibility for the operation and maintenance of the St. Lucie Plant in a safe, reliable, and efficient manner.

Plant General Manager

The Plant General Manager reports to the Vice President - St. Lucie Plant and is responsible for overall operation and control over those on-site activities necessary for safe operation and maintenance of the plant.

Operations Director

The Operations Director reports directly to the Plant General Manager and has the overall responsibility for directing the day-to-day operation of the plant. The Operations Director coordinates operations-related maintenance activities with the Maintenance Manager. The Operations Director is responsible for directing supervisory activities in the areas of Operations and Chemistry.

Assistant Operations Manager

The Assistant Operations Manager reports directly to the Operations Director. He/she has responsibility for directing the activities of the nuclear plant operating shifts, including the Shift Manager and Unit Supervisors. He/she holds an NRC Senior Reactor Operator License. He/she is also responsible for supervision of fuel handling operations.

Shift Manager (SM)

The Shift Manager reports directly to the Assistant Operations Manager. He/she is responsible for the actual operation of the nuclear plant and fuel handling operations on his/her assigned shift. He/she holds an active NRC Senior Reactor Operator License. He/she directs the activities of the personnel on his/her shift and is cognizant of maintenance activities being performed while on duty.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 1. Normal On-site Operating Organization (continued)

Unit Supervisor (US)

The Unit Supervisor reports directly to the Shift Manager. He/she holds an active NRC Senior Reactor Operator License. He/she directs the activities of the Operators on his/her assigned Unit and remains cognizant of all maintenance activities performed on that Unit while on duty.

Nuclear Watch Engineer (NWE)

The Nuclear Watch Engineer (NWE) reports directly to both Unit Supervisors. He/she is the operating shift foreman and is responsible for plant operations on his/her shift. The NWE directs the activities of non-licensed operators on his/her shift.

Chemistry Manager

The Chemistry Manager is responsible for administrative oversight of the Chemistry Control Program. He/she serves as a member of the St. Lucie Plant Emergency Response Organization.

Radiation Protection Manager

The Radiation Protection Manager is responsible for administrative oversight of the Radiation Protection Program. He/she serves as a member of the St. Lucie Plant Emergency Response Organization.

Reactor Engineering Supervisor

The Reactor Engineering Supervisor reports to the Engineering Manager. He/she supervises the Reactor Engineering Department. He/she is responsible for monitoring day-to-day reactor operation, nuclear physics testing, fuel burnup calculations, fuel shuffles during refuelings, and various administrative duties.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 1. Normal On-site Operating Organization (continued)

Maintenance Director

The Maintenance Director reports directly to the Plant General Manager. He/she supervises the Electrical Maintenance, Mechanical Maintenance, and Instrument and Control (I&C) Departments. He/she is responsible for the maintenance of mechanical, electrical, and I&C equipment in the nuclear units.

System Engineering Manager

The System Engineering Manager reports directly to the Engineering Director. He/she supervises general plant engineers and technicians.

Nuclear Oversight Supervisor

The Nuclear Oversight Supervisor reports directly to the Site Nuclear Oversight Manager. He/she supervises the Quality Control (QC) Department. He/she is responsible for directing the activities of the QC Inspectors who perform surveillance and inspection of nuclear safety related activities to monitor for technical specification and regulatory compliance.

Fire Brigade Leader

The Fire Brigade Leader reports to the SM, US or EC. The Fire Brigade Leader is a designated on-shift Operations Department individual who has the knowledge or has received sufficient training in plant safety-related systems to understand the effects of fire and fire suppressants on safe shutdown capability and advises the Control Room as required in the FSAR and 10 CFR 50, Appendix R.

On-site Review Group (ORG)

The On-site Review Group functions to advise the Plant General Manager on all matters related to nuclear safety. Specific responsibilities of the ORG are identified in the Quality Assurance Topical Report (QATR).

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 (continued)

2. On-shift Response Phase

Initiating Event (Unusual Event, Alert, Site Area Emergency or General Emergency)

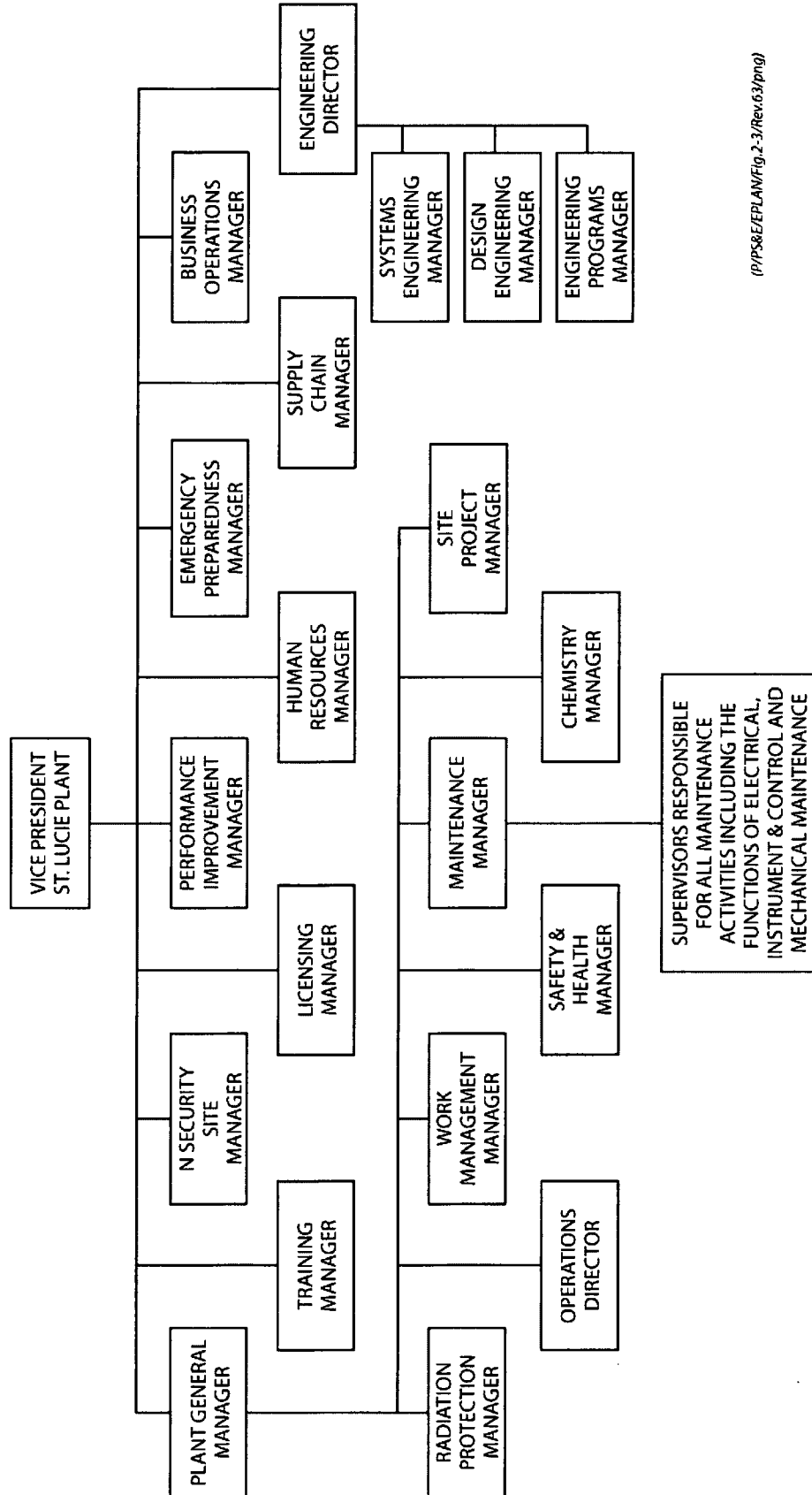
The emergency response is initiated by any individual who discovers an emergency condition. This person notifies the Shift Manager by the fastest means possible. This first phase is characterized by diagnosis and immediate action by the plant operators on shift.

Organization

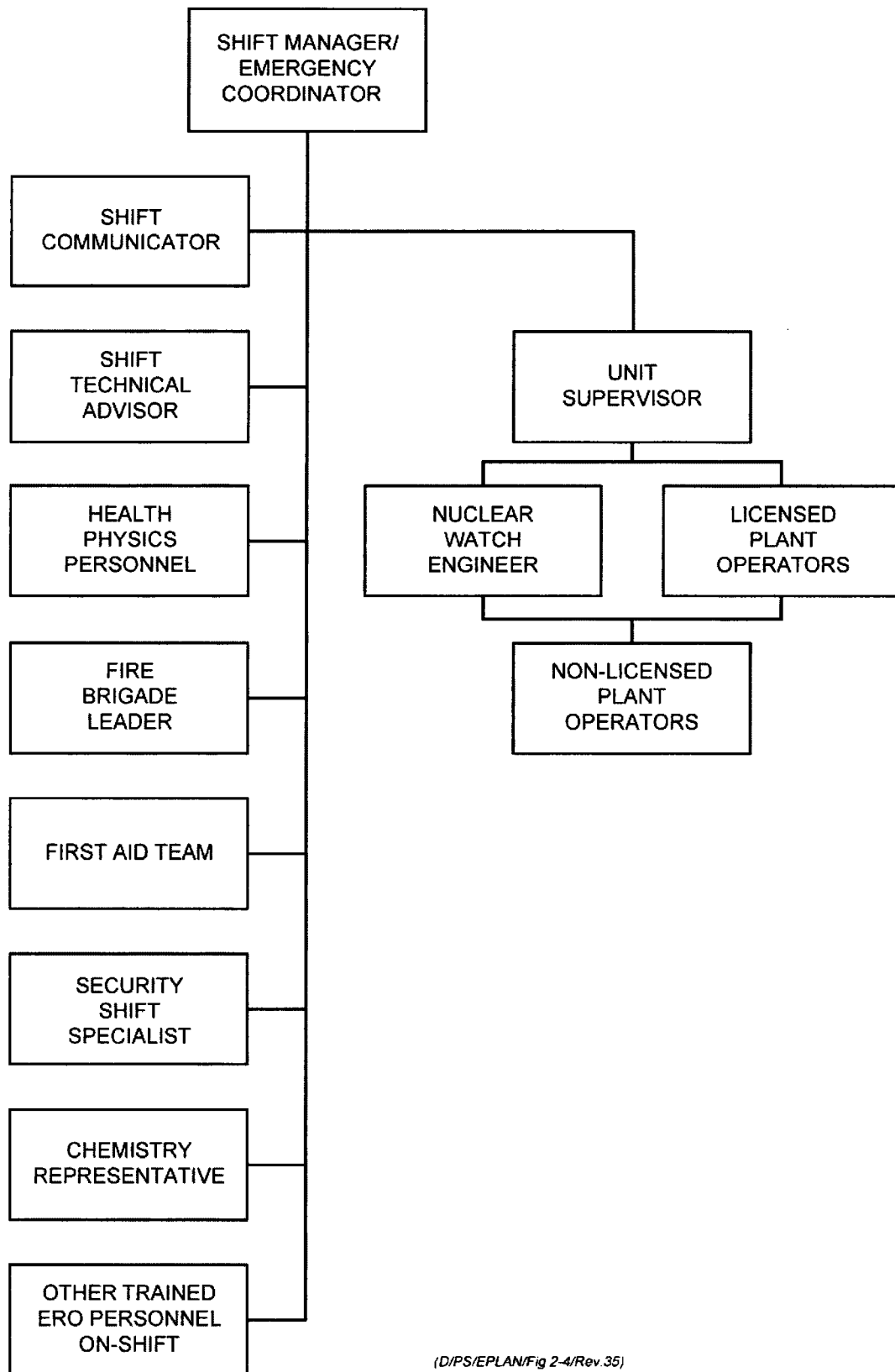
If the diagnosis indicates that the condition should be classified as an Unusual Event, Alert, Site Area Emergency, or General Emergency, the Shift Manager declares an emergency.

The Shift Manager becomes the Emergency Coordinator and, as such, directs the On-shift Emergency Response Organization. Initially, shift operators and the plant duty staff constitute the response organization. Emergency requirements take immediate precedence over normal operating responsibilities (as determined by procedure or at the direction of the Emergency Coordinator). The Plant Staff Emergency Assignments section describes the emergency services that can be provided initially by shift operators and the plant duty staff. **Figure 2-4** shows the On-shift Emergency Response Capability.

**FIGURE 2-3
ST. LUCIE PLANT NORMAL OPERATING ORGANIZATION**



**FIGURE 2-4
ON-SHIFT EMERGENCY RESPONSE CAPABILITY**



(D/PS/EPLAN/Fig 2-4/Rev.35)

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 2. On-shift Response Phase (continued)

Line of Succession

In the event the Shift Manager is incapacitated, the Emergency Coordinator will be (in order of succession):

1. Unit Supervisor (from the affected Unit)
2. Any other member of the plant staff with an active Senior Reactor Operator license.

It is the responsibility of the new Emergency Coordinator to ascertain the status of all Emergency Coordinator responsibilities prior to assumption of duty. The Emergency Coordinator can grant permission for watch relief, including his/her own, when it is safe in his/her judgement to do so.

The Plant General Manager, Operations Director, or Assistant Operations Manager should assume the Emergency Coordinator function from the Shift Manager following proper turnover. Other senior managers who have extensive plant or industry operating experience or knowledge and Emergency Coordinator qualifications may assume the Emergency Coordinator function.

Actions

The Emergency Coordinator initiates the following actions per plant procedures and using his/her judgement:

1. Orders corrective actions to bring the emergency under control.
2. Mobilizes the Emergency Response Organization.
3. Notifies the State Division of Emergency Management State Watch Office Duty Officer and County Public Safety Directors, in accordance with plant procedures.
4. Provides recommendations for off-site protective action as discussed in Chapter 5.
5. Notifies NRC via ENS immediately after notification of the appropriate State or local agencies and not later than one hour after the time the licensee declares one of the Emergency Classes.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 2. On-shift Response Phase (continued)

Delegation

The Emergency Coordinator shall not delegate the following responsibilities prior to the EOF being declared operational:

1. Classification of Emergencies
2. Decision to notify off-site organizations and the content of those notifications.
3. Recommendation of protective actions for the public (off-site).

The EC may delegate the completion of certain tasks, but is responsible to ensure that all tasks are completed and logged.

Turnover

Once the Emergency Operations Facility (EOF) is operational and proper turnover has been conducted, the Recovery Manager will assume responsibility for notification of off-site organizations and for recommending protective actions.

Plant Staff Emergency Assignments

A. On-shift Emergency Response Organization

1. The On-shift Emergency Response Organization is composed of operators, the plant duty staff and other trained ERO personnel on-shift. All are qualified in procedures and practices required for the performances of their duties as ERO members. The On-shift Emergency Response Organization takes action until the emergency condition is mitigated or until relieved.
2. Members of the On-shift Emergency Response Organization may consider themselves relieved only upon the specific instructions of the EC or appropriate facility supervisor. Merely knowing that a replacement is present does not constitute a release from emergency duties and responsibilities.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 2. On-shift Response Phase (continued)

B. Expanded Emergency Response Organization

1. The Expanded Emergency Response Organization is composed of operations personnel and ERO personnel to man the TSC, OSC, and EOF, as necessary.
2. With the knowledge of the appropriate facility supervisor, alternate ERO members may relieve their counterpart on the On-shift Emergency Response Organization.

C. Functional Areas of Emergency Activity

1. Plant Operations and Assessments of Operational Aspects

The Shift Manager (SM) on duty becomes the Emergency Coordinator (EC) in the event of an emergency. His/her normal alternate is the Unit Supervisor (US) from the affected unit. The SM and US positions are constantly manned. The Plant General Manager, Operations Director, Assistant Operations Manager, or another EC-trained person should assume the Emergency Coordinator function following proper turnover.

If the Technical Support Center (TSC) is activated, the EC should direct the on-site Emergency Response Organization (ERO) from the TSC. The SM will remain in the control room to control and monitor plant conditions.

2. Emergency Direction and Control

Emergency Coordinator as previously discussed.

3. Notification and Communication

Emergency Coordinator as previously discussed.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 2. C. Functional Areas of Emergency Activity (continued)

4. Radiological Accident Assessment and In-Plant Protective Actions

The primary TSC Health Physics Supervisor is the Radiation Protection Manager. He/she directs the radiological surveillance performed by the Health Physics technicians under the orders of the Emergency Coordinator. Prior to the availability of the TSC Health Physics Supervisor, the Health Physics technicians on-site will provide assistance to the EC in recommending protective actions based on radiological assessments.

The Chemistry Department performs off-site radiological dose assessment until the EOF is manned and operational and the Recovery Manager, through his/her staff, relieves them of this responsibility. The TSC Chemistry Supervisor will continue to monitor dose assessment results with personnel performing dose calculations in the EOF.

5. Plant System Engineering, Repair, and Corrective Actions and Support of Operational Accident Assessment

The Shift Technical Advisor will provide the initial technical support necessary for repair, corrective actions, and operational accident assessment.

6. Firefighting

The Fire Brigade provides first line response to a fire on-site. The Fire Brigade is under the direction of the Fire Brigade Leader. The St. Lucie County - Ft. Pierce Fire District can respond to fires on-site, if requested.

7. Rescue Operations and First Aid

A. Rescue Operations involve the First Aid Team and Health Physics personnel as necessary. Under the control of the Emergency Coordinator/TSC Health Physics Supervisor, entry to potentially hazardous areas will be made by the First Aid Team with assistance from Health Physics personnel. Upon notification of the injury, the team will respond per the Emergency Coordinator's instructions.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 2. C. Functional Areas of Emergency Activity (continued)

7. B. An Operations Department representative (either an operator or chemist), trained in first aid will act as the on-shift team leader for the First Aid Team. Operations Department personnel, trained in first aid, serve as the First Aid Team members and will be the primary care provider.

8. Access Control and Personnel Accountability

The TSC Security Supervisor will ensure personnel control and accountability. It is estimated that personnel accountability can be accomplished within 30 minutes following the declaration of an evacuation by the EC. Notification of occupants in the Owner Controlled Area, outside the Protected Area, will be accomplished by security sweeps.

9. Repair and Damage Control

Repair and damage control will be performed by assigned teams. These teams may be composed of members from any plant discipline and may be augmented by non-Florida Power & Light Company support personnel. Under the direction of the Emergency Coordinator or his/her designee, these teams are used to mitigate the consequences of the accident and to help restore the normal operation of the plant. Actions include, but are not limited to, the movement and set-up of portable shielding, tools, emergency equipment, the repair of equipment and the operation of plant systems.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 3. Expanded Response Phase

Initiating Action

This phase is initiated by the Emergency Coordinator (EC). Notification by the EC provides the basis for mobilization of the Florida Power & Light Company Emergency Response Organization (ERO) as well as state, local, and federal emergency response organizations. Activation of FPL personnel proceeds to the degree necessary, as determined by the EC, in response to the severity of the emergency.

In an Alert or higher emergency, the Technical Support Center (TSC) and the Operational Support Center (OSC) shall become operational. The Emergency Operations Facility (EOF) shall become operational in a Site Area Emergency and/or General Emergency. **Figure 2-5** shows the response organization that can develop during this period.

**TABLE 2-1
MINIMUM SHIFT CREW COMPOSITION FOR A TWO UNIT SITE
WITH SEPARATE CONTROL ROOMS**

<u>Position</u>	<u>Number of Individuals Required to Fill Position</u>
Shift Manager (SRO)	1
Unit Supervisors (SRO)	2 (1 per Unit)
Reactor Operators	4 (2 per Unit)
Shift Technical Advisor ¹	1
Auxiliary Operators/Fire Brigade ²	7
Shift Communicator	1
Radiation Protection Technicians	2
Rad/Chemistry Technician	1
Security	Per Security Plan

¹ A single, on-site STA position shall be manned unless the Shift Manager meets the qualifications for the STA as required by Technical Specification 6.3.1 or an individual on each unit with a Senior Reactor Operator's license meets the qualifications for the STA as required by Technical Specification 6.3.1.

² Fire Brigade staffing consists of a minimum of five (5) personnel; One (1) Fire Brigade Leader and four (4) Fire Brigade Members from Operations.

Note: The St. Lucie on-shift staffing analysis confirms the above positions are not assigned concurrent duties as specified in 10CFR50 Appendix E, Section IV.A.9.

TABLE 2-1
MINIMUM SHIFT CREW COMPOSITION FOR A TWO UNIT SITE
WITH SEPARATE CONTROL ROOMS
(continued)

SHIFT STAFFING AUGMENTATION AND EMERGENCY CAPABILITIES

NOTE

Augmented staffing capabilities are routinely tested to ensure timely response is maintained with respect to the goals identified in NUREG 0654.

<u>Major Functional Area</u>	Augmented Staffing Capabilities/ NUREG-0654 Goal	
	<u>30 min.</u>	<u>60 min.</u>
1. Notification/Communication	1	2
2. Radiological Accident Assessment and Support of Operational Accident Assessment/Protective Actions (In-Plant)		
A. Activate EOF (Sr. Mgt. Rep.)	---	1
B. Off-site Dose Assessment and Rad/Chem technician ¹	1 ²	1
C. Health Physics Technicians ¹	6 ³	6
3. Plant System Engineering, Repair and Corrective Actions		
A. Core/Thermal Hydraulics	1	---
B. Electrical (TSC)/ Mechanical (TSC)	---	1 1
C. Mechanical Maintenance/ Radwaste Operator	---	1 1
D. Electrical Maintenance	1	1
E. I&C Technician	1	---

¹ Combines all qualified individuals for similar functions from Table B-1 of NUREG-0654, Rev. 1

² On-shift

³ Two are on-shift

TABLE 2-2
FLORIDA POWER & LIGHT EMERGENCY RESPONSE ORGANIZATION
FUNCTIONS AND RESPONSIBILITIES

<u>RESPONSIBILITY</u>		
<u>Function</u>	<u>On-shift</u>	<u>Expanded</u>
Command and Control	Emergency Coordinator (Shift Manager)	Emergency Coordinator/ Recovery Manager
Warning	Emergency Coordinator	Emergency Coordinator/ Recovery Manager
Notification Communications	Emergency Coordinator	Emergency Coordinator/ Recovery Manager
Public Information	Emergency Coordinator	Emergency Information Manager
Accident Assessment	Emergency Coordinator (assisted by Shift Technical Advisor)	Recovery Manager (assisted by Emergency Technical Manager and his/her staff, Emergency Coordinator and TSC Technical Staff)
Fire	Fire Brigade Leader	Fire Brigade Leader
Rescue	Emergency Coordinator	Emergency Coordinator
Traffic Control (on-site)	Security Shift Specialist	TSC Security Supervisor
Emergency Medical Services	On-shift First Aid Team	On-shift First Aid Team
Transportation	Security Shift Specialist	Emergency Security Manager
Protective Response (on-site)	Emergency Coordinator	Emergency Coordinator/ TSC HP Supervisor
Radiological Exposure Control (on-site)	Emergency Coordinator (assisted by Health Physics Department representative)	TSC HP Supervisor
Radiological Dose Assessment	Emergency Coordinator (assisted by Chemistry Department representative)	Recovery Manager (assisted by Recovery Manager's Staff)

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 4. Key Emergency Operations Facility Positions

Emergency Control Officer (ECO)

The ECO is a designated company officer or senior manager who will act as the chief nuclear officer. He/she will serve as the official spokesperson for the Nuclear Division.

Recovery Manager (RM)

The RM is a senior manager who has knowledge of nuclear plant operations and design and who will be responsible for declaring the EOF operational and directing the Company's expanded emergency response organization in conjunction with the Emergency Coordinator. He/she has the authority to establish policy and to expend funds necessary to cope with any emergency situations that arise. The Recovery Manager reports initially to the EOF. The following specific responsibilities are assumed by the RM in the EOF:

1. To inform the Emergency Control Officer periodically of the on-site status of the emergency and immediately of any significant changes.
2. To provide support and data as necessary to the Emergency Coordinator.
3. To obtain information on diagnosis and prognosis of the emergency, estimates of radioactive releases, prevailing meteorological conditions, projected radiological exposures, and recommended off-site protective actions.
4. To assume from the EC, the responsibility for communicating such information to and coordinating with off-site organizations, and the issuance of Protective Action Recommendations (PARs) for the public.
5. To assure continuity of technical and administrative support, and material resources.
6. To request additional support from FPL and others as necessary.
7. To provide logistical support for emergency personnel (e.g., transportation, communications, temporary quarters, food, water and sanitary facilities in the field, and procurement of special equipment and supplies).

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 4. Key Emergency Operations Facility Positions

Emergency Information Manager (EIM)

The EIM is a senior manager or designated member of the Corporate Communications Department experienced in disseminating information to the public via the news media. The EIM operates from the Emergency Operations Facility. The EIM will have the following responsibilities:

1. To serve as a public spokesperson for FPL.
2. To disseminate available information from the ECO to the news media and to provide periodic updates.
3. To work with federal, state and county public information representatives to effect joint releases and public appearances.
4. To provide for dispatching a company representative to the St. Lucie County and Martin County EOCs, if appropriate.

Emergency Security Manager (ESM)

The ESM is a company supervisor, manager, or specialist with security experience and will be responsible to the RM for providing liaison with county law enforcement and rescue agencies. The ESM also provides for and manages security personnel at the EOF/ENC.

Emergency Technical Manager (ETM)

The ETM is a manager or senior engineer with detailed knowledge of nuclear plant design and who will be responsible for providing technical support and information regarding engineering design for the plant.

Governmental Affairs Manager (GAM)

The GAM is a member of the Governmental Affairs staff experienced in interfacing with political officials of local, state, and federal governments. He/she acts as liaison between the ECO and these political officials.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.2 4. Key Emergency Operations Facility Positions (continued)

Lines of Succession

Lines of succession for the Recovery Manager and Managers of the Expanded Emergency Organization are controlled by procedures which are maintained by the site Emergency Preparedness Manager.

Delegation

Delegation authority is controlled by procedure.

2.3 Emergency Response Support and Resources

This section describes the arrangements that Florida Power & Light Company has made for assistance to augment the Emergency Response Organization.

1. Response Organization Representatives

Florida Power & Light Company has provided facilities in the Emergency Operations Facility for representatives from FPL, state, local, and federal response organizations.

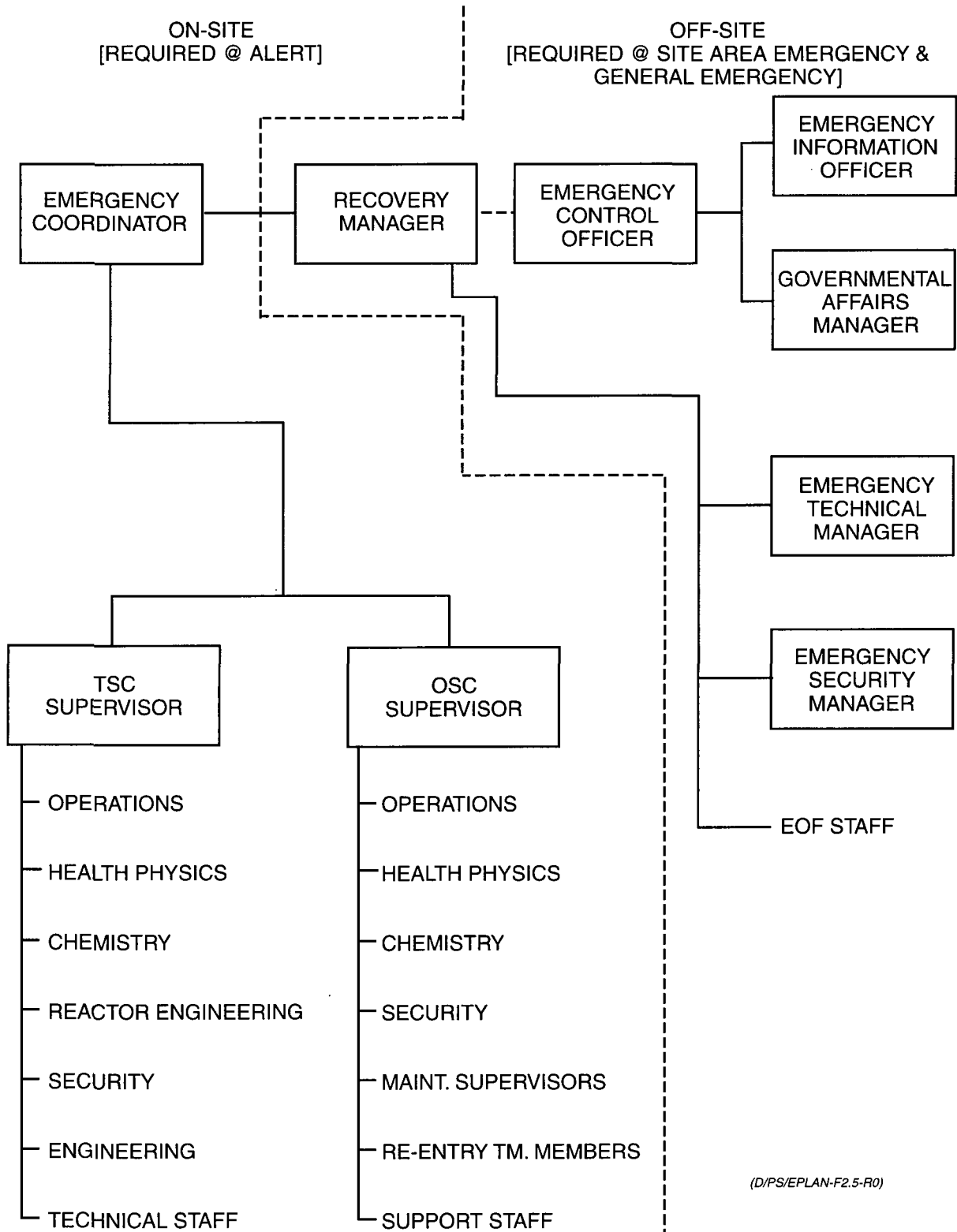
2. Radiological Laboratories

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. If required, the laboratory facilities at FPL's Turkey Point Plant can be used; appropriate arrangements will be made on an as-needed basis.

3. Additional Assistance

The Institute of Nuclear Power Operations (INPO) maintains industry source lists for personnel and equipment which can be made available for support services during an emergency. Additional technical assistance can also be obtained directly from the Nuclear Steam System Supply (NSSS) vendor (ABB/Combustion Engineering Co., now Westinghouse Electric).

**FIGURE 2-5
EXPANDED RESPONSE ORGANIZATION**



(D/PS/EPLAN-F2.5-R0)

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.3. 4. Support to Federal Assistance Teams

The Recovery Manager has the authority to request Federal assistance. It is expected that such assistance will be provided primarily by the NRC. Also, FEMA may send a representative to the EOF for near-site coordination of federal resources. It is expected that NRC personnel will begin to arrive at the site within 6 hours after declaration of a Site Area Emergency or General Emergency.

Requests for assistance from the Department of Energy's Savannah River Operations office in Aiken, South Carolina can be made by the State under the Federal Radiological Monitoring and Assessment Plan (FRMAP). Such requests are the responsibility of the Director of the Division of Emergency Management in consultation with the Department of Health.

Federal assistance teams can achieve access to the plant area through the Stuart, Florida airfield, approximately one half hour from the plant. The company may assign an individual to meet such assistance teams and to escort them to the appropriate facilities, if necessary.

Florida Power & Light has reserved adequate space and facilities for the staff of the NRC and FEMA at the EOF. Designated phone lines, workspace and support services (reproduction, office supplies, etc.) will be arranged through Florida Power & Light. Similar arrangements have been made in the TSC for the NRC. These provisions are routinely exercised and evaluated for adequacy by the NRC.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.4 Emergency Facilities and Equipment

This section describes the facilities and equipment that Florida Power & Light Company maintains in readiness for an emergency situation.

Figure 2-6 shows the locations of the on-site facilities.

1. Control Room

For any emergency response, the Control Room of the affected unit serves as the initial point of control. The Shift Manager (SM) stations himself in the affected unit's Control Room when he/she assumes the role of Emergency Coordinator (EC). The EC can leave the Control Room if necessary, after a proper turnover to a qualified alternate EC, to make a personal assessment regarding plant safety.

The Control Rooms are designed to remain tenable under accident conditions described in the Updated Final Safety Analysis Report (UFSAR). All plant related operations are directed from the Control Room. Nuclear plant instrumentation, including area and process radiation monitoring system instrumentation, is provided in the Control Room to give early warning of a potential emergency and to provide for continuing indication of an emergency situation. The Control Rooms contain the controls and instrumentation necessary for operation of the reactor under normal and emergency conditions.

A supply of radiological emergency equipment is maintained in each of the Control Rooms. **Table 2-3** provides an example list of emergency equipment maintained for the two Control Rooms and the Technical Support Center (TSC) use.

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.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.4 2. Technical Support Center (TSC)

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 located adjacent to the Unit 1 Control Room.

Activation of the Technical Support Center will be initiated by the Emergency Coordinator in the event of an Alert, Site Area Emergency or General Emergency. Arrangements have been made to staff the TSC in a timely manner.

The Technical Support Center contains pertinent records and drawings.

The Technical Support Center has an emergency communications network similar to the Control Rooms. The TSC also has the NRC Emergency Telecommunications System (ETS).

3. Operational Support Center (OSC)

The company maintains an on-site Operational Support Center (OSC) to serve as an assembly point for auxiliary operators, health physics technicians, maintenance personnel, and other plant personnel available to support the emergency response. Required staff will be assigned to appropriate activities by the Emergency Coordinator or his/her designee.

Equipment that can be used by personnel dispatched from the OSC is stored in the South Service Building. **Table 2-4** indicates the types of material and equipment stored there.

Activation of the OSC will be initiated by the Emergency Coordinator. The OSC will be activated and in operation for an Alert, Site Area Emergency or General Emergency. Arrangements have been made to staff the OSC in a timely manner.

The OSC is maintained in the large conference room on the second floor of the South Service Building. Telephone communications are maintained between the OSC and the Technical Support Center.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.4 4. Alternate Operational Support Center

In the event that the OSC becomes uninhabitable, the Emergency Coordinator will designate an alternate location in accordance with procedures.

5. Emergency Operations Facility (EOF)

The company maintains an Emergency Operations Facility from which evaluation and coordination of FPL activities related to an emergency can be carried out and from which FPL can provide information to federal, state, and local 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 the St. Lucie Plant. 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.

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. Essential, precalculated emergency data and pertinent reports and drawings are readily available.

The RM is responsible for declaring the EOF operational. The EOF is required to be in operation for a Site Area Emergency or General Emergency, but may go operational for an Alert. Arrangements have been made to activate the EOF in a timely manner.

The EOF serves as an alternate facility for the Technical Support Center and the Operations Support Center in a hostile action event at the station.

These facilities collectively have the following characteristics: the capability for communication with the emergency operations facility, control room and plant security; the capability to perform offsite notifications; 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.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.4 6. Emergency News Center (ENC)

An Emergency News Center (ENC) is provided to allow the news media access to information from the Emergency Operations Facility. The Emergency Information Manager will designate an individual to supervise the ENC. The ENC is co-located with the EOF (Midway Road/I-95 intersection).

FIGURE 2-6
ST. LUCIE PLANT ON-SITE EMERGENCY FACILITIES LOCATION MAP

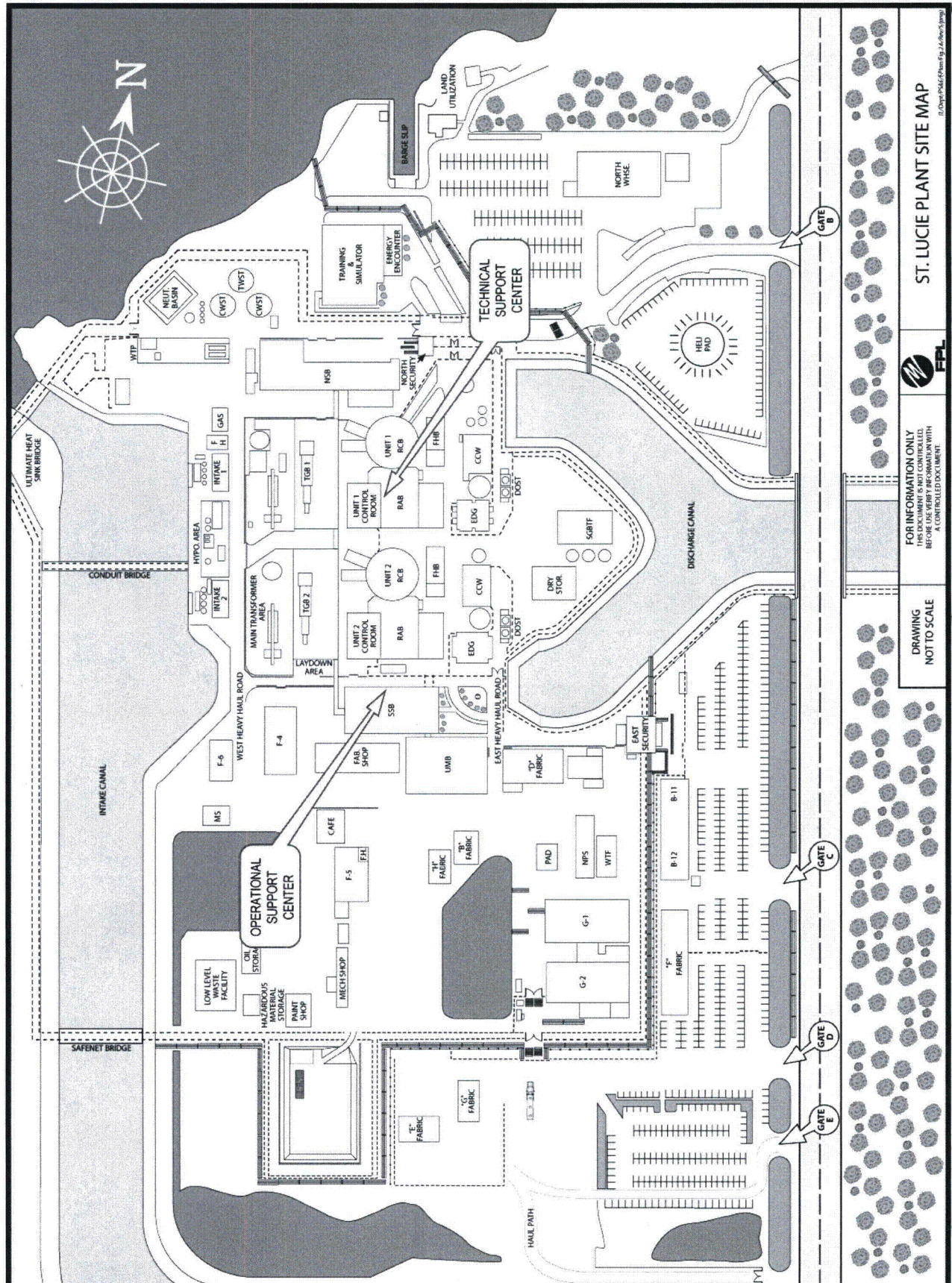


TABLE 2-3
RADIOLOGICAL EMERGENCY EQUIPMENT
FOR CONTROL ROOMS AND TSC

Unit 1 Control Room/TSC Storage Locker

1. Self Contained Breathing Apparatus
2. Pocket Dosimeters / Electronic Personnel Dosimeters (EPDs)
3. Dosimeter Charger
4. TLDs
5. Coveralls
6. Hoods
7. Gloves
8. Shoe Covers
9. Full Face Respirators and Filters
10. Portable Count Rate Instrumentation
11. Portable Dose Rate Instrumentation
12. Contamination Smears and Envelopes
13. Radiation Tape/Rope
14. Radiological Signs
15. Step-Off Pads
16. Plastic Bags

Unit 2 Control Room Storage Locker

1. Self Contained Breathing Apparatus
2. Pocket Dosimeters / Electronic Personnel Dosimeters (EPDs)
3. Dosimeter Charger
4. TLDs
5. Coveralls
6. Hoods
7. Gloves
8. Shoe Covers
9. Full Face Respirators and Filters
10. Portable Count Rate Instrumentation
11. Portable Dose Rate Instrumentation
12. Contamination Smears and Envelopes
13. Radiation Tape/Rope
14. Radiological Signs
15. Step-Off Pads
16. Plastic Bags

TABLE 2-4
RADIOLOGICAL EMERGENCY EQUIPMENT
FOR THE OPERATIONAL SUPPORT CENTER

1. Coveralls
2. Shoe Covers
3. Hoods
4. Gloves
5. Full Face Respirators and Filters
6. Self Contained Breathing Apparatus
7. Pocket Dosimeters / Electronic Personnel Dosimeters (EPDs)
8. Dosimeter chargers
9. TLDs
10. Portable count rate instrumentation
11. Portable dose rate instrumentation
12. Radiological signs
13. Contamination smears and envelopes
14. Flashlights
15. Survey maps
16. Writing materials
17. Log Book
18. Decontamination kits
19. Radiological tape/rope
20. Selected procedures
21. Waste storage bags
22. Assorted batteries

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.4 7. St. Lucie County Emergency Operations Center

The St. Lucie County EOC will be the point from which county response activities will be controlled. The facility is located at 15305 W. Midway Rd., Ft. Pierce, Florida. Communications include Hot Ring Down (HRD) phone, EMnet (Satellite Communications System), teletype, police department and fire department networks, and commercial telephone.

8. Martin County Emergency Operations Center

The Martin County EOC will be the point from which county response activities will be controlled. This facility is located at 800 S.E. Monterey Road, Stuart, Florida. Communications include Hot Ring Down (HRD) phone, EMnet (Satellite Communications System), teletype, police department and fire department networks, and commercial telephone.

9. Florida State Emergency Operations Center (State Watch Office)

The State's initial response comes from the State Emergency Operations Center (EOC) in Tallahassee. Initial notification goes to the State Watch Office (SWO) located in the State EOC. The location is 2555 Shumard Oak Boulevard, Tallahassee, Florida. Communications include Hot Ring Down (HRD), EMnet (Satellite Communications System), teletype and telephone. This facility is manned 24 hours a day by a duty officer.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.5 Medical and Health Support

This section describes the agreements and provisions that Florida Power & Light Company has made for emergency medical support.

1. Plant First-Aid Facilities

The First-Aid Rooms on the ground floor of the Auxiliary Buildings are provided with first-aid supplies. The medical supplies in the First-Aid Rooms are checked on a two month basis and replenished as necessary. In addition, standard 24-unit First-Aid Kits are maintained at numerous locations throughout the St. Lucie Plant. The First-Aid Kits are checked once every two months and replenished as necessary. A commercial First-Aid Kit is maintained in the Site Assembly Station.

Personnel decontamination washrooms and shower rooms are provided on the ground floor of the Auxiliary Buildings. Accepted decontamination practices will be employed on-site and are described in a Health Physics procedure.

Life endangering injuries such as extensive burns, serious wounds or fractures shall receive prompt medical attention at off-site support medical facilities. Personnel with injuries involving radiation or radioactive contamination can also be handled by these off-site support medical facilities. The off-site support medical facilities are Lawnwood Regional Medical Center in Ft. Pierce, Fl., and Martin Memorial Medical Center in Stuart, Fl.

Both of these medical facilities are equipped and staffed with physicians and nurses capable of treating a contaminated injured individual(s). The physicians will provide for medical examinations, treatment, and laboratory services for those employees and other persons, designated by Florida Power & Light Company, who have been involved in a radiation accident.

The patient receiving areas are equipped for patient decontamination and the performance of emergency medical procedures for life-saving purposes. Additionally, these facilities have intensive care units available for the treatment of decontaminated radiation accident casualties or persons who have received only internal radiation exposure. Both facilities are available on a 24-hour basis.

2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES (continued)

2.5 Medical and Health Support (continued)

1. Plant First-Aid Facilities (continued)

Backup Facility

A letter of agreement between the Oak Ridge 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 U.S. 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.

2. Transportation of Injured Personnel

St. Lucie County-Ft. Pierce 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.

3. Communications

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).

3. EMERGENCY CLASSIFICATION SYSTEM

The system which has been adopted for categorizing off-normal events or conditions at the Plant has four classes. In order of increasing severity, these are: Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency.

3.1 Notification of Unusual Event

Events are in process 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.

1. Assess and respond as directed by the Emergency Coordinator.
2. Report the Unusual Event to off-site authorities (FPL and non-FPL) in accordance with plant procedures.
3. Provide plant status updates in accordance with plant procedures.
4. Close out by verbal summary to off-site authorities, or escalate to a higher class.

3.2 Alert

Events are in process 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 limited to small fractions of the EPA Protective Action Guideline exposure levels.

FPL actions in response to this category will be:

1. Assess and respond as directed by the Emergency Coordinator.
2. The Emergency Coordinator will augment resources by activating the on-site Technical Support Center and Operational Support Center.
3. Report the Alert status to off-site authorities (FPL and non-FPL) in accordance with plant procedures.
4. Dispatch monitoring teams as directed by the TSC Health Physics Supervisor.
5. Provide periodic plant status updates in accordance with plant procedures, typically every sixty minutes or upon significant change in plant conditions.

3. EMERGENCY CLASSIFICATION SYSTEM (continued)

- 3.2 6. Provide periodic meteorological assessments in accordance with plant procedures if releases are anticipated or occurring. If releases are occurring, provide dose estimates for actual releases.
7. Close out by verbal summary to off-site authorities, followed by a written summary within 24 hours, or escalate to a higher class.

3.3 Site Area Emergency

Events are in process or have occurred which involve an 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 Protective Action Guideline exposure levels beyond the site boundary.

FPL actions in response to this category will be:

1. Assess and respond as directed by the Emergency Coordinator.
2. Augment resources as necessary by activating the on-site Technical Support Center, the on-site Operational Support Center, and the Emergency Operations Facility.
3. Report the Site Area Emergency status to off-site authorities (FPL and non-FPL) in accordance with plant procedures.
4. Dispatch monitoring teams as directed by the TSC Health Physics Supervisor.
5. Provide periodic plant status updates in accordance with plant procedures, typically every sixty minutes or upon significant change in plant conditions.
6. Provide periodic meteorological assessments in accordance with plant procedures.
7. Provide release and dose projections based on available plant and meteorological information and foreseeable contingencies.
8. Close out or recommend a change in emergency class when appropriate by briefing off-site authorities.
9. Submit a brief written summary to off-site authorities within 24 hours after closing out the emergency.

3. EMERGENCY CLASSIFICATION SYSTEM (continued)

3.4 General Emergency

Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or HOSTILE ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.

FPL actions in response to this category will be:

1. Assess and respond as directed by the Emergency Coordinator.
2. Augment resources by activating the on-site Technical Support Center, the on-site Operational Support Center, and the Emergency Operations Facility.
3. Report the General Emergency status to off-site authorities (FPL and non-FPL) in accordance with plant procedures.
4. Dispatch monitoring teams as directed by the TSC Health Physics Supervisor.
5. Provide periodic plant status updates in accordance with plant procedures, typically every sixty minutes or upon significant change in plant conditions.
6. Provide periodic meteorological assessments in accordance with plant procedures.
7. Provide release and dose projections based on available plant and meteorological information and foreseeable contingencies.
8. Provide off-site protective action recommendations to the State DEM.
9. Close out or recommend a reduction in emergency class when appropriate by briefing off-site authorities.
10. Submit a brief written summary to off-site authorities within 24 hours after closing out the emergency.

3. EMERGENCY CLASSIFICATION SYSTEM (continued)

3.5 Emergency Action Levels

The Shift Manager (SM) uses the Emergency Action Levels (EALs) to evaluate plant conditions requiring declaration of an Emergency Class and initiation of the Emergency Plan. The EALs, listed in **Appendices A, B and C**, are grouped into Recognition Categories depending on the nature of the initiating condition and the impact on plant operation and safety. As the condition(s) of the plant degrade(s), increasing Emergency Action Levels are reached resulting in a higher (greater severity) class of emergency being declared. Fifteen (15) minutes should not be exceeded for assessing and classifying an emergency once indications (Emergency Action Levels (EALs) / thresholds) are available to Plant Operators that an Initiating Condition (IC) has been met and/or exceeded.

For EALs that are time-based, a prescribed assessment period is provided. It is to be acknowledged that the condition described in the EAL has been met if the stated time period elapsed. There is not an additional 15 minute assessment period.

Tables 3-2 and 3-3 contain listings of Process and Effluent Monitors and Area Radiation Monitors that may be used to initiate emergency actions. These tables contain information regarding the type of monitor, range of the instruments, and typical setpoints (actual setpoints are defined by procedure).

Table 3-4 contains a listing of non-radiological monitors, meters, or gauges that may be used to initiate emergency actions. This table contains information regarding the parameter measured and the range of the monitor, meter, or gauge.

3.6 Hostile Action

An act toward a Nuclear Power Plant (NPP) or its personnel that includes the use of violent force to destroy equipment, takes hostages, and/or intimidates 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. Other acts that satisfy the overall intent may be included. HOSTILE ACTION should not be construed to include acts of civil disobedience or felonious acts that are not part of a concerted attack on the NPP. Non-terrorism-based EALs should be used to address such activities, (e.g., violent acts between individuals in the owner controlled area).

3.7 Hostile Force

One or more individuals who are engaged in a determined assault, overtly or by stealth and deception, equipped with suitable weapons capable of killing, maiming, or causing destruction.

TABLE 3-2A
ST. LUCIE UNIT 1
PROCESS AND EFFLUENT RADIATION MONITORS USED FOR ACCIDENT ASSESSMENT

<u>MONITORS</u>	<u>NUMBER (PER UNIT)</u>	<u>TYPE (1)</u>	<u>LOCATION</u>	<u>CONTROL FUNCTION</u>	<u>RANGE OF MEASUREMENT</u>			<u>TYPICAL HIGH ALARM SETPOINT</u>
a. Steam Generator Blowdown	2	SSL	RAB	Close S/G blowdown and sample valves FCV-23-3, 5, 7, 9	1 x 10 ¹ to 1 x 10 ⁶ CPM			1 x 10 ⁴ CPM
b. Condenser Air Ejector	1	SSG	Turbine Bldg.	NONE	1 x 10 ¹ to 1 x 10 ⁶ CPM (2)			7.5 x 10 ¹ CPM
c. Fuel Handling Building Stack	1	NGM with low & high range gas channels	FHB Roof	NONE	1 x 10 ⁻⁷ to 1 x 10 ⁻¹ µCi/cc 1 x 10 ⁻⁴ to 1 x 10 ⁵ µCi/cc	G G	(low) (high)	1.51 x 10 ⁻³ µCi/cc 3.2 x 10 ¹ µCi/cc
d. Plant Stack	1	NGM with low & high range gas channels	RAB Roof	NONE	1 x 10 ⁻⁷ to 1 x 10 ⁻¹ µCi/cc 1 x 10 ⁻⁴ to 1 x 10 ⁵ µCi/cc	G G	(low) (high)	1.42 x 10 ⁻³ µCi/cc 3.24 x 10 ¹ µCi/cc
e. ECCS Area Ventilation Exhaust	1/train	PIG with medium & high range gas channels	RAB Elev. 43'	NONE	1 x 10 ¹ to 1 x 10 ⁶ CPM 1 x 10 ¹ to 1 x 10 ⁶ CPM 1 x 10 ⁻⁷ to 1 x 10 ⁻¹ µCi/cc 2.5 x 10 ⁻² to 4 x 10 ² µCi/cc 1 x 10 ⁻¹ to 1 x 10 ⁵ µCi/cc	P I G G G	(3) (3) (low) (medium) (high)	1 x 10 ⁴ CPM 1 x 10 ⁴ CPM 5 x 10 ⁻⁴ µCi/cc 2.5 x 10 ⁻¹ µCi/cc 2.5 x 10 ¹ µCi/cc
f. Steam Dumps A&B	1/train	Shielded G-M tubes	Main Steam Lines Upstream of MSIVs	NONE	1 x 10 ⁻¹ to 1 x 10 ⁴ mR/hr			1 mR/hr

(1) SSG - single stage gaseous with beta scintillator detector. PIG-particulate/iodine/noble gas with beta scintillator detectors and sodium iodide for iodine channel. Medium and high range noble gas channels utilize energy compensated G-M tubes.

SSL - single stage liquid with sodium iodide detector.

NGM - Noble Gas Monitor

(2) The condenser air ejector exhaust is normally diverted to the main Plant Stack. This point is monitored by the Plant Stack monitoring system.

(3) These are effluent level monitors, not used for accident assessment.

TABLE 3-2B
ST. LUCIE UNIT 2
PROCESS AND EFFLUENT RADIATION MONITORS USED FOR ACCIDENT ASSESSMENT

<u>MONITORS</u>	<u>NUMBER (PER UNIT)</u>	<u>TYPE (1)</u>	<u>LOCATION</u>	<u>CONTROL FUNCTION</u>	<u>RANGE OF MEASUREMENT</u>		<u>TYPICAL HIGH ALARM SETPOINT</u>
a. Steam Generator Blowdown	2	SSL	RAB	Close S/G blowdown valves and sample FCV-23-3, 5, 7, 9	1×10^{-7} to 1×10^{-2} $\mu\text{Ci/cc}$		2×10^{-4} $\mu\text{Ci/cc}$
b. Condenser Air Ejector	1	SSG	Turbine Bldg.	NONE	1×10^{-7} to 1×10^{-1} $\mu\text{Ci/cc}$ (3)		2×10^{-6} $\mu\text{Ci/cc}$
c. Fuel Handling Building Stack	1	PIG	FHB Roof	(3)	1×10^1 to 1×10^6 CPM 1×10^1 to 1×10^6 CPM 1×10^{-7} to 1×10^{-1} $\mu\text{Ci/cc}$	P I (3) G (2)	1×10^4 CPM 1×10^4 CPM 1×10^{-3} $\mu\text{Ci/cc}$
d. Plant Stack	2	PIG	RAB Roof	(3)	1×10^1 to 1×10^6 CPM 1×10^1 to 1×10^6 CPM 1×10^{-7} to 1×10^{-1} CPM	P (3) I (3) G	1×10^4 CPM 1×10^4 CPM 1×10^{-3} $\mu\text{Ci/cc}$
Plant Stack Accident Range	1	3-stage gas with multiple part/iodine collectors	RAB Roof	Auto switchback to normal range monitor	1×10^{-7} to 1×10^{-1} $\mu\text{Ci/cc}$ 1.2×10^{-3} to 1.2×10^3 $\mu\text{Ci/cc}$ 1×10^{-1} to 1×10^5 $\mu\text{Ci/cc}$	Low Medium High	1×10^{-3} $\mu\text{Ci/cc}$
e. ECCS Area Ventilation / Accident Range	1/train	3-stage gas with multiple part/iodine collectors	RAB Elev. 43'	Auto switchover to accident range monitor	1×10^{-7} to 1×10^{-1} $\mu\text{Ci/cc}$ 1.2×10^{-3} to 1.2×10^3 $\mu\text{Ci/cc}$ 1×10^{-1} to 1×10^5 $\mu\text{Ci/cc}$	Low Medium High	5×10^{-4} $\mu\text{Ci/cc}$
f. Steam Dumps A&B	1/train	Shielded G-M tubes with bkgd subtraction feature	Main Steam Lines Upstream of MSIVs	NONE	1×10^{-2} to 1×10^4 mR/hr		1.5 mR/hr

(1) SSG - single stage gaseous with beta scintillator detector. PIG-particulate/iodine/noble gas with beta scintillator detectors and sodium iodide for iodine channel. 3-stage accident monitors use beta scintillator for low range, cadmium - telluride for medium/high ranges.

SSL - single stage liquid with sodium iodide detector.

(2) The condenser air ejector exhaust monitor is normally diverted to the Plant Stack. The FHB stack exhaust is diverted to the main Plant Stack under high fuel pool area radiation conditions and then becomes monitored by the Plant Stack monitoring system.

(3) These are effluent level monitors, not used for accident assessment.

TABLE 3-3
ST. LUCIE 1 AND 2 AREA RADIATION MONITORS

1. Containment Isolation Monitors

Unit 1:

Range:	1.0 to 10^5 mR/hr
Typical Alarm Setpoint	8000 mR/hr

Unit 2:

Range:	1.0 to 10^7 mR/hr
Typical Alarm Setpoint	8000 mR/hr

2. In-Containment High Range Monitors

Unit 1:

Range:	1.0 to 10^8 R/hr
Typical High Alarm Setpoints:	6.4 R/hr (calibrated setpoint)

Typical High/High Alarm Setpoints:	8.0 R/hr (calibrated setpoint)
------------------------------------	--------------------------------

Unit 2:

Range:	1.0 to 10^8 R/hr
Typical High Alarm Setpoints:	6.4 R/hr (calibrated setpoint)

Typical High/High Alarm Setpoints:	8.0 R/hr (calibrated setpoint)
------------------------------------	--------------------------------

3. Spent Fuel Pool Monitor

Unit 1:

Range:	0.1 to 10^4 mR/hr
Typical Alarm Setpoints:	5 mR/hr (High)
	12 mR/hr (High/High)

Unit 2:

Range:	0.1 to 10^4 mR/hr
Typical Alarm Setpoints	5 mR/hr (High)
	15 mR/hr (High/High)

4. Post LOCA Monitors

Unit 1:

Range:	1.0 to 10^5 mR/hr
Typical Alarm Setpoints:	75 mR/hr (High)
	100 mR/hr (High/High)

Unit 2:

Range:	10 to 10^7 mR/hr
Typical Alarm Setpoints:	75 mR/hr (High)
	100 mR/hr (High/High)

TABLE 3-4
NON-RADIOLOGICAL INSTRUMENTATION USED FOR ACCIDENT ASSESSMENT

<u>INSTRUMENTS</u>	<u>RANGE UNIT 1</u>	<u>RANGE UNIT 2</u>
RCS pressure	0-1600/ 1500-2500 psia 0-3000 psia	0-750/ 1500-2500 psia 0-3000 psia
RCS temperature hot leg (control channel) hot leg (safety channel) cold leg (control channel) cold leg (safety channel) cold leg (wide range)	515-615 F 515-665 F 515-615 F 465-615 F 0-600 F	515-615 F 515-665 F 515-615 F 465-615 F 0-600 F
Incore thermocouples	32-2300 F	32-2300 F
Subcooled Margin Monitors (QSPDS)	Calculated	Calculated
Nuclear Instrumentation Power Range (Linear Scale) Wide Range Power (Log Scale) Start-Up Channel	0-125% 2×10^{-8} -200% $1-10^5$ CPS	0-125% 2×10^{-8} -200% $1-10^5$ CPS
Pressurizer pressure (same as RCS)	0-1600/ 1500-2500 psia 0-3000 psia	0-750/ 1500-2500 psia 0-3000 psia
Pressurizer level	0-100%	0-100%
Steam Generator pressure (Main steam side)	0-1200 psig	0-1200 psig
Steam Generator level	0-100%	0-100%
Main steam pressure (safety channel)	0-1200 psia	0-1200 psia
ECCS header isolation valve lights	red - open green - closed	red - open green - closed
ECCS pumps	0-75 amps	0-75 amps
Containment pressure	0-50 psig (ESFAS) 0-60 psig -5-175 psig	0-15 psig (ESFAS) 0-60 psig -5-175 psig
Earthquake monitor	0-20%g	N/A

N/A = not applicable to unit

4. NOTIFICATION AND COMMUNICATION

This section describes the procedures and methods established for initial notification and follow-up communications with Florida Power & Light Company, and from Florida Power & Light Company to the appropriate state, county, and federal response organizations. Section 4.6, Communications Equipment, describes the referenced systems in more detail. **Figure 1-2** shows the initial notification flow. **Table 4-1** presents the organizational positions and alternates for the primary response organizations responsible for ensuring the manning of communications links.

4.1 FPL Emergency Response Organization

The FPL Emergency Coordinator, acting in accordance with plant procedures, has the responsibility to make the necessary notifications and communications, and for determining the content of the notification. However, actual contacts may be made by designated communications assistants. The use of the phrase "Emergency Coordinator" below is also defined as "Emergency Coordinator or designated communicator," except for those items described in Section 2.2.2.2 which cannot be delegated.

1. Initial Notification

Florida Power & Light Company emergency procedures call for the following actions for initial notification within the FPL organization.

1. Personnel detecting a potential significant off-normal event or condition should report it to the Shift Manager by the fastest means available. This may mean face-to-face communication, the plant public address system, or the commercial telephone system. These systems provide adequate means of redundancy for this initial notification.

The following information should be related to the extent possible:

- Type of emergency (fire, pipe rupture, etc.).
- Location of emergency.
- Presence of injured personnel.
- Extent of damage to plant components.

The Shift Manager directs the investigative actions to address the off-normal event. The Shift Manager classifies the event and if it is determined to be an Unusual Event, Alert, Site Area Emergency, or General Emergency, implements this Emergency Plan and becomes the Emergency Coordinator.

4. NOTIFICATION AND COMMUNICATION (continued)

4.1 1. 1. (continued)

As necessary, the Emergency Coordinator notifies plant personnel of the emergency situation and any required protective actions by the Plant Public Address system. Activation of FPL personnel proceeds to the degree necessary, as determined by the EC, in response to the severity of the emergency.

If necessary, the Emergency Coordinator directs the evacuation of all visitors and non-essential Florida Power & Light Company employees.

2. The Emergency Coordinator notifies the Shift Communicator (SC) by the most readily available communications system and provides basic information as described below and the status of his/her notification of off-site authorities. The SC notifies the Recovery Manager (RM) and appropriate response personnel by telephone, cellular phone, or beeper.

The Emergency Coordinator provides the following information to the SC to the extent possible:

- Type of accident or incident
 - Affected Unit
 - Assessment of the emergency condition (including the class of emergency).
 - Information on personnel injuries, and an estimate of personnel radiation exposures.
 - Off-site support already called in and/or required.
 - An estimate of the magnitude of a radioactive material release and the area possibly affected, if applicable.
 - Actions already taken or recommended with respect to the evacuation of various on-site areas, if applicable.
 - Meteorological information.
 - Assessment of potential radiation exposure to persons off-site and any protective actions for off-site areas recommended, if applicable.
3. Once the Emergency Operations Facility (EOF) is declared operational the Recovery Manager (RM) assumes responsibility for notification of off-site governmental agencies.

4. NOTIFICATION AND COMMUNICATION (continued)

4.1 2. Communications

Initially, communications between the Emergency Coordinator (in the Control Room) and FPL's Expanded Emergency Organization are by redundant telephone systems, with radio as the backup. When the Emergency Operations Facility is mobilized, communications within the FPL Emergency Response Organization are accomplished primarily using commercial phones.

Follow-up messages regarding the prognosis for worsening or terminating of the event as well as requests for on-site support by off-site organizations will be made periodically or as needed by the EC to the RM. Recommendations for off-site protective measures to Division of Emergency Management (DEM) may be included as part of follow-up messages. These measures are indicated on **Figure 5-1**.

4.2 State and County Agencies

The State and County agencies are notified of an emergency situation (within 15 minutes) via redundant communication lines. State of Florida notification and communications procedures are presented in Chapter 6 of the State Plan.

1. Division of Emergency Management

Initial Notification

FPL's Emergency Coordinator will make initial notification within 15 minutes of declaring an emergency to the Duty Officer at the State Watch Office (SWO) in Tallahassee. The State's Hot Ring Down (commercial telephone and EMnet (Satellite Communications System) serve as backups) will be used for notification of any emergency: Unusual Event, Alert, Site Area Emergency or General Emergency. Backup telephone numbers for 24-hour per day notification are provided by procedure.

Figure 4-1 shows the information to be communicated to SWO during initial and follow-up notifications. The listed information is provided to the extent possible at the time of initial notification. Periodically, additional update information is included in follow-up messages. Follow-up messages may come from the Technical Support Center (TSC), if operational, or the Emergency Operations Facility (EOF), if operational.

4. NOTIFICATION AND COMMUNICATION (continued)

4.2 1. Division of Emergency Management (continued)

The initial notification may be brief with certain information not available. Follow-up messages from the Emergency Coordinator or Recovery Manager to the Division of Emergency Management (DEM) will include the required information as it becomes available.

The Division of Emergency Management has established a procedure to authenticate emergency notification from the St. Lucie Plant. The Hot Ring Down and EMnet systems are restricted circuits under control of the DEM and local government.

Communications

The Emergency Coordinator will maintain periodic contact with the State Watch Office, located at the State Emergency Operations Center (EOC) in Tallahassee, via the Hot Ring Down network.

FPL responsibility for communication with off-site agencies is transferred from the Emergency Coordinator to the Recovery Manager when the Recovery Manager declares the EOF operational.

FIGURE 4-1
FLORIDA NUCLEAR PLANT EMERGENCY NOTIFICATION FORM¹
(Page 1 of 1)

ATTACHMENT 1
FLORIDA NUCLEAR PLANT EMERGENCY NOTIFICATION FORM
(Page 1 of 1)

On-line Verification: ☐ SWP/DEM ☐ DOH/BRC ☐ St. Lucie County/Ft. Pierce ☐ Martin County

1.* A. ☐ THIS IS A DRILL B. ☐ THIS IS AN EMERGENCY

2. A. Date: ____/____/____ B. * Contact Time: ____ C. Reported by: (Name) ____
D. Message Number: ____ E. Reported from: ☐ Control Room ☐ TSC ☐ EOF
F. ☐ Initial / New Classification OR ☐ Update Notification

3.* Site: A. ☐ Crystal River Unit 3 B. ☐ St. Lucie Unit 1 C. ☐ St. Lucie Unit 2
D. ☐ Turkey Point Unit 3 E. ☐ Turkey Point Unit 4

4.* Emergency Classification: A. ☐ Notification of Unusual Event B. ☐ Alert
C. ☐ Site Area Emergency D. ☐ General Emergency

5.* A. ☐ Emergency Declaration: B. ☐ Emergency Termination: Date: ____/____/____ Time: ____

6.* Reason for Emergency Declaration: A. ☐ EAL Number ____/____/____ OR B. ☐ Description: ____
Alpha / Alpha / Numeric

7. Additional Information or Update: A. ☐ None OR B. ☐ Description: ____

8.* Weather Data: A. Wind direction from ____ degrees B. Downwind Sectors Affected: ____

9.* Release Status: A. ☐ None (Go to Item 11) B. ☐ In progress C. ☐ Has occurred, but stopped (Go to Item 11)

10. Release Significance Category (at the Site Boundary):
A. ☐ Under evaluation.
B. ☐ Release within normal operating limits (≤ 3.5 E-1 Ci/sec noble gas, ≤ 4.6 E-5 Ci/sec iodine)
C. ☐ Non-Significant Fraction of PAG Range (release is $>$ normal limits and < 500 mrem TEDE and 1000 mrem CDE)
D. ☐ PAG Range (≥ 500 mrem TEDE or ≥ 1000 mrem CDE)
E. ☐ Liquid release (no actions required)

11.* UTILITY PROTECTIVE ACTION RECOMMENDATIONS FOR THE PUBLIC:

A. ☐ No utility recommended actions at this time.

B. ☐ The utility recommends the following protective actions:

	<u>Evacuate Sectors</u>	<u>Shelter Sectors</u>	<u>Monitor & Prepare Sectors</u>
Evacuate Zones: ____ OR 0 - 2	____	____	____
Shelter Zones: ____ 2 - 5	____	____	____
____ 5 - 10	____	____	____

AND consider issuance of potassium iodide (KI)*

If form is completed in the Control Room, go to Item 15. If completed in the TSC or EOF, continue with Item 12.

12. Plant Conditions: A. Reactor Shutdown? ☐ Yes ☐ No B. Core Adequately Cooled? ☐ Yes ☐ No
C. Containment Intact? ☐ Yes ☐ No D. Core Condition: ☐ Stable ☐ Degrading

13. Weather Data: A. * Wind Speed ____ mph B. Stability Class ____

14. Additional Release Information: A. ☐ N/A OR Read this statement: *1 hour projected doses as follows:

<u>Distance</u>	<u>Projected Thyroid Dose (CDE) for 1 Hour</u>	<u>Projected Total Dose (TEDE) for 1 Hour</u>
1 Mile (Site Boundary)	B. ____ mrem	C. ____ mrem
2 Miles	D. ____ mrem	E. ____ mrem
5 Miles	F. ____ mrem	G. ____ mrem
10 Miles	H. ____ mrem	I. ____ mrem

15. (Do Not Read) EC or RM Approval Signature: ____ Date: ____/____/____ Time: ____
Message Received By: Name: ____ Date: ____/____/____ Time: ____

* Items are evaluated for NRC Performance Indicators (PI's)
EPIP-08-F01

Form Revision: 3

¹ Format may vary in plant procedures.

4. NOTIFICATION AND COMMUNICATION (continued)

4.2 2. Department of Health

Initial Notification

The Division of Emergency Management (DEM) State Watch Office Duty Officer is responsible for notifying the Department of Health. Notification is made to the Bureau of Radiation Control. A Health Physicist contacts the St. Lucie County EOC to ascertain what, if any, protective actions have been initiated. If required, the Bureau of Radiation Control activates the Mobile Emergency Radiological Laboratory (MERL) and/or the Radiological Monitoring Teams.

Communications

The Public Health Physicist maintains contact with the Division of Emergency Management (DEM) via mobile radio as he/she travels to the FPL Emergency Operations Facility. Contact is maintained with the Mobile Emergency Radiological Laboratory (MERL) by the Division of Emergency Management (DEM) via cellular phone while the MERL is in transit. On arrival, commercial phones are also available.

The State Plan describes provisions for communication between EOCs and off-site radiological monitoring teams in Chapter 6 and Appendix III.

4.3 St. Lucie County and Martin County Department of Public Safety Directors

Initial Notification

The risk county EOCs are initially notified simultaneously via the same communications link used (Hot Ring Down or its alternates) to notify the Division of Emergency Management State Watch Office for all four classes of emergencies. Hot Ring Down and its alternates are monitored on a 24-hour basis by the St. Lucie and Martin County Departments of Public Safety.

The Department of Public Safety Directors can then be reached by telephone or by dispatching a patrol car. Also, the Duty Officer at the Division of Emergency Management's State Watch Office is responsible for confirming the receipt of emergency notification by the County Emergency Management Directors. When the emergency notification is by commercial telephone, he/she is responsible for verifying the message from the Plant by a callback procedure and informing the County Directors that the message has been verified. Alternate commercial telephone numbers for 24-hour per day notification are provided by procedure.

4. NOTIFICATION AND COMMUNICATION (continued)

4.3 St. Lucie County and Martin County Department of Public Safety Directors (continued)

Initial Notification (continued)

Follow-up messages concerning the emergency (Alert Class and higher) may come from the TSC staff or the EOF. Information that should be contained in these messages is shown in **Figure 4-1**.

Communications

The County Department of Public Safety Directors proceed to the St. Lucie and Martin County Emergency Operations Centers, respectively and use the communication channels available there. These include Hot Ring Down, EMnet (Satellite Communications System), teletype, facsimile, police and fire radio networks, telephone, and RACES (Radio Amateur Civil Emergency Services).

4.4 Federal Agencies

1. U.S. Nuclear Regulatory Commission

Initial Notification

The NRC Operations Center in Maryland is notified of certain events by Emergency Notification System (ENS) from the Control Room. The notifications include all radiological emergencies and are made in accordance with Federal Regulations and plant procedures. The Emergency Coordinator or his/her designee initiates this contact immediately after notification of the appropriate State or local agencies and not later than one hour after the time the licensee declares one of the Emergency Classes. Alternate commercial phone numbers are provided by procedure.

Communications

Communications with the NRC may be handled by telephone from the Control Room, the Technical Support Center (if operational), or the Emergency Operations Facility (if operational).

2. U.S. Coast Guard

Assistance from the Coast Guard for on-site rescue, aid or evacuation of persons in danger, and the protection of property threatened by any type of disaster can be requested by telephone from the Emergency Coordinator or his/her designee or the Recovery Manager or his/her designee to the Coast Guard Duty Officer.

4. NOTIFICATION AND COMMUNICATION (continued)

4.5 Notification of the Public by the State/County

The State Plan (See Appendix D for Distribution of State Plan) defines the state and county procedures for notifying the public in the event of an emergency. Appendix III, Section VI of the State Plan describes further provisions.

4.6 Communications Equipment

The various communications systems previously discussed are described in more detail below and shown in **Figure 4-2**.

This communications network incorporates all telephones, the plant public address system, fixed and mobile radio systems, and radio "beepers" employed for routine plant operation and other normal company business. Key personnel on-site are readily accessible, since at any time most or all of these systems are available to contact them. 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 activities.

Public Address System (PA)

The PA system, with speakers strategically located throughout the Protected Area, provides for the transmission of warning and instructions in the event of an emergency. The system is in frequent use during normal plant operations, and consists of numerous separate amplifiers which operate from the plant 120 volt AC vital instrument power system. Handsets are provided in the Plant Control Rooms, the North and South Services Buildings, and numerous other locations within the Protected Area. The system includes one paging channel and five party line channels.

Commercial Telephones

There are numerous Telephone System lines connected to the plant for normal dial telephone service. This system represents the primary system for routine communication with areas outside the plant.

Portable Radio Transceivers

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 an FM radio transceiver over a range of several miles.

4. NOTIFICATION AND COMMUNICATION (continued)

4.6 Communications Equipment (continued)

Radio Paging System

Telephones may be interconnected to the Radio Paging System. This system is capable of reaching beepers located within FPL's service area from Sebastian Inlet to Miami-Dade County/Monroe County line. Beepers are regularly assigned to key personnel in the Emergency Response Organization as shown in the Emergency Response Directory (ERD).

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 electric service to the base radio stations, emergency power can be supplied to this equipment.

The Control Room, TSC, and EOF have access to one or more of these radio systems. These radio systems will provide back-up communications between the Plant, the EOF, and the System Operations Office. The System Operations Office has direct telephone lines and either direct, patch, or indirect radio contact with all the plants, radio-equipped vehicles and service centers in the Florida Power and Light Company system.

4. NOTIFICATION AND COMMUNICATION (continued)

4.6 Communications Equipment (continued)

Hot Ring Down Telephone System (HRD)

The Hot Ring Down Telephone System is installed in the Control Rooms, TSC, EOF, State EOC, and risk county EOCs. This system uses dedicated commercial telephone lines and is activated through pre-designated three digit access "telephone numbers."

The initial notification of an emergency and other required notifications are made via this system to the State Division of Emergency Management (State Watch Office - Tallahassee) and the County Departments of Public Safety. The Hot Ring Down System is the primary system for communication among these facilities. Commercial telephone and EMnet (Emergency Satellite Communications System) serve as backups.

EMnet

EMnet is an Emergency Satellite Communications System which is available in the Control Rooms, the Technical Support Center, and the Emergency Operations Facility. The EMnet is an alternate communications pathway for the Hot Ring Down telephone.

NRC Emergency Telecommunications System (ETS)

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.

Additionally, this system contains conferencing bridges and access to a Local Area Network (LAN) for use by the NRC Site Team.

4.7 Testing

As discussed in Section 7.1, Exercises and Drills, communications equipment and procedures will be tested periodically as part of the FPL program of exercises, drills, and tests for maintaining emergency preparedness.

TABLE 4-1 COMMUNICATIONS RESPONSIBILITIES

The following positions are responsible to ensure the manning of communication links for the listed organizations/facilities:

1. FPL On-shift Emergency Response Organization/Control Room

Primary: Emergency Coordinator

1. Shift Manager (SM)
2. Alternate as defined by plan and procedure

Alternate: Shift Communicator (from available plant operating and technical staff).

2. FPL Expanded Emergency Response Organization/Technical Support Center and Emergency Operations Facility

Primary: Emergency Coordinator/Recovery Manager

1. Plant General Manager (TSC)/Senior Company Manager (EOF)
2. Alternate as defined by plan and procedure

Alternate: Designated Communicator (from available management or technical staff).

3. Florida Division of Emergency Management/State Emergency Operations Center, Tallahassee

Primary: Chief of Operations, DEM

Alternate: As defined in the State Plan

4. St. Lucie County/Emergency Operations Center, Ft. Pierce

Primary: St. Lucie County Department of Public Safety Director

Alternate: As defined in the State Plan

5. Martin County/Emergency Operations Center, Stuart

Primary: Martin County Department of Public Safety Director

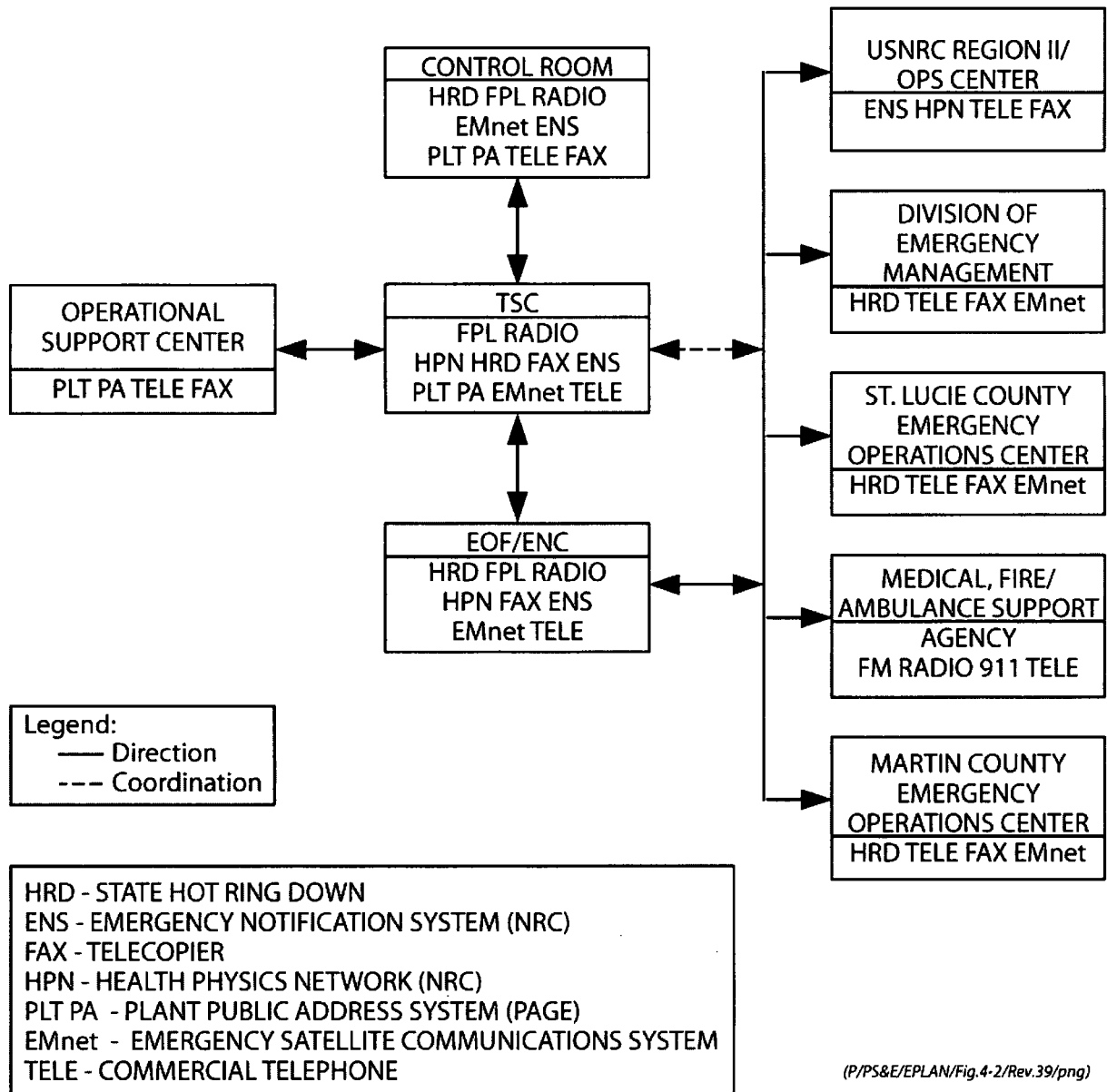
Alternate: As defined in the State Plan

6. Florida Department of Health Bureau of Radiation Control (BRC)/Field Monitoring Teams

Primary: Supervisor, BRC

Alternate: As defined in the State Plan

**FIGURE 4-2
COMMUNICATIONS INTERFACES**



5. RESPONSE TO ACCIDENT CONDITIONS

Table 3-1 identifies a spectrum of off-normal events and classifies those events into four categories. The classification is based on Emergency Action Levels which are related to instrument readings, or observations, or a combination of these identified in the table. This section discusses the assessment of and response to these events.

5.1 Accident Assessment

Once an off-normal event has been detected and classified in accordance with the Emergency Action Levels, a process of continuing assessment will be initiated. System instrumentation and procedures which would be used as appropriate in the assessment process are described below. Specifications of instrumentation utilized for accident assessment are contained in procedures. Post accident sampling capabilities are also described in procedures.

1. Plant Release Pathways

Units 1 and 2 at the St. Lucie Plant are equipped with independent systems for measuring radioactivity at potential release points and within the containment buildings (See **Table 3-2 and 3-3**).

The plant vent monitoring system samples the exhaust stream which is the pathway for releases from the containment purge, reactor auxiliary building, condenser air ejector exhaust and the waste gas decay tanks. The waste gas system has a separate monitor which controls releases to the plant vent.

Additional release pathways are also monitored. These include the fuel building vent (exhaust for fuel pool, new fuel room and fuel pool pump room). During accident conditions, the Unit 2 fuel building exhaust is diverted and monitored through the Unit 2 plant vent. The two Emergency Core Cooling System (ECCS) pump bays at each of the units have monitored exhaust systems. The two main steam lines at each of the units are monitored for possible releases via the safety relief valves and/or atmospheric steam dump.

All monitored pathways, excluding the main steam lines, are equipped with high efficiency particulate filters or charcoal/iodine filters or both. The monitoring point is after the filters and before the release opening to the atmosphere.

For particulates and iodine, release points other than the main steam lines will be monitored using grab sampling and analysis in accordance with plant procedures.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.1 1. Plant Release Pathways (continued)

In addition to these monitors, each unit is provided with an area radiation monitoring system (see **Table 3-3**). This monitoring system employs detectors distributed throughout the unit and detector indicators are provided locally and in the respective Control Rooms. The area monitoring system provides early indication of a release of radioactivity within the unit.

Under accident conditions, the containment atmosphere is monitored for radioisotopic content by grab sampling. In addition, the containment is provided with radiation monitors. These monitors would provide an early indication of radioactivity in the containment, particularly as a result of a loss of reactor coolant to the containment building.

Chemical and radioisotopic analyses of the reactor coolant are provided by grab sampling.

Also, each plant has a system of fire detectors with appropriate alarms in the Control Room to provide warning of a fire emergency.

2. On-site Sampling Resources

The capability is available at the St. Lucie Plant to obtain grab samples of the reactor containment atmosphere and the reactor coolant.

To obtain grab samples of the containment atmosphere following an accident, a special removable gas sampling vessel is provided in the Containment Hydrogen Analyzer System on both units. The removable vessel would be transported to the plant laboratory. At the laboratory, a portion of the gas would be drawn from the vessel, and the radioisotopic content determined by a multichannel analyzer. Plant procedures provide detailed instructions for sample acquisition, transportation, and analysis.

Reactor coolant grab samples can also be taken following an accident. Details on sample acquisition, transportation, and analysis are described in plant procedures.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.1 2. On-site Sampling Resources (continued)

Air samples will be collected using portable air samplers in accordance with a plant procedure. Portable air samplers are located such that time required to obtain results is minimized for critically manned areas (e.g., Control Room, Technical Support Center). Silver zeolite sample cartridges are stored on-site. To preclude interferences by noble gas adsorption, only silver zeolite cartridges will initially be used to sample critically manned areas (e.g., Control Room, Technical Support Center, other areas which require personnel to be present). Collected samples will be transported promptly to the lab. If necessary, an alternate Counting Room will be established using portable equipment in a low background area. Analysis by gamma spectroscopy, in accordance with approved procedures, is preferred, but portable instrumentation yielding usable results is available.

3. Meteorological Systems

Meteorological data are required to make estimates of off-site radiation exposure in the event of a release of gaseous radioactivity.

Measurement of three meteorological parameters, wind speed, wind direction, and a measure of atmospheric stability, are required to make estimates of atmospheric dispersion, an essential part of an off-site radiation exposure calculation.

Meteorological data are collected at the St. Lucie Plant site. The readouts from the site meteorological tower are digital with strip chart recorders to provide 15 minute averages and the data are directly available at the Unit 1 Control Room. The National Weather Service Station serves as the backup. **Table 5-1** summarizes the available data.

As indicated in **Table 5-1**, values of the key meteorological parameters are provided for by the St. Lucie Plant meteorological tower. These readouts are provided continuously and the data are directly available at the Control Room, Technical Support Center (TSC), and the Emergency Operations Facility (EOF) via the Emergency Response Data Acquisition and Display System (ERDADS).

Meteorological data are provided to the State via initial and follow-up communications. Data is also provided in response to direct inquiries from DEM and the Bureau of Radiation Control. The EOF and NRC can receive timely meteorological information through the TSC, upon request, or through ERDADS.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.1 4. Source Term and Release Determination

As discussed in Section 5.1.3 certain meteorological parameters are required for the calculation of off-site radiation exposure from airborne releases. Additional essential pieces of information are the rate of release and isotopic composition of the released radioactivity. If radioactivity was released from a monitored vent, then a direct measure of the release rate would be available. Monitored release points are discussed in Section 5.1.1.

Based upon certain assumptions, a specific source term can be determined using EPIP-14, Dose Assessment Using the Unified RASCAL Interface, or 1/2-EPIP-09, Off-site Dose Calculations, for all monitored release points and grab samples.

In the event of a loss of coolant accident, the containment radiation monitors would provide the first indication of the magnitude or existence of radioactivity in the containment atmosphere. Additional information about the isotopic composition of the airborne radioactivity would be derived from isotopic analysis of a containment atmosphere sample.

Containment High Range Radiation Monitors (CHRRM) provide an indication of levels of radioactive material in the containment atmosphere. These monitors can be used to determine a certain concentration of radionuclides based upon the isotopic mixes assumed for the accidents described in the Updated Final Safety Analysis Report (UFSAR). Procedures addressing these parameters and calculations are provided in EPIP-14, Dose Assessment Using the Unified RASCAL Interface, or 1/2-EPIP-09, Off-site Dose Calculations.

Procedures have been developed to assist the plant staff in estimating release rates and isotopic content for releases from the various plant vents.

A containment release rate for use in the off-site dose estimation procedure mentioned above is conservatively estimated as the design basis leak rate at the design pressure.

TABLE 5-1
SOURCES OF METEOROLOGICAL DATA

Meteorological Parameter	Primary Source of Information	Type of Display	Alternate Source of Information
Wind Speed	St. Lucie Meteorological Tower (10 meter sensors serve as primary, 60 meter sensors serve as first backup)	ERDADS display or Digital and Chart recorder (15 minute averages) - Unit 1 only	National Weather Service Station Melbourne
Wind Direction	St. Lucie Meteorological Tower (10 meter sensors serve as primary, 60 meter sensors serve as first backup)	ERDADS display or Digital and Chart recorder (15 minute averages) - Unit 1 only	National Weather Service Station Melbourne
Stability Class (ΔT)	St. Lucie Meteorological Tower (60 meter temperature sensor - 10 meter temperature sensor)	ERDADS display or Digital and Chart recorder (15 minute averages) - Unit 1 only	National Weather Service Station Melbourne
Other basic meteorological parameters	National Weather Service Station Melbourne	None (via telephone)	

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.1 5. Exposure and Dose Rate Determination

One of the uses of radiation monitors and meteorological instrumentation is the calculation of off-site radiation exposures. An estimate of doses is needed in the event of a radiological emergency so that responsible agencies can use this information to plan protective action.

EPIP-14, Dose Assessment Using the Unified RASCAL Interface, provides the details of how initial dose estimates are determined. In particular, current meteorological data, grab sample results, Field Monitoring Team data, process monitor data, and Containment High Range Radiation Monitors (CHRRM) readings are used in conjunction with tables to estimate doses under actual meteorological conditions. Dose calculations will be updated periodically during the course of the accident and the results will be provided to State and County authorities for their use in evaluating the need for protective action. **Figure 5-1** compares off-site dose estimates with the Environmental Protection Agency (EPA) Protective Action Guides (PAGs). Initial dose estimates would be prepared by the Chemistry Department representative who reports to the Technical Support Center. Refined dose estimates would be performed by dose assessment personnel in the Emergency Operations Facility, when operational. Dose estimates may be performed using EPIP-14 or manual calculations using 1/2-EPIP-09. Default values, estimating a worst case situation can be utilized if assessment instrumentation is not available (off-scale or inoperable) and field sample analysis has not yet been completed. FPL off-site dose calculations and field monitoring analysis will be compared with Florida Department of Health and other off-site agencies (NRC, DOE) calculations and analysis when those agencies co-locate in the EOF.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.1 6. Off-site Monitoring

Dosimetry

The Florida Department of Health maintains a system of about 35 TLD stations in the vicinity of St. Lucie Plant. Stations are provided in each land based 22.5° sector, at approximately 1-mile, 5-mile and 10-mile radii.

Laboratories and Sampling

Laboratory facilities are provided as discussed in Section 2.3.2. The plant's on-site radiological laboratories serve as primary facilities with backup provided by portable equipment. Analysis of off-site environmental samples collected by the State will be performed at the State's Mobile Emergency Radiological Laboratory. This mobile lab can be in position near the site within three hours of notification. Bureau of Radiation Control representatives dispatched to the EOF will serve as a central point for the receipt of all State off-site field monitoring data.

Field Monitoring - State

Chapter 9 of the State Plan discusses the State role in accident assessment. It describes agencies and their missions, specialized personnel, special equipment, and other matters related to field monitoring within the Plume Exposure Pathway Emergency Planning Zone (EPZ). Chapter 8, Section V and Figures 8-2 to 8-4 discuss in further detail the capability and resources for field monitoring.

Transportation of field teams is discussed in Chapter 8, Section III of the State Plan. Field team communications are described in Chapter 6 of the State Plan. Monitoring equipment is described in Chapter 8, Section V and Figures 8-2 to 8-4. Composition of field teams is discussed in Chapter 9 of the State Plan.

Although county plans discuss accident assessment, Section X of Appendix III, of the State Plan, indicates that the off-site accident assessment responsibility rests with the Bureau of Radiation Control.

DOH Bureau of Radiation Control provides for the measurement of iodine in air and the use of such measurements in assessment activities.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.1 6. Off-site Monitoring (continued)

Field Monitoring - Plant

Plant procedure RP-SL-100-1005, "Radiation Protection Emergency Organization," provides methods for activation of emergency field monitoring teams and dispatching these teams throughout the plume EPZ.

Procedure RP-SL-102-2005, "Environmental Monitoring During Emergencies," includes techniques for measurements of airborne concentrations of radioiodine and direct radiation dose rates, transportation of teams, expected deployment times, and communications. Instrumentation, at the plant, is available with the capability to detect radioiodine in concentrations of at least 10^{-7} microcuries/cc, in the field. Assessment of data is discussed in EPIP-10, "Off-site Radiological Monitoring."

Coordination of Sampling Data

To assure that information concerning FPL off-site radiological assessment is exchanged, arrangements have been made for representatives from the Bureau of Radiation Control to be stationed at the EOF. Direction and control of field operations for the Department of Health will be provided by the Bureau of Radiation Control Health Physics Supervisor. He/she will conduct/supervise accident assessment and/or response of the field teams from a post at the EOF, where office space and communications equipment are available. Prior to the arrival of Bureau of Radiation Control personnel, coordination of this information will be through follow-up communications with DEM and the Plume Exposure Pathway EPZ counties.

Department of Energy (DOE) off-site monitoring assistance, if required, will be requested by the DEM in consultation with the Bureau of Radiation Control. Lead responsibility for coordination with the DOE is assigned to the Bureau of Radiation Control.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.2 Protective Response

This section describes the protective actions on-site and data provided to assist the State and County in determining appropriate off-site protective actions.

1. Protective Actions

On-site

On-site protective actions for a radiological emergency consist of evacuation of the affected area (localized evacuation or site evacuation), monitoring of all personnel who were in the affected area, decontamination as required, and re-entry to determine the magnitude and extent of the problem when it is determined to be safe to do so.

During a Hostile Action event, protective actions can range from taking cover to evacuation, depending on the event and timing of the event.

Individuals remaining or arriving on-site during an emergency will be provided protective equipment as prescribed by the TSC HP Supervisor and plant procedures. Florida Power & Light Company will make Potassium Iodide (KI) available for use as a thyroid blocking agent. Use of KI will be in accordance with plant procedures.

Control Room personnel are in an isolated environment and need protective equipment if they leave the Control Room. An emergency kit with necessary equipment is present inside both Control Rooms and is to be used for this purpose (**Table 2.3**). In addition, if there is fire or smoke in the Control Room or if the Control Room air becomes contaminated, Control Room personnel might have to don respiratory protective equipment in order to remain in the Control Room to handle the emergency.

Decontamination

Personnel decontamination facilities are available in four locations. Their use will be governed by the nature of the incident.

1. 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.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.2 1. Protective Actions (continued)

Decontamination (continued)

2. Lawnwood Regional Medical Center in Ft. Pierce, FL and Martin Memorial Medical Center in Stuart, FL are available for medical treatment and decontamination of contaminated injured individuals. Lawnwood Regional Medical Center is located approximately 8 miles Northwest of St. Lucie Plant. Martin Memorial Medical Center is located approximately 10 1/4 miles South of St. Lucie Plant.
3. 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.

Off-site

Off-site areas are the responsibility of the respective County Public Safety Departments, the Department of Health, and the Division of Emergency Management of the State of Florida. Control of radioactive contamination and public safety in off-site areas are responsibilities of these governmental agencies, and their criteria for implementing protective actions may be found in the State Plan Chapter 10. Decontamination of off-site areas will be performed under the direction of the Bureau of Radiation Control.

Section XII.E. of Appendix III of the State Plan discusses evacuation routes, times, and facilities in relation to St. Lucie and Martin Counties.

Recommendations for protective actions will be made by the Emergency Coordinator (Recovery Manager after EOF is operational) based upon consideration of severity of an accident (emergency class) and estimated off-site doses (if available). A range of protective actions has been developed in accordance with NUREG-0654, FEMA REP 1, NUREG-0654, FEMA-REP-1, Rev. 1, Supplement 3 and EPA 400-R-92-001. Figure 5-1 shows the decision-making criteria for determination of Protective Action Recommendations (PARs).

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.2 2. On-site Warning and Response

During an emergency, the relocation of plant personnel in the Protected Area 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 plant personnel within the Protected Area can be accomplished in less than 15 minutes. Depending on the nature of the emergency and the extent of the area affected, evacuations have been classified as either a Local Evacuation or an Owner Controlled Area Evacuation.

1. Local Evacuation

Definition

A local evacuation is the evacuation of personnel from a room, area, or building located within the Protected Area.

Criteria

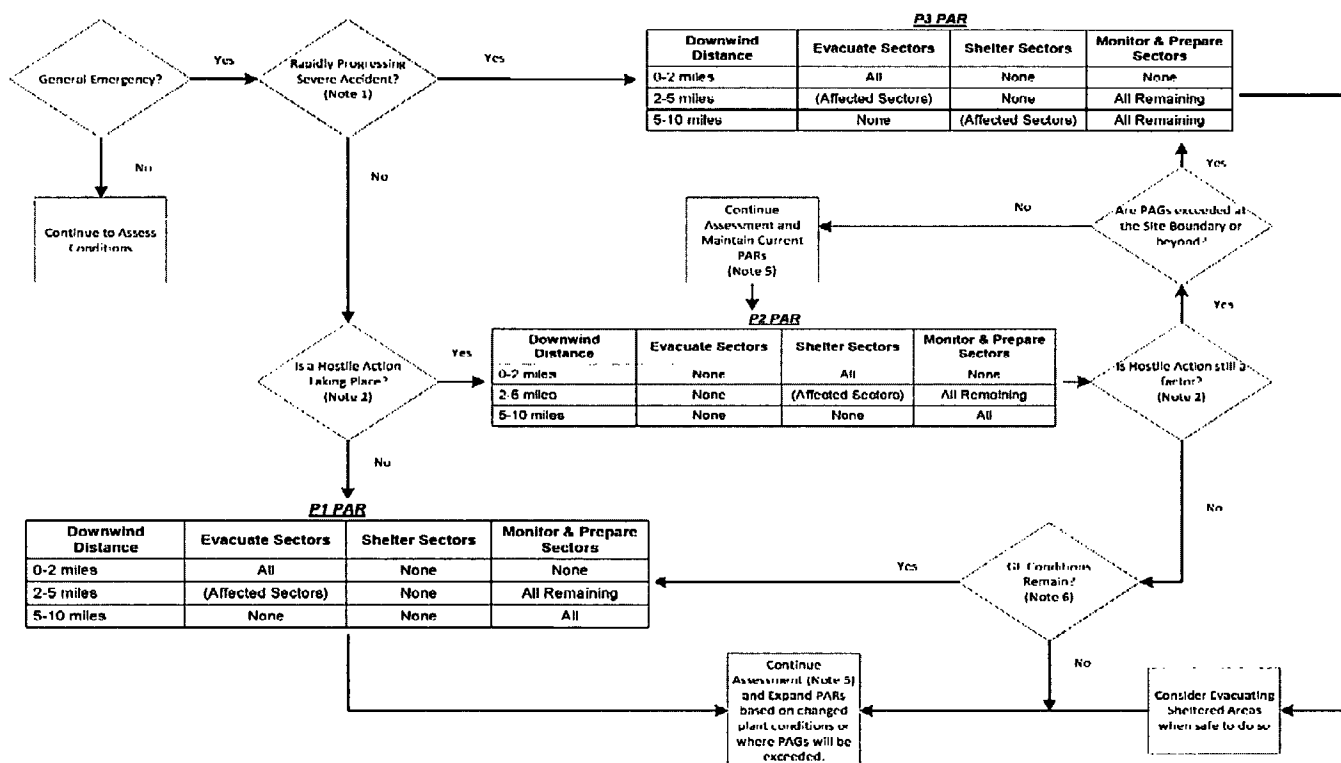
The evacuation of an affected local area will be initiated per routine HP procedures when any of the following conditions occur:

1. Area Radiation Monitor Alarm
2. Containment Evacuation Alarm
3. Unevaluated direct radiation dose rate increase in excess of 100 mrem/hour above normal levels.
4. Unexpected airborne radioactivity concentration in excess of 1×10^{-9} micro Ci/cc.
5. Removable radioactive surface contamination in an unposted area in excess of 1000 dpm/100 cm² beta-gamma over an area 100 ft².
6. Removable radioactive surface contamination in an unposted area in excess of 50 dpm/100 cm² alpha over an area 100 ft².

FIGURE 5-1
PROTECTIVE ACTION RECOMMENDATIONS¹
 (Page 1 of 3)

ATTACHMENT 2
DETERMINATION OF PROTECTIVE ACTION RECOMMENDATIONS (PARs)
 (Page 9 of 13)

PARs Based on Plant Conditions



¹ Format may vary in plant procedures.

FIGURE 5-1
PROTECTIVE ACTION RECOMMENDATIONS¹
(Page 2 of 3)

ATTACHMENT 2
DETERMINATION OF PROTECTIVE ACTION RECOMMENDATIONS (PARs)
(Page 10 of 13)

PARs Based on Plant Conditions

NOTE:

- (1) A Rapidly Progressing Severe Accident involves a containment failure with >20% clad damage or PAG's exceeded at site boundary within 1 hour.

Loss of containment integrity = EALs indicate containment barrier loss. This path is used for scenarios in which containment integrity can be determined as bypassed or immediately lost during a GE with core damage.

20% Clad Damage is identified by ANY the following:

- Pressure ≤ 100 psia and 1250 CET Temp (F)
- Pressure between 100 and 1200 psia and 1550 CET Temp (F)
- Pressure between 1200 and 1650 psia and 1925 CET Temp (F)

If this scenario cannot be immediately confirmed, assume it is not taking place and answer "no" to this decision block.

- (2) Hostile Action: An act toward a Nuclear Power Plant (NPP) 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. Other acts that satisfy the overall intent may be included. Hostile Action should not be construed to include acts of civil disobedience or felonious acts that are not part of a concerted attack on the NPP.
- (3) Shelter in Place (SIP) means that instructions are given to members of the public to remain indoors, turn off heating or air conditioning (as appropriate for the region and season), close windows, monitor communications channels, and prepare to evacuate.
- (4) Monitor and Prepare: The instruction to monitor and prepare is intended to engage the population within the plume exposure pathway emergency planning zone, inform them of the emergency, and advise them that they should monitor the situation and prepare for the possibility of evacuation, SIP, or other protective actions. If an evacuation is underway, officials should ask members of the public who are not directed to evacuate to remain off the roadways to allow the evacuation to proceed.
- (5) Continue Assessments: Radiological and meteorological assessments should be continued and evacuation considered for any areas where dose projections or field measurements indicate that PAGs may be exceeded. Communications with the public should be maintained while protective actions are in effect. **Additionally, changes in wind direction may indicate that if a release begins, it would affect different downwind sectors. If a licensee believes that containment may fail, it should pursue the expansion of PARs.**
- (6) GE Conditions Remain : If the plant has mitigated the conditions that caused the GE declaration (i.e., core cooling is restored), expanding the PAR to evacuate downwind sectors upon completion of the initial staged evacuation may not be necessary. However, if GE emergency action levels are still met, expansion of the PAR to the downwind sectors may be appropriate. If the plant restores core cooling, it must still perform a radiological assessment to identify the extent of contamination, if any. If surveys or dose projections reveal areas under no protective action direction where protective action guidelines (PAGs) could be exceeded, the members of the public in those areas should be evacuated or sheltered, as appropriate.

¹ Format may vary in plant procedures.

FIGURE 5-1
PROTECTIVE ACTION RECOMMENDATIONS¹
 (Page 3 of 3)

PARs Based on Manual Dose Calculation

Release Duration Less Than 2 Hours (Puff Release)

TEDE DOSE	CDE (Thyroid) DOSE	Distance		
		0-2 Miles Use 1 mile value	2-5 Miles Use 2 mile value	5-10 Miles Use 5 mile value
TEDE 500*-999 mrem	CDE 1000*-4999 mrem	Shelter All	Shelter (Sectors Affected)	Shelter (Sectors Affected)
*Dose below this level requires NO ACTION				
TEDE 1000-4999 mrem	CDE 5000-24999 mrem	Shelter All	Shelter All	Shelter All
TEDE 5000 mrem or Greater	CDE 25000 mrem or Greater	Evacuate All	Evacuate (Sectors Affected) + Shelter All Remaining	Evacuate (Sectors Affected) + Shelter All Remaining

Release Duration Greater Than or Equal to 2 Hours

TEDE DOSE	CDE (Thyroid) DOSE	Distance		
		0-2 Miles Use 1 mile value	2-5 Miles Use 2 mile value	5-10 Miles Use 5 mile value
TEDE 500*-999 mrem	CDE 1000*-4999 mrem	Shelter All	Shelter (Sectors Affected)	Shelter (Sectors Affected)
*Dose below this level requires NO ACTION				
TEDE 1000-4999 mrem	CDE 5000-24999 mrem	Evacuate All	Evacuate (Sectors Affected) + Shelter All Remaining	Evacuate (Sectors Affected) + Shelter All Remaining
TEDE 5000 mrem or Greater	CDE 25000 mrem or Greater	Evacuate All	Evacuate All	Evacuate (Sectors Affected) + Shelter All Remaining

(D/PS/EPLAN-F5.1b-R36)

¹ Format may vary in plant procedures.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.2 2. 1. Local Evacuation (continued)

Personnel Actions

When the containment evacuation alarm is activated or when the Emergency Coordinator makes notification over the public address system that a local evacuation has been declared, non-essential FPL and contract personnel, and visitors in the area will go to the designated assembly area and remain there for personnel accountability and monitoring. Plant visitors are escorted at all times by a trained person who is accountable for them. They will also be informed by their escort during any emergency of what they are expected to do during the emergency.

When a local evacuation is declared, the Security Force will assist in personnel accounting and be prepared to brief the SM/Emergency Coordinator.

Precautions

Every effort will be made to minimize personnel exposure to radiation. Personnel who have been in the area of an evacuation should remain in a group and should not mix with other personnel in the assembly area until they have been monitored for possible contamination, unless they are injured. Injured personnel will be treated by the First Aid Team. Provisions exist for off-site treatment of personnel, if required (see Section 2.5).

Evacuation Implementation

The SM/Emergency Coordinator will announce the local evacuation over the public address system, identifying the area affected, the assembly point and other instructions as required. All personnel in the evacuated area will stop work, turn off potentially hazardous equipment and leave the area. All personnel in the evacuated area should report to the designated assembly area for monitoring and accountability. The SM/Emergency Coordinator will activate the Emergency Response Organization as required. The SM/Emergency Coordinator, and department supervisors and foremen having personnel working in the evacuated area, will assist in verifying that all personnel are accounted for. The SM/Emergency Coordinator will initiate a search for personnel who have not been accounted for.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.2 2. 2. Owner Controlled Area Evacuation

Definition

An Owner Controlled Area Evacuation is the orderly withdrawal of all non-essential personnel from the Owner Controlled Area (OCA), including the Protected Area (PA).

Criteria

An Owner Controlled Area Evacuation can be initiated at the discretion of the EC and is signaled by the sounding of the evacuation alarm followed by instructions given over the public address system. Evacuation of the OCA will normally occur at a Site Area Emergency or General Emergency unless such action is deemed unwarranted by the EC (i.e., personnel would be placed at greater risk).

Responsibilities

The EC advises the TSC Security Supervisor of evacuation of the OCA either directly or via the evacuation alarm and/or the public address system. Information needed by the Security Force to properly fulfill their responsibilities during the evacuation is provided to the TSC Security Supervisor by the EC. Significant responsibilities during the evacuation include directing the evacuation movements and personnel accountability.

The EC will direct that a search be initiated for any personnel not accounted for.

Evacuation Preparedness

The population within the OCA is approximately 1300, including workers who may be present on-site at shift change.

All visitors will have adequate transportation available to evacuate all members of their respective groups. The Security Force will assist in arranging for required transportation.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.2 2. 2. Owner Controlled Area Evacuation (continued)

Evacuation Preparedness (continued)

Escorts accompanying visitors will assure that transportation is available at all times while the visitors are on-site. Escorts will maintain controls of groups of individuals to which they are assigned to enable all members of the groups to be located, notified, and evacuated in the event that evacuation of the OCA is called for.

Procedures used by the Security Force define which evacuation route(s) will be used by the various groups in the OCA.

Evacuation Implementation

The EC will sound the evacuation alarm and announce instructions for evacuation of the OCA over the public address system. Upon hearing the alarm and/or evacuation order, all non-essential personnel will evacuate. ERO personnel will report to the TSC, OSC, or EOF for assignment.

The EC will notify the TSC Security Supervisor that an Owner Controlled Area Evacuation is ordered and will advise him/her of all pertinent information affecting the evacuation, including priorities and/or special conditions which exist to enable the evacuation to be conducted in a safe manner. Security will assign specific areas of the OCA, outside the PA, for which they are responsible for personnel notification.

The TSC Security Supervisor will immediately initiate the evacuation procedures for the OCA, outside the PA including: (these actions may occur at the Alert level)

1. Notification of all security patrols and tour guides of the evacuation.
2. Notification of all non-company groups working in or using portions of the OCA.
3. Initiate sweeps of recreation areas and assist in personnel accountability.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.2 2. 2. Owner Controlled Area Evacuation (continued)

Evacuation Implementation (continued)

Upon declaration of an Owner Controlled Area Evacuation, the Security Force will conduct personnel accountability in accordance with emergency procedures. An initial list of individuals in the PA is established in 30 minutes and continuously updated until all individuals are accounted for. The number of security officers on duty at any time is adequate to handle the evacuation of personnel in the OCA should such an action be called for by the EC.

Personnel Actions

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 5.2** 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.

3. Off-site Area Protective Measures

An off-site area evacuation is the orderly withdrawal of all persons from the portion of the public areas surrounding the plant which have been affected by the emergency. The criteria for the initiation of the evacuation are determined by the Department of Health as specified in the State Plan. Appendix III of the State Plan describes evacuation measures and provides maps indicating designated evacuation routes.

Evacuation time estimates have been performed in accordance with NUREG/CR-7002. Annually, an analysis is performed for population changes. **Figure 5-3** (Figure III-21 in the State Plan) is a map of the evacuation routes for the general public. Maps and text describing evacuation routes, monitoring points, and reception centers are provided in the State Plan.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.2 3. Off-site Area Protective Measures (continued)

The EC (RM when the EOF is operational) will recommend offsite protective actions based on the criteria shown in **Figure 5-1**, Protective Action Recommendations.

The St. Lucie and Martin County Public Safety/Emergency Management Directors and the State Division of Emergency Management will be responsible for the direction and implementation of the necessary protective actions as specified in the State Plan, including notification and coordination with other State and local assistance agencies.

It will be the responsibility of the St. Lucie and Martin County Public Safety Departments to notify the general public if an evacuation is warranted. This will be accomplished as discussed in Sections 5.2.4 and 5.2.8.

The State Plan describes the basis for the choice of recommended actions for the Plume Exposure Pathway EPZ during emergency conditions. Protective action decisions are made on the basis of information which becomes available as a result of accident assessment. The Bureau of Radiation Control Standard Operating Procedures also discuss the process by which state officials collect information and make recommendations. The Bureau of Radiation Control Standard Operating Procedures also discuss assessment actions which would form a basis for recommendations. The State and County Plans point out that EPA Protective Action Guides will be an important basis for Protective Action Recommendations (PARs).

4. Public Warning and Information

Chapter 5, Section III to the State Plan, provides information on warning of the public, in general, and Appendix III Section VI discuss warning procedures in St. Lucie and Martin Counties, in particular.

Prompt notification systems are discussed therein. FPL has purchased and installed an alert (siren) and notification system as described in Section 5.2.8.

Notification to the population and arrangements with public communications media are described in the State Plan. Chapter 7 to the State Plan provides the guidance for keeping the public informed about the potential hazards, emergency response, and protective measures that can be taken to minimize or avoid public health effects. Chapter 7 also provides procedures for the timely and accurate collection, coordination, and dissemination to the public of such information.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.2 4. Public Warning and Information (continued)

Chapter 7, Figures 7-1 to 7-8 of the State Plan also provides for sample releases to be used for media. These are consistent with FPL's classification scheme. These are examples of specific prior arrangements that have been made to use public communication media for issuing emergency instructions to the public. Section VIII of Appendix III discusses annual orientation of the media. Section VI of Appendix III indicates TV and radio stations which would be used to alert the public.

5. Population Exposure Estimates

Population exposure estimates are discussed in Chapter 13, Section IV of the State plan. Bureau of Radiation Control Standard Operating Procedures discuss the projected dose calculation process and assessment and monitoring in the Ingestion Exposure Pathway EPZ. Standard Operating Procedures are used to determine dose rates.

6. Special Needs Population

Section XII of Appendix III of the State Plan contains a discussion of evacuation of special need populations.

7. Population Distribution

The State Plan contains maps showing population distribution, and it describes the means for notifying transient and resident population. Population maps and tables are included in Appendix III of the State Plan (St. Lucie Site Plan).

8. Alert and Notification System (ANS)

FPL has purchased an alert and notification system for use by the St. Lucie and Martin County Public Safety/Emergency Management Directors in alerting the population of the need to possibly take protective actions. The system consists of 90 electronic sirens located throughout the Plume Exposure Pathway EPZ. These electronic sirens have public address capability for voice messages. Upon sounding the sirens, the affected public, keyed through the public information program, should turn on their radios to the local Emergency Alert System (EAS) radio station and await emergency information and instructions. Backup Alert Notification System for the St. Lucie Nuclear Power Plant is achieved through physical Route Altering, which is contained in the Radiological Response Plans and procedures for the State of Florida and Offsite response Organizations in the EPZ that have been approved by FEMA in accordance with Title 44 of the Code of Federal Regulations (CFR) 44CFR350.12 and 14.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.3 Radiological Exposure Control

1. On-site Radiation Protection Program

An objective of emergency response is to minimize radiation exposure to individuals both on-site and off-site. Situations may arise, however, when observance of this goal is inconsistent with personnel or plant safety. In anticipation of such needs, guidelines have been established for emergency conditions. The guidelines on which the emergency radiation protection program is based are stated below.

Exposure to emergency response personnel should be maintained As Low As Reasonably Achievable (ALARA). Actions taken during an emergency should take into consideration the amount of exposure required to accomplish the task verses the potential benefit to the public health and safety.

Conditions may warrant re-entry into high radiation areas leading to exposure in excess of the regulatory limit. Except for rescue of personnel (life-saving only), authorization must be given in advance by the Emergency Coordinator (EC) in consultation with the TSC HP Supervisor. If time permits the EC should obtain concurrence from the Recovery Manager (if the EOF is operational). In any case where regulatory limits have been exceeded the EC shall notify the RM of the event.

For those remote circumstances involving an event in progress, and obtaining EC approval will result in leaving the accident scene or decrease the victim(s) chance of survival, lifesaving actions may be performed without obtaining EC approval. The EC shall be notified immediately following the rescue operation.

Re-entry personnel that have been selected/chosen to exceed regulatory exposure limits should be volunteers, broadly familiar with the risks involved (radiosensitivity of fetuses, effects of acute exposures, etc.), and whose normal duties have trained them for such missions.

EPA 400, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," EPA 400-R-92-001 states that "To assure adequate protection of minors and the unborn during emergencies, the performance of emergency services should be limited to non-pregnant adults." FPL endorses this guidance; however, FPL recognizes that it is the right of the worker to make the decision to perform as an on-site emergency worker, understanding the potential risks involved.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.3 1. On-site Radiation Protection Program (continued)

For the following missions, (1) the exposure limit is:	TOTAL DOSE(2) (TEDE)	THYROID(3) (CDE)
Performance of actions that would not directly mitigate the event, minimize escalation, or minimize effluent releases.	5 REM	50 REM
Performance of actions that mitigate the escalation of the event, rescue persons from a <u>non-life</u> threatening situation, minimize exposures or minimize effluent releases.	10 REM	100 REM
Performance of actions that decrease the severity of the event or terminate the processes causing the event in an attempt to control effluent releases to avoid extensive exposure of large populations. Also, rescue of persons from a <u>life-threatening</u> situation.	25 REM	250 REM
Rescue of persons from a <u>life-threatening</u> situation. (Volunteers should be above the age of 45.)(4)	(5)	(5)

NOTE 1

Both Total Dose (TEDE) and Thyroid Dose (CDE) should be used for purposes of controlling exposure.

NOTE 2

Protective clothing, including respirators should be used where appropriate.

- (1) Exposure limits to the lens of the eye are 3 times the Total Dose (TEDE) values listed.
- (2) Total Dose (TEDE) is the total dose from both external and internal (weighted) sources - Total Effective Dose Equivalent.
- (3) Thyroid Dose (CDE) commitment from internal sources - Committed Dose Equivalent. The same dose limits also apply to other organs (CDE), skin (Shallow Dose Equivalent) and extremities (Extremity Dose Equivalent).
- (4) Volunteers with full awareness of risks involved including numerical levels of dose at which acute effects of radiation will be incurred and numerical estimates of the risk of delayed effects.
- (5) No upper limit for Total Dose (TEDE) and/or Thyroid Dose (CDE) has been established because it is not possible to pre-judge the risks that one person should be allowed to take to save the life of another. Also, no specific limit is given for thyroid dose since in the extreme case, complete thyroid loss might be acceptable sacrifice for a life saved. This should not be necessary if respirators and/or thyroid protection for rescue personnel are available as the result of adequate planning.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.3 2. Dose Records

FPL Nuclear Division procedures provide for conducting the personnel dosimetry program. The company has the capability of determining personnel radiation exposures on a 24 hour per day basis. Dose records for all individuals exposed to ionizing radiation at FPL's facilities are maintained.

All emergency response personnel under the authority of FPL who will potentially be exposed to radiation in the course of their duties will be monitored by the plant radiation exposure monitoring program. Personnel in this category will be issued the appropriate personal dosimetry devices.

Since, by their very nature, emergency exposures requiring immediate action are not planned, they are not controlled as a Planned Special Exposure. Dose received from exposure under emergency conditions will be added to the dose received during the current year, prior to the emergency, to determine compliance with the occupational dose limits in 10 CFR 20.

Doses above regulatory limits will require reporting pursuant to 10 CFR 20.2202 and 20.2203. Any dose in excess of the annual limits specified in Section 20.1201(a) will be accounted for in accordance with 10 CFR 20.1206(e). If an individual exceeds any of these limits, then that individual will not be available for additional dose under 20.1201(a).

3. Contamination Control and Decontamination Procedures

A personnel decontamination washroom and shower room with chemical decontamination agents is provided on the ground floor of the Auxiliary Buildings. Except in cases of serious injury, accepted decontamination practices will be employed on-site. Life endangering injuries or injuries such as extensive burns, serious wounds, or fractures shall receive prompt attention in preference to decontamination. Personnel with injuries involving radiation or radioactive contamination will be handled as discussed in Section 2.5.1. Decontamination of uninjured personnel must be attempted at contamination levels greater than minimum detectable activity as defined in Health Physics procedures.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.3 3. Contamination Control and Decontamination Procedures (continued)

Any item of equipment, once having been taken inside a controlled area, requires a survey for possible contamination prior to its removal from the controlled area. Equipment regularly required within a controlled area will be maintained within the controlled area. 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 if contamination levels are less than 1,000 dpm/100 cm². Should contaminated equipment be discovered, it will be stored and either decontaminated or disposed of in accordance with Plant procedures.

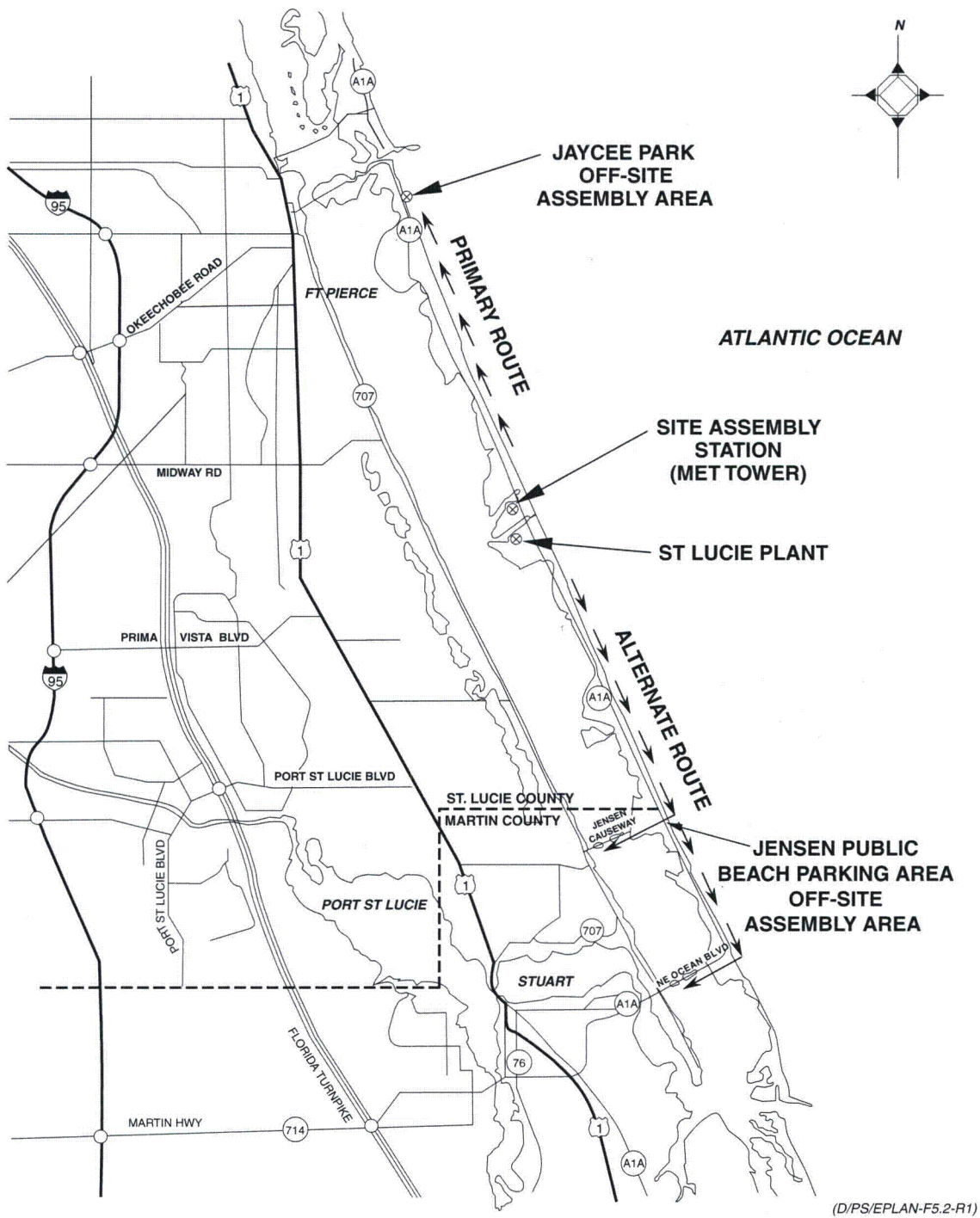
Food for emergency workers will be brought in from off-site, if necessary. The plant drinking water is obtained from the Ft. Pierce water supply. It is unlikely that ingestion of contaminated food or water will occur.

Frequent surveys of habitable areas utilized for emergency response (i.e. Control Room, TSC and OSC) will be performed to assure these areas remain uncontaminated. Special attention to drinking water and food supplies will be given to assure that these supplies remain uncontaminated.

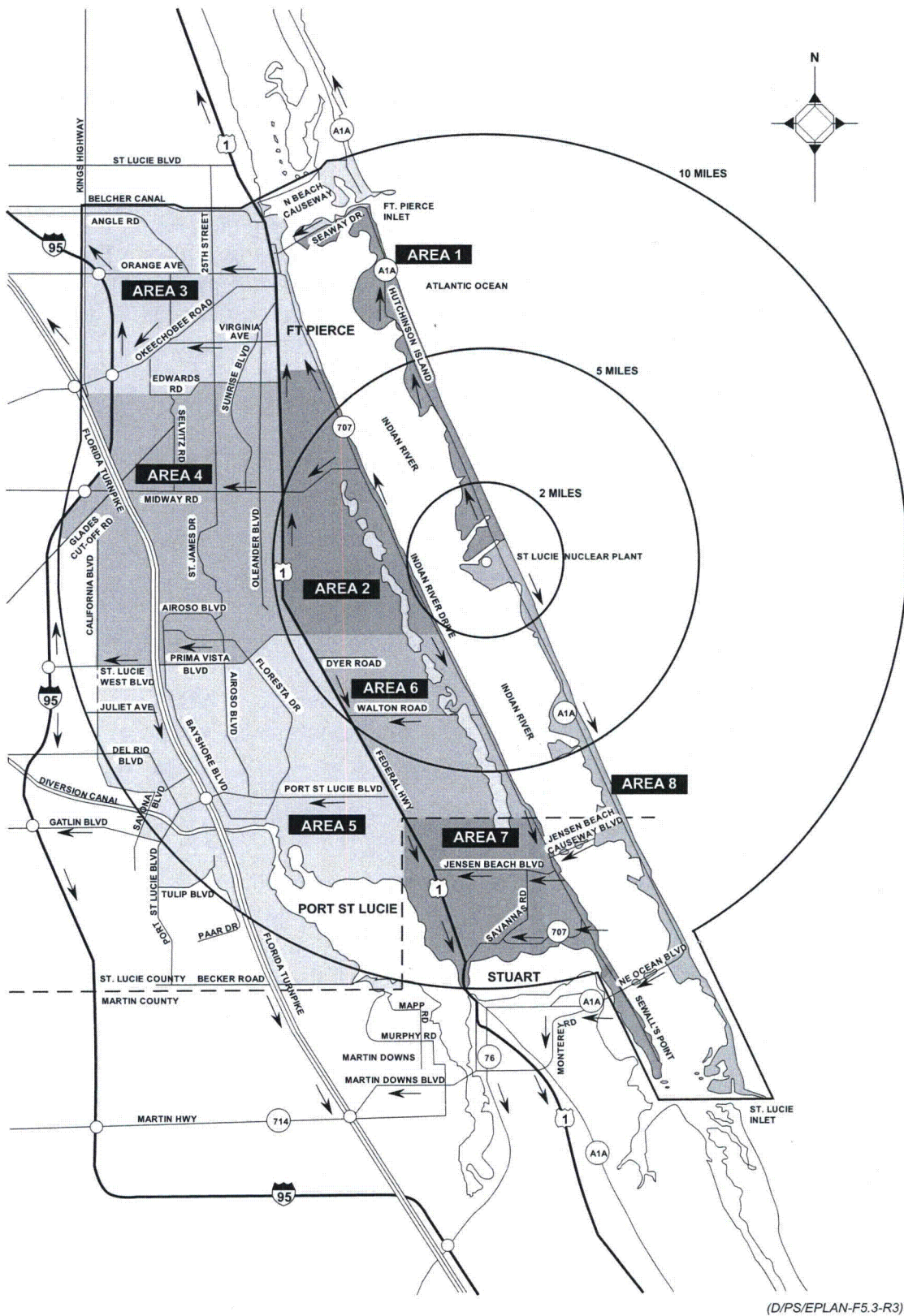
4. Radioactive Wastes

Radioactive wastes (resins, trash, etc.) accumulated during an emergency will be handled by normal plant procedures. Any special circumstances will be handled on a case-by-case basis.

**FIGURE 5-2
SITE EVACUATION ROUTES**



**FIGURE 5-3
GENERAL PUBLIC EVACUATION ROUTES**



5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.4 Recovery and Re-entry

1. On-site

Once the hazard potential has passed, steps must be taken to recover from the incident. All actions should be preplanned in order to limit exposures. Access to the area will be controlled and personnel exposures will be documented.

The Recovery Manager/EC has the responsibility for determining when the on-site conditions are stable and it is appropriate to enter the recovery phase. The Recovery Organization consists of an augmented Expanded Emergency Response Organization consisting of existing FPL emergency personnel and additional resources from both the company and contracted agencies. The Emergency Response Managers would continue their assigned duties with additional personnel to use as necessary. The Recovery Manager (or EC) will evaluate the status of the plant by reviewing all current and pertinent data available from emergency response and/or monitoring teams. The recovery phase will begin only when plant conditions are stable and the following guidelines are met:

1. Radiation levels in all in-plant areas are stable or decreasing with time.
2. Releases of radioactive materials to the environment from the plant are under control or have ceased.
3. Any fire, flooding, or similar emergency conditions are controlled or have ceased.
4. The reactor is in a stable condition.

At the time of initiating activities to enter the recovery phase, the Recovery Manager will be responsible for informing all applicable agencies (e.g., Federal, State, and local agencies) that on-site conditions have stabilized and activities for recovering from the incident can now begin. Once these agencies and the Emergency Control Officer (ECO) have been informed, the Recovery Manager has the authority to de-escalate the emergency classification.

Planned recovery actions which may result in a radioactive release will be evaluated by the Recovery Manager and his/her staff in advance. Such planning and data pertaining to the possible release will be reported to the appropriate off-site emergency response organizations and agencies.

5. RESPONSE TO ACCIDENT CONDITIONS (continued)

5.4 1. On-site (continued)

Re-entry into an affected area may be required before entering the recovery phase. Re-entry into an evacuated area will be made by the Emergency Response Organization personnel when required for one or more of the following reasons:

1. To ascertain that all personnel who were in affected area have been evacuated, or to search for unaccounted personnel.
2. To assist in evacuating injured or incapacitated personnel from the affected area.
3. To perform operations which may mitigate the effect of the emergency or hazardous condition.
4. To determine the nature and extent of the emergency and/or radiological conditions.
5. To establish definite personnel exclusion area boundaries.

Re-entry to the affected areas on-site will take place only under the authority of the Emergency Coordinator. The TSC HP Supervisor is responsible for evaluating the existing emergency conditions and informing the Emergency Coordinator of the advisability of re-entry. For emergencies inside the Radiation Controlled Area (RCA), the TSC HP Supervisor will supervise the initial entry of the Emergency Response Organization personnel and all subsequent entries until radiation areas have been properly marked. More detailed guidance for re-entry teams is contained in plant procedures.

2. Off-site

State and County officials would be in control of recovery and re-entry off-site. Population exposure estimates are discussed in the State plan. Chapter 11 discusses the Ingestion Exposure Pathway EPZ. The State Plan (Chapter 13, Recovery and Re-entry) also discusses population dose measurement.

6. PUBLIC INFORMATION

6.1 Preparatory Public Information Program

1. Purpose

The purpose of the preparatory public information program is to inform the public of how they would be notified and what their actions should be in a radiological emergency.

2. Program Execution

Florida Power & Light Company has the responsibility for conducting the public information program with the support from the State Division of Emergency Management and the St. Lucie County and Martin County Departments of Public Safety.

Chapter 7 of the State Plan discusses the preparatory public information and education program. Education will be provided on an annual basis to local residents, transients, and news media in the manner described in Chapter 7, Section VII of the State Plan.

6.2 Florida Power & Light Company Emergency Public Information Program

This section delineates the organization, public information network, and facilities that would be made available as required in an emergency.

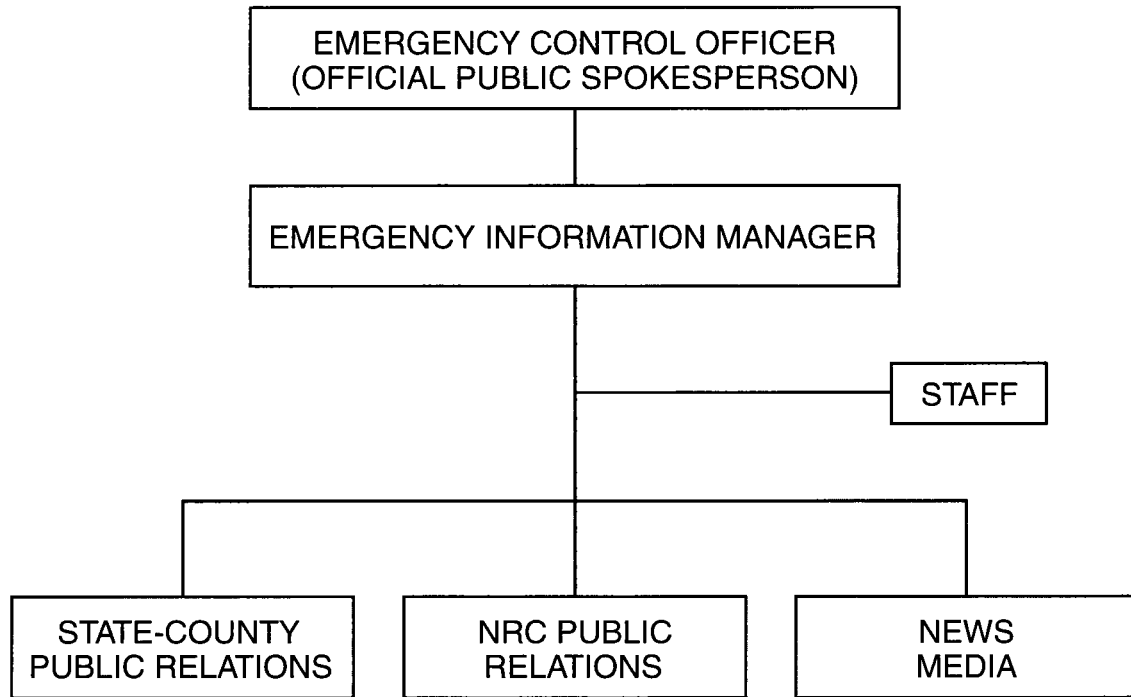
1. Organization

The members of the emergency public information organization (see **Figure 6-1**) and their respective responsibilities are as follows:

Emergency Information Manager (EIM)

The EIM is a senior manager or designated member of the Corporate Communications Department experienced in media relations, having knowledge of nuclear plant operations. He/she is the FPL official responsible for coordinating dissemination of information to the public via the news media. Insofar as practical, the EIM will work with the NRC, State, and local news media representatives to effect coordinated releases and public appearances. He/she will work with other company officials to develop formal statements and responses. All press releases, other than routine "updating" of data coming from the Emergency Operations Facility, should originate with or be cleared by the EIM. He/she will assure that exchange of information among designated spokespersons is accomplished in a timely manner, when possible.

**FIGURE 6-1
PUBLIC INFORMATION INTERFACES**



(D/PS/EPLAN-F6.1-R34)

6. PUBLIC INFORMATION (continued)

6.2 1. Organization (continued)

Nuclear Information Staff

A staff of public information and technical personnel will be assigned as needed to the Emergency News Center. Their responsibilities will be to:

1. Provide technical briefings to the press.
2. Inform company employees through a newsletter, bulletin board statements, or other in-place networks.
3. Inform the industry, so other companies both in the United States and overseas can deal with questions as they arise from their local media.
4. Prepare background material for features, historical context, profiles, etc.
5. Handle the photographic needs of the company.
6. Record or transcribe all press conferences and other official proceedings for the benefit of company management, official agencies and the news media.
7. Accredited and escort members of the press.
8. Provide its own stenographic and typing services for news releases, photo captions, reports, transcripts, etc.
9. Provide reference services for maintaining files of releases and photos, obtaining newspapers, monitoring wire services and news broadcasts, logging all clippings.

The staff of the Florida Power & Light Company Corporate Communications Department may be augmented by personnel from other utilities, consultants, or universities.

2. Emergency News Center (ENC)

The St. Lucie Plant Emergency News Center (ENC) is adjacent to the EOF. The Emergency Information Manager will report to the EOF. A designated ENC supervisor and his/her staff will man the ENC when the EIM deems it appropriate. The ENC/EOF is located at the intersection of State Route 712 (Midway Road) and I-95 approximately 10 ½ miles west of St. Lucie Plant.

6. PUBLIC INFORMATION (continued)

6.2 3. News Media Provisions

Florida Power & Light Company, in cooperation with the State of Florida and the risk counties, conducts an annual program to acquaint the news media with the emergency plans, information concerning nuclear power and points of contact for release of public information in an emergency.

In the event of an emergency, representatives of the news media will be provided space in the Emergency News Center for work and interview purposes.

4. Written Message for the Public

Sample formats that may be used for release of information by FPL to the public via the news media appear in **Tables 6-1 through 6-7**.

These releases include initial statements for each class of emergency and follow-up statements for the Alert class and higher.

6.3 Rumor Control

FPL will coordinate information exchange with State and County officials. This coordination will include awareness of media releases.

The timely exchange of information among designated spokespersons will aid in dispelling most rumors. In written material which is disseminated annually to the public in the Plume Exposure Pathway EPZ, means for obtaining timely and accurate information is provided. Chapter 7, Section VI of the State Plan also discusses Rumor Control.

**TABLE 6-1
FPL PRESS STATEMENT**

SAMPLE

Number: _____

Date: ____/____/____

Time: _____

Florida Power & Light Company
Emergency News Center
9001 West Midway Road
Ft. Pierce, FL 34945
Phone: (____) _____ - _____

NEWS RELEASE

UNUSUAL EVENT

HUTCHINSON ISLAND - Florida Power & Light Company has alerted State and Local Officials and the Nuclear Regulatory Commission that an "Unusual Event" has occurred at its St. Lucie Nuclear Power Plant located south of Ft. Pierce.

According to initial reports, the event related to (give plant/unit specific data)
The situation was reported at (time).

Due to the nature of the event, FPL officials have determined that:

(Options)

- a. The unit can remain operational at this time without posing a health or safety hazard to plant employees or the general public;
- b. The power levels at the plant will be systematically reduced in order to investigate the extent of the problem. Full shutdown is expected later today; or
- c. The unit will be immediately brought off-line and orderly shutdown procedures will be initiated.

All safety systems are operating normally and officials have stated that no (or no significant) radioactivity has been released as a result of this event. No further information is available at this time. However, news media will be kept informed of the plant's status as it becomes available.

**TABLE 6-2
FPL PRESS STATEMENT**

SAMPLE

Number: _____

Date: ____/____/____

Time: _____

Florida Power & Light Company
Emergency News Center
9001 West Midway Road
Ft. Pierce, FL 34945
Phone: (____) _____ - _____

NEWS RELEASE

ALERT

HUTCHINSON ISLAND - St. Lucie Nuclear Power Plant has declared an Alert, based on problems at Unit #____.

The unit had been (still operational), (under gradual power reduction), (in a full-scale, orderly shutdown following _____ (give data relating to alert) _____

FPL officials called for the Alert and have notified appropriate State, Local and Federal Officials.

Option 1 (radiation release)

Plant operators have detected small amounts of radiation being released to the atmosphere as a result of the problem. The minor releases are confined to the plant site and pose no health or safety hazard to FPL employees or the general public. Radiation monitoring teams have been deployed as a routine precaution.

Option 2 (no radiation release)

Plant operators report that no radiation has been released from the unit as a result of the problem. Monitoring teams have been deployed at the plant site as a routine precaution.

All Safety Systems are operating and the unit has been placed in an orderly shutdown mode as officials continue to investigate the problem. FPL officials caution that no public action is required and no health or safety problem exists at this time.

**TABLE 6-3
FPL PRESS STATEMENT**

SAMPLE

Number: _____

Date: ____/____/____

Time: _____

Florida Power & Light Company
Emergency News Center
9001 West Midway Road
Ft. Pierce, FL 34945
Phone: (____) _____ - _____

NEWS RELEASE

SITE-AREA EMERGENCY

HUTCHINSON ISLAND - Florida Power & Light Company has announced that a Site Area Emergency exists at St. Lucie Nuclear Power Plant. At _____ (a.m./p.m), all plant employees, except those with emergency response duties, were ordered to evacuate the plant site.

Plant officials called for the evacuation of non-emergency employees as a precautionary measure due to (insert plant specific data, is known). There are still approximately 90 personnel remaining on the plant site located in the Control Rooms, Technical Support Center, and Operational Support Center. This includes plant management, operators for both Units, and personnel from Health Physics, Chemistry, Maintenance, and Engineering departments. The cause and nature of the problem are being investigated and further details are not available at this time.

Option 1 (radiation release)

Monitoring equipment at the plant has detected (small/additional) amounts of radiation being released to the atmosphere as a result of the present situation at Unit # ____.

Option 2 (no radiation release)

No radiation releases have been detected as a result of the situation at Unit # ____.

The plant is continuing shutdown procedures and emergency cooling of the reactor core is continuing. Persons in the immediate vicinity of the plant should continue to monitor radio and television broadcasts for the latest information.

**TABLE 6-4
FPL PRESS STATEMENT**

SAMPLE

Number: _____

Date: ____/____/____

Time: _____

Florida Power & Light Company
Emergency News Center
9001 West Midway Road
Ft. Pierce, FL 34945
Phone: () _____ - _____

NEWS RELEASE

GENERAL EMERGENCY

HUTCHINSON ISLAND - Florida Power & Light Company, has notified State, County and Federal authorities, that a General Emergency exists at its St. Lucie Nuclear Power Plant as a result of escalating problems at Unit #____.

Persons within a 10 mile radius of the plant are advised to monitor radio and television stations for more information. Please follow all instructions provided through emergency broadcast services.

At this time, the plant is experiencing (significant, but controlled), (significant, uncontrolled), (small, but controlled), (small, uncontrolled), (no) releases of radiation to the environment.

Non-essential plant personnel have left the site.

The public is advised to monitor and follow emergency broadcast messages on radio and television.

**TABLE 6-5
FPL PRESS STATEMENT**

SAMPLE

Number: _____

Date: ____/____/____

Time: _____

Florida Power & Light Company
Emergency News Center
9001 West Midway Road
Ft. Pierce, FL 34945
Phone: (____) _____ - _____

NEWS RELEASE

LOSS OF POWER/CORE DAMAGE/RADIATION PLUME

(Possible Follow-Up to General Emergency)

HUTCHINSON ISLAND - Significant equipment problems and loss of power to operate reactor core cooling systems have resulted in loss of coolant and partial uncovering of reactor fuel at St. Lucie Nuclear Unit #_____, FPL plant operators have reported.

Additional emergency systems are being employed. However, monitoring teams are registering radiation in the atmosphere around the plant site. Weather conditions are moving a radiological plume in a _____ direction.

The public is advised to monitor emergency broadcast messages on radio and television.

**TABLE 6-6
FPL PRESS STATEMENT**

SAMPLE

Number: _____

Date: ____/____/____

Time: _____

Florida Power & Light Company
Emergency News Center
9001 West Midway Road
Ft. Pierce, FL 34945
Phone: () _____ - _____

NEWS RELEASE

EMERGENCY NEWS CENTER ACTIVATED

HUTCHINSON ISLAND - The St. Lucie Emergency News Center is now operating. Information about the nuclear emergency will be provided at this facility, located at Midway Road and I-95, just west of Ft. Pierce. All affected agencies - County, State and Federal - will have representatives at the Emergency News Center to provide information about the emergency.

The Emergency News Center can be contacted by calling _____.

IMPORTANT

This telephone number is for news media only and
should NOT be announced to the general public.

**TABLE 6-7
FPL PRESS STATEMENT**

SAMPLE

Number: _____

Date: ____/____/____

Time: _____

Florida Power & Light Company
Emergency News Center
9001 West Midway Road
Ft. Pierce, FL 34945
Phone: () - _____

NEWS RELEASE

MEDICAL EMERGENCY

HUTCHINSON ISLAND - Florida Power & Light Company has reported that one of its workers at the St. Lucie Nuclear Power Plant has been injured and requires medical treatment.

Preliminary reports indicate the employee suffered (state injury) while working in the plant's (location).

The worker has received some radioactive contamination, but further information of (his/her) condition is not available at this time.

Specialized equipment and protective procedures are in place to insure proper handling of any radioactive contamination.

7. MAINTAINING EMERGENCY PREPAREDNESS

7.1 Exercises and Drills

1. Definitions

An exercise is an event that tests the integrated capability of a major portion of the basic elements existing within the Radiological Emergency Plan for St. Lucie Plant. An exercise normally includes mobilization of State and local governmental personnel and resources adequate to verify the capability to respond to an accident scenario.

A drill is a supervised instruction period aimed at testing, developing, and maintaining skills in a particular operation. A drill is often a component of an exercise. A drill should be evaluated by the supervisory personnel conducting the drill.

2. Purpose

Periodic exercises and drills will be conducted in order to test the state of emergency preparedness of participating personnel, organizations, and agencies. Each exercise or drill will be conducted to:

1. Ensure that participants are familiar with their respective duties and responsibilities.
2. Verify the adequacy of the Emergency Plan and Emergency Plan Implementing Procedures.
3. Test the communications network and systems.
4. Check the availability of emergency supplies and equipment.
5. Verify the operability of emergency equipment.

The results of the exercises will form the basis for prescribing action to eliminate identified deficiencies.

3. Planning

The site Emergency Preparedness Manager will be responsible for the planning, scheduling, and coordinating of exercises involving off-site agencies. A sample format for exercise scenarios appears in **Table 7-1**. All exercises and drills involving the plant are subject to the approval of plant management.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.1 Exercises and Drills (continued)

3. Planning (continued)

When an exercise is to be conducted, the site Emergency Preparedness Manager, in conjunction with plant management, will:

1. Schedule a date for the exercise in coordination with the primary State and County emergency response agencies.
2. Obtain the approval of plant management.
3. Coordinate all FPL efforts with other participating personnel, organizations, and agencies.
4. Offer Federal, State, and local officials the opportunity to observe the exercise.
5. Assign personnel to prepare a scenario.
6. Assign personnel to assist in control and evaluation of the exercise.
7. Discuss and evaluate the exercise with observers and principal participants.
8. Ensure that for all identified deficiencies, corrective measures are recommended.
9. Prepare and submit documentation in accordance with plant procedures.

An Emergency Preparedness Coordinator may complete or coordinate completion of any of the above items. The site Emergency Preparedness Manager shall retain oversight and accountability through the requirements of EPIP-13, "Maintaining Emergency Preparedness - Emergency Exercises, Drills, Tests and Evaluations."

These exercises will simulate emergency conditions and may be scheduled such that two or more drills are conducted simultaneously. The site Emergency Preparedness Manager will normally notify the off-site emergency response organizations and agencies at least 30 days in advance of the scheduled date of an exercise.

TABLE 7-1
EXAMPLE SCENARIO FORMAT
(Page 1 of 2)

1. Basic objective(s) of exercise
2. Logistics
 - 2.1 Date(s)
 - 2.2 Time period
 - 2.3 Location(s)
 - 2.4 Participating organizations
3. The simulated events
4. Time schedule of real and simulated events
5. Narrative summary describing the conduct of the exercises

NOTE

5.1 through 5.5 are examples of subjects that might be discussed in Section 5.0 of the scenario.

- 5.1 Simulated casualties
- 5.2 Off-site fire-fighting assistance
- 5.3 Rescue of personnel
- 5.4 Radiological monitoring deployment
- 5.5 Public information activities
6. Duties of controllers
 - 6.1 Specific observer assignment by area
 - 6.2 Material provided to observers (i.e. check lists)
 - 6.3 Pre-drill meeting
 - A. Date
 - B. Time
 - C. Location

TABLE 7-1
EXAMPLE SCENARIO FORMAT
(Page 2 of 2)

7. Critique/evaluation

7.1 Date

7.2 Time

7.3 Location

7.4 Suggested Participants

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.1 4. Conduct of Exercises, Drills and Tests (continued)

1. Exercises (Integrated Drills)

A radiological emergency response exercise will be conducted at least once every two calendar years to demonstrate the effectiveness of the Emergency Plan. Any exercise that will provide for coordination with and participation of off-site emergency response personnel, organizations, and agencies including those of Federal, State, and local governments will escalate to a Site Area Emergency or General Emergency. The exercise scenario will be varied from year to year such that all major elements of the Plan are tested at least every 8 years.

The major elements that should be tested include the following:

- Off hours staffing (6 P.M. - 4 A.M.)
- Activation of Emergency News Center
- Use of fire control teams
- Use of medical support personnel
- Use of Security personnel for prompt access to emergency equipment or support
- Use of one or more portions of backup communications for notification
- Field monitoring
- Capability for determining the magnitude and impact of the particular components of a release
- Assembly and accountability
- Initial recovery planning activities

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.1 4. Conduct of Exercises, Drills and Tests (continued)

1. Exercises (Integrated Drills)

Additionally, in each eight calendar year exercise cycle, the content of scenarios during drills and exercises must provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to respond to the following scenario elements:

- hostile action directed at the plant site,
- no radiological release or an unplanned minimal radiological release that does not require public protective actions,
- an initial classification of or rapid escalation to a Site Area Emergency or General Emergency,
- implementation of strategies, procedures, and guidance developed under 10CFR50.54(hh)(2), and
- integration of offsite resources with onsite response.

This emergency response exercise will be critiqued by Florida Power & Light Company controller/evaluators and other evaluators, as appropriate, from Federal, State, and local agencies.

During the interval between biennial exercises, adequate emergency response capabilities will be maintained by conducting drills, including at least one drill involving a combination of some of the principal functional areas of emergency response capabilities. The principal functional areas of emergency response include activities such as management and coordination of emergency response, accident assessment, protective action decision-making, and plant system repair and corrective actions.

During this off-year drill, activation of all of the emergency response facilities (TSC, OSC, EOF) would not be necessary, there would be an opportunity to consider accident management strategies, supervised instruction would be permitted, operating staff would have the opportunity to resolve problems (success paths) rather than have controllers intervene, and the drills could focus on on-site training objectives.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.1 4. Conduct of Exercises, Drills and Tests (continued)

2. Radiological Monitoring Drill

A radiological monitoring drill will be conducted at least once every calendar year. These drills will include collection and analysis of sample media (i.e. air). As an integral part of this annual drill, communications and the understanding of messages between the off-site monitoring team(s) and the TSC HP Supervisor will be tested. Health Physics Department personnel will participate in health physics drills semi-annually and one of the semi-annual drills may be incorporated into the radiological monitoring drill.

As indicated in Chapter 14, Section III of the State Plan, off-site radiological monitoring drills will be conducted and these drills will involve the collection of sample media.

3. Medical Emergency Drill

A medical emergency drill involving a simulated contaminated individual, with provisions for activation of the plant First Aid Team will be conducted at least once every calendar year. Participation by local support services (i.e., ambulance and off-site medical treatment facility) will be tested separately once per year or as part of the annual medical drill.

4. Hostile Action Based (HAB) Drills/Exercises

Hostile Action Based drills will be conducted to support the exercise (Integrated Drill) schedule.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.1 4. 5. Fire Emergency Drill

Fire drills are conducted in accordance with 10 CFR 50, Appendix R, III.I.3. The Fire Protection Program is described in greater detail in plant administrative procedures.

6. Communications Tests and Drills

Communications with State and local governments within the Plume Exposure Pathway Emergency Planning Zone (EPZ) will be tested monthly. Communications with the NRC via the Emergency Notification System (ENS) will be tested monthly. On an annual basis, communications to the State EOC, St. Lucie and Martin County EOCs will be tested. As part of the annual test certain information will be exchanged. It will be determined whether or not the content of the drill messages was understood. The annual drill may be performed as part of an exercise.

As indicated in Chapter 14, Section III of the State Plan, the State conducts communications drills at least annually. These drills include "communications between the nuclear power plants, State, and local emergency operation centers and field assessment teams...". Chapter 6 of the State Plan indicates the equipment tested during drills.

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.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.1 5. Evaluation

During a drill or an exercise, controllers may take measures in response to actions taken by the participants that might affect the planned outcome (objective of the drill or exercise). Minor errors in procedures, techniques or inappropriate prompting by controllers will be noted and discussed during the post-drill/exercise evaluation.

Following an exercise, the site Emergency Preparedness Manager, plant management, FPL controller/evaluators, and principal participants in the exercise will discuss and evaluate the exercise. Drill evaluations will also be conducted, though personnel involvement may be different.

The evaluation should be based on the ability of participants to follow emergency procedures, the adequacy of emergency procedures, and the adequacy of emergency equipment and supplies. Plant management and staff will be responsible for recommending necessary changes in the Emergency Plan and/or Emergency Plan Implementing Procedures (EPIPs) to the site Emergency Preparedness Manager. The site Emergency Preparedness Manager or designee in Emergency Preparedness, is responsible for making changes to the Emergency Plan and/or EPIPs.

7.2 Emergency Response Training

1. Objectives

The primary objectives of emergency response training are as follows:

1. Familiarize appropriate individuals with the Emergency Plan and related Emergency Plan Implementing Procedures (EPIPs).
2. Instruct individuals in their specific duties to ensure effective and expeditious action during an emergency.
3. Periodically present significant changes in the scope or content of the Emergency Plan.
4. Provide refresher training to ensure that personnel are familiar with their duties and responsibilities.
5. Provide the various emergency organization groups with the required training that will ensure an integrated and prompt response to an emergency situation.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.2 2. Training of On-site Emergency Response Organization (ERO) Personnel

Training programs have been established for personnel working at the plant site. The programs include initial indoctrination and subsequent retraining.

The training program for members of the on-site ERO will include practical drills, in which each individual participating in the drill demonstrates an ability to perform assigned emergency functions. Participation in a drill or exercise is not required for initial training qualification in the ERO. Training requirements are delineated in EPIP-12, "Maintaining Emergency Preparedness - Radiological Emergency Plan Training."

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 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.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.2 2. Training of On-site Emergency Response Organization (ERO) Personnel (continued)

The following provides a description of the training provided to personnel filling the indicated positions.

1. Emergency Coordinator

- a. Interpretation of plant and field data and how it relates to emergencies and their classification (i.e. Emergency Action Level (EAL) determination per Chapter 3).
- b. Prompt and effective notification methods, including the types of communication systems.
- c. Method of activating the Florida Power & Light Company Emergency Response Organization (ERO).
- d. The methods used for estimating radiation doses and recommending off-site protective actions.
- e. Emergency Plan familiarization.
- f. Emergency Plan Implementing Procedures (EPIPs) familiarization.
- g. Communications and record-keeping methods.
- h. Accident assessment and corrective action (licensed operators only).

2. Shift Technical Advisor

- a. Emergency Plan familiarization
- b. Emergency Plan Implementing Procedures (EPIPs) familiarization.
- c. Technical Specifications (in-depth understanding)
- d. Specialized training in power plant and reactor specific core operating characteristics (normal and abnormal)
- e. Familiarization with other related plant programs, plans, and procedures with emphasis on accident assessment techniques.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.2 2. 3. Technical Support Center On-site Staff

- a. Emergency Plan familiarization
- b. Emergency Plan Implementing Procedures (EPIPs) familiarization.
- c. Communications and record-keeping methods
- d. Training for the various technical personnel that make up the TSC staff with emphasis on accident assessment and corrective action.

4. Other Emergency Responders

1. Health Physics Personnel

- a. Use of air sampling equipment
- b. Performance of radiation/contamination surveys
- c. Determination of air activity levels, and stay times based on DAC hours
- d. Determination of radiation levels.
- e. Emergency Plan familiarization through HP Emergency Procedures (200 series)
- f. Record-keeping methods
- g. In-depth knowledge of personnel and field monitoring/analyzing techniques
- h. Communications and coordination

2. Security Personnel

- a. Emergency Plan familiarization through the Emergency Plan Implementing Procedures.
- b. Personnel accountability procedures
- c. Site ingress and egress control procedures
- d. Deployment of Security Personnel
- e. Communications and coordination

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.2 2. 4. 3. First Aid Team

- a. Emergency Plan familiarization through Emergency Plan Implementing Procedures familiarization
- b. Communications and coordination
- c. Description, storage location, and application of supplies and equipment
- d. Sequential steps for the assessment of contamination levels and treatment of personnel injury
- e. Familiarization with personnel decontamination procedures
- f. Procedures for the evacuation of contaminated persons to off-site medical facilities
- g. Team members will satisfactorily complete the first aid portion of the American National Red Cross Standard (ANRCS) First Aid Course or equivalent and will re-qualify every three years. Requalification does not require completion of the CPR portion of the ANRCS course.

3. Training of FPL EOF Emergency Response Organization Personnel

The Site Training Manager is responsible for the conduct and documentation of initial training and annual retraining for FPL EOF Emergency Response Organization personnel.

1. Recovery Manager

- a. Prompt and effective notification methods, including the types of communication systems.
- b. Method of activating the Florida Power & Light Company off-site Emergency Response Organization.
- c. The methods used for estimating radiation doses and determining Protective Action Recommendations (PARs).
- d. Emergency Plan familiarization.
- e. Emergency Plan Implementing Procedures (EPIPs) familiarization.
- f. Familiarization with the Emergency Operations Facility and the Technical Support Center.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.2 3. Training of FPL EOF Emergency Response Organization Personnel (continued)

2. Emergency Control Officer, Emergency Information Manager, Governmental Affairs Manager, Emergency Security Manager, Emergency Technical Manager

- a. Emergency Plan familiarization
- b. Emergency Plan Implementing Procedures (EPIPs) familiarization

4. Training of Non-FPL Off-site Emergency Response Personnel

Off-site agencies who may be called upon to provide assistance in the event of an emergency shall be offered briefings annually. These briefings will discuss basic concepts in radiation protection, plant operations and security, emergency classification, protective action recommendations and emergency response as appropriate. The following groups will be offered these sessions:

- A. Fire and rescue
- B. Police
- C. Medical Support
- D. Principal decision makers for State and county emergency response agencies

1. Police and Fire Fighting Support

As indicated in Chapter 15, Figure 15-1 to the State Plan, police and fire fighting personnel will receive training and retraining. Chapter 15 describes the details of training.

2. Local Emergency Management Officials

As described in Chapter 15 of the State Plan, disaster preparedness personnel will receive training and retraining.

3. Emergency Action Levels (EALs) Review

On an annual basis, the Emergency Action Levels (EALs) shall be reviewed with State and local governmental authorities.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.3 Planning Effort Development

Overall authority and responsibility for radiological emergency preparedness and planning lies with the Chief Nuclear Officer. As described below, through his/her staff (at the Plant and at Juno Beach), the FPL emergency planning and preparedness program is implemented. Major responsibility in this area has been delegated to the site Emergency Preparedness Manager and has been described throughout this plan.

1. Emergency Plan Implementing Procedures (EPIPs)

Written procedures will be established, implemented, and maintained covering the activities associated with Emergency Plan implementation.

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 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.

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 Preparedness. All proposed changes to the Emergency Plan shall be reviewed by the On-site Review Group (ORG) and, prior to implementation, approved by the Vice President - St. Lucie 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 (CFAM).

The effective date of the revised Emergency Plan is determined by the site Emergency Preparedness Manager based on the Station work schedule and pre-implementation training, coordinated implementation with other documents and other appropriate considerations. The effective date should not exceed the approval date by more than thirty days.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.3 2. Review of the Emergency Plan and Emergency Plan Implementing Procedures (continued)

Changes to the EIPs are performed in accordance with plant procedures. EIPs are approved by the site Emergency Preparedness Manager unless changes are identified for evaluation by the On-site Review Group (ORG) with approval recommended to the Plant General Manager.

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.

3. Review of Changes with On-site Personnel

The Site Training Manager will ensure that on-site Emergency Response Organization personnel are informed of relevant changes in the Emergency Plan and Emergency Plan Implementing Procedures.

4. Review of Changes with Off-site Personnel

Periodic correspondence and/or meetings will be held to inform off-site FPL emergency support personnel of changes in the Emergency Plan and Emergency Plan Implementing Procedures.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.3 5. Audits

The FPL Quality Assurance Department will perform an independent audit of the Emergency Preparedness Program. The audits will verify compliance with federal regulations to include evaluation of the adequacy of the interfaces with State and Local governments, and of drills, exercises, capabilities and procedures. This audit shall be conducted either:

- 1) At least every 12 months, or
- 2) As necessary, based on an assessment against performance indicators, and as soon as reasonably practicable after a change occurs in personnel, procedures, equipment, or facilities that potentially could adversely affect emergency preparedness, but no longer than 12 months after the change. In any case, all elements of the Emergency Preparedness Program must be reviewed once every 24 months.

The part of the review involving the evaluation for adequacy of interface with State and Local governments must be available to the appropriate State and Local governments.

Plant management, Corporate Functional Area Manager (CFAM), and the Chief Nuclear Officer will receive audit reports. Corrective actions, as delineated in the Quality Assurance Manual, will be assigned.

The audit findings shall be retained for a minimum of 5 years.

6. Document Distribution

St. Lucie Plant Document Control is responsible for distribution of the Emergency Plan and Emergency Plan Implementing Procedures to identified personnel and to Emergency Response Facilities. Document Control also distributes the Emergency Plan to off-site agencies and organizations. The Emergency Plan Implementing Procedures provide sufficient information to assure a thorough understanding of the various emergency response duties and responsibilities. Appendix F contains a listing of the Emergency Plan Implementing Procedures. The locations where The State of Florida Radiological Emergency Management Plan is maintained are listed in Appendix D.

7. MAINTAINING EMERGENCY PREPAREDNESS (continued)

7.3 7. Emergency Preparedness Coordinator Training

Most training of FPL Emergency Preparedness Coordinators is through on-the-job training related to Plan preparation, periodic revisions, and drills and exercises for two nuclear facilities. Other training may be received through seminars, meetings, and discussions with other industry groups. FPL is a member of and participates in emergency planning programs sponsored by the Institute of Nuclear Power Operations (INPO), the Nuclear Energy Institute (NEI) and the Southeastern Utilities Emergency Planning Group (SUEPG).

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.

7.5 Letters of Agreement

Agreements with supporting agencies will be confirmed annually (by direct contact, telephone, or in correspondence). The Letters of Agreement (LOAs) will be updated every third year. Purchase orders/contracts will be renewed as required.

APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

HOT CONDITIONS LIST OF EFFECTIVE PAGES

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Annunciators & RCS Leakage & Fuel Clad & Tech Specs Basis.....	19	1
Annunciators & RCS Leakage & Fuel Clad & Tech Specs.....	20	3
Communications Basis.....	21	3
Communications.....	22	2
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H – Hazards and Other Conditions Affecting Plant Safety	24	1
Security & Control Room Evacuation & Natural or Man-Made Events Basis.....	25	1
Security & Control Room Evacuation & Natural or Man-Made Events.....	26	1
Natural or Man-Made Events Basis.....	27	1
Natural or Man-Made Events.....	28	1
Fire / Explosion & Toxic / Flammable Gas Basis.....	29	1
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APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

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Fission Product Barrier Degradation 1 / 2 / 3 Basis.....	11	3
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S – System Malfunctions	16	1
AC Power & Failure of Protection / Criticality & DC Power Basis.....	17	1
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Annunciators & RCS Leakage & Fuel Clad & Tech Specs Basis.....	19	1
Annunciators & RCS Leakage & Fuel Clad & Tech Specs.....	20	3
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Communications.....	22	2
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H – Hazards and Other Conditions Affecting Plant Safety	24	1
Security & Control Room Evacuation & Natural or Man-Made Events Basis.....	25	1
Security & Control Room Evacuation & Natural or Man-Made Events.....	26	1
Natural or Man-Made Events Basis.....	27	1
Natural or Man-Made Events.....	28	1
Fire / Explosion & Toxic / Flammable Gas Basis.....	29	1
Fire / Explosion & Toxic / Flammable Gas.....	30	1
Discretionary Basis.....	31	1
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APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

R - ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT		General Emergency		Site Area Emergency		Alert		Unusual Event	
RADIOLOGICAL EFFLUENT		RG1		RS1		RA1		RU1	
ABNORMAL RAD LEVELS		Off-site Dose Resulting from an Actual or IMMINENT Release of Gaseous Radioactivity Greater Than 1000 mrem TEDE or 5000 mrem Thyroid CDE for the Actual or Projected Duration of the Release Using Actual Meteorology. Pg. 6		Off-site Dose Resulting from an Actual or IMMINENT Release of Gaseous Radioactivity Greater Than 100 mrem TEDE or 500 mrem Thyroid CDE for the Actual or Projected Duration of the Release. Pg. 6		Any Release of Gaseous or Liquid Radioactivity to the Environment Greater Than 200 Times the ODCM for 15 Minutes or Longer. Pg. 6		Any Release of Gaseous or Liquid Radioactivity to the Environment Greater Than 2 Times the ODCM for 60 Minutes or Longer. Pg. 6	
						RA2		RU2	
						Damage to Irradiated Fuel or Loss of Water Level that Has Resulted or Will Result in the Uncovering of Irradiated Fuel Outside the Reactor Vessel. Pg. 8		UNPLANNED Rise in Plant Radiation Levels. Pg. 8	
						RA3			
						Rise in Radiation Levels Within the Facility That Impedes Operation of Systems Required to Maintain Safe Plant Safety Functions. Pg. 8			
FUEL PRODUCT BARRIER		FG1		FS1		FA1		FU1	
		Loss of ANY Two Barriers AND Loss or Potential Loss of the third barrier. Pgs. 12-14		Loss or Potential Loss of ANY two barriers. Pgs. 12-14		ANY Loss or ANY Potential Loss of EITHER Fuel Clad OR RCS. Pgs. 12-14		ANY Loss or ANY Potential Loss of Containment. Pgs. 12-14	
S - SYSTEM MALFUNCTIONS		AC POWER		SS1		SA5		SU1	
		Prolonged Loss of All Off-site and All On-Site AC Power to Emergency Buses. Pg. 18		Loss of All Off-site and All On-site AC Power to Emergency Buses for 15 minutes or longer. Pg. 18		AC Power Capability To Emergency Buses Reduced To A Single Power Source For 15 Minutes or Longer Such That Any Additional Single Failure Would Result in Station Blackout. Pg. 18		Loss of All Off-site AC Power to Emergency Buses for 15 Minutes or Longer. Pg. 18	
		SG2		SS2		SA2		SU2	
		Automatic Trip and All Manual Actions Fail to Shutdown the Reactor AND Indication of an Extreme Challenge to the Ability to Cool the Core Exists. Pg. 18		Automatic Trip Fails to Shutdown the Reactor AND Manual Actions Taken from the Reactor Turbine Generator Board (RTGB) are NOT Successful in Shutting Down the Reactor. Pg. 18		Automatic Trip Fails to Shutdown the Reactor AND the Manual Actions Taken from the Reactor Turbine Generator Board (RTGB) are Successful in Shutting Down the Reactor. Pg. 18		Inadvertent Critically. Pg. 18	
DC POWER				SS3					
				Loss of All Vital DC Power for 15 Minutes or Longer. Pg. 18					
ANNUNCIATORS				SS6		SA4		SU3	
				Inability to Monitor a Significant Transient in Progress. Pg. 20		UNPLANNED Loss of Safety System Annunciation or Indication in the Control Room With Either (1) a Significant Transient in Progress, or (2) Compensatory Indicators Unavailable. Pg. 20		UNPLANNED Loss of Safety System Annunciation or Indication in the Control Room for 15 Minutes or Longer. Pg. 20	
RCS LEAK								SU5	
								RCS Leakage. Pg. 20	
FUEL CLAD								SU4	
								Fuel Clad Degradation. Pg. 20	
TECH SPECS								SU2	
								Inability to Reach Required Shutdown Within Technical Specification Limits. Pg. 20	
COMM								SU6	
								Loss of All On-site or Off-site Communications Capabilities. Pg. 22	

General Emergency		Site Area Emergency		Alert		Unusual Event	
HG1		HS4		HA4		HU4	
HOSTILE ACTION Resulting in Loss of Physical Control of the Facility. Pg. 26		HOSTILE ACTION within the PROTECTED AREA Pg. 26		HOSTILE ACTION within the OWNER CONTROLLED AREA or Airborne Attack Threat Pg. 26		Confirmed SECURITY CONDITION or Threat Which Indicates a Potential Degradation in the Level of Safety of the Plant. Pg. 26	
		HS2		HA5			
		Control Room Evacuation Has Been Initiated and Plant Control Cannot be Established. Pg. 26		Control Room Evacuation has been Initiated. Pg. 26			
				HA1		HU1	
				Natural or Destructive Phenomena Affecting ESSENTIAL AREAS. Pgs. 25-28		Natural or Destructive Phenomena Affecting the PROTECTED AREA. Pgs. 25-28	
				HA2		HU2	
				FIRE or EXPLOSION Affecting the Operability of Plant Safety Systems Required to Establish or Maintain Safe Shutdown. Pg. 30		FIRE Within the PROTECTED AREA Not Extinguished Within 15 Minutes of Detection OR EXPLOSION within the PROTECTED AREA. Pg. 30	
				HA3		HU3	
				Access to an ESSENTIAL AREA is Prohibited Due To Release of Toxic, Corrosive, Asphyxiant or Flammable Gases Which Jeopardize Operation of Systems Required to Maintain Safe Operations or Safety Shutdown the Reactor. Pg. 30		Release of Toxic, Corrosive, Asphyxiant, or Flammable Gases Deemed Detrimental to NORMAL PLANT OPERATIONS. Pg. 30	
HG2		HS3		HA6		HU5	
Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of General Emergency. Pg. 32		Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of Site Area Emergency. Pg. 32		Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of an Alert. Pg. 32		Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of a Notification of Unusual Event (NOUE). Pg. 32	
						E-HU1	
						Damage to a loaded cask confinement BOUNDARY. Pg. 36	

H - HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY		E - EVENTS RELATED TO ISFSI	
SECURITY			
CR EVAC.			
NATURAL HAZARD EVENTS			
FIRE / EXPLOSION			
TOXIC / FLAMMABLE GAS			
SECONDARY			

INITIATING CONDITIONS MATRIX	

INITIATING CONDITIONS MATRIX

HOT CONDITIONS 2

EAL - HOT BASIS

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ST LUCIE PLANT CLASSIFICATION TOOL

HOT CONDITIONS 2

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RECOGNITION CATEGORY R
ABNORMAL RAD LEVELS / RADIOLOGICAL EFFLUENT

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
R - ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT	<p>RG1 - Basis:</p> <p>This IC addresses radioactivity releases that result in doses at or beyond the site boundary that exceed the Environmental Protection Agency Protective Action Guides (PAGs). Public protective actions will be necessary. Releases of this magnitude are associated with the failure of plant systems needed for the protection of the public and likely involve fuel damage.</p> <p>While these failures are addressed by other ICs, this IC provides appropriate diversity and addresses events which may not be able to be classified on the basis of plant status alone. It is important to note that for the more severe accidents the release may be unmonitored or there may be large uncertainties associated with the source term and/or meteorology.</p> <p>The EPA PAGs are expressed in terms of the sum of the effective dose equivalent (EDE) and the committed effective dose equivalent (CEDE), or as the thyroid committed dose equivalent (CDE). For the purpose of these IC/EALs, the dose quantity total effective dose equivalent (TEDE), as defined in 10 CFR 20, is used in lieu of "sum of EDE and CEDE".</p> <p>The TEDE dose is set at the EPA PAG, while the 5000 mrem thyroid CDE was established in consideration of the 1:5 ratio of the EPA PAG for TEDE and thyroid CDE.</p> <p>The monitor list in EAL #1 includes monitors on all potential release pathways.</p> <p>Since dose assessment is based on actual meteorology, whereas the monitor reading EAL is not, the results from these assessments may indicate that the classification is not warranted, or may indicate that a higher classification is warranted. For this reason, emergency implementing procedures should call for the timely performance of dose assessments using actual meteorology and release information. If the results of these dose assessments are available when the classification is made (e.g., initiated at a lower classification level), the dose assessment results override the monitor reading EAL.</p>	<p>RS1 - Basis:</p> <p>This IC addresses radioactivity releases that result in doses at or beyond the site boundary that exceed 10% of the Environmental Protection Agency Protective Action Guides (PAGs). Releases of this magnitude are associated with the failure of plant systems needed for the protection of the public.</p> <p>While these failures are addressed by other ICs, this IC provides appropriate diversity and addresses events which may not be able to be classified on the basis of plant status alone. It is important to note that for the more severe accidents the release may be unmonitored or there may be large uncertainties associated with the source term and/or meteorology.</p> <p>The EPA PAGs are expressed in terms of the sum of the effective dose equivalent (EDE) and the committed effective dose equivalent (CEDE), or as the thyroid committed dose equivalent (CDE). For the purpose of these IC/EALs, the dose quantity total effective dose equivalent (TEDE), as defined in 10 CFR 20, is used in lieu of "sum of EDE and CEDE".</p> <p>The TEDE dose is set at 10% of the EPA PAG, while the 500 mrem thyroid CDE was established in consideration of the 1:5 ratio of the EPA PAG for TEDE and thyroid CDE.</p> <p>The monitor list in EAL #1 includes monitors on all potential release pathways.</p> <p>Since dose assessment is based on actual meteorology, whereas the monitor reading EAL is not, the results from these assessments may indicate that the classification is not warranted, or may indicate that a higher classification is warranted. For this reason, emergency implementing procedures call for the timely performance of dose assessments using actual meteorology and release information. If the results of these dose assessments are available when the classification is made (e.g., initiated at a lower classification level), the dose assessment results override the monitor reading EAL.</p>	<p>RA1 - Basis:</p> <p>The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p> <p>The fundamental basis of this IC is NOT a dose or dose rate, but rather the degradation in the level of safety of the plant implied by the uncontrolled release. This IC addresses an actual or substantial potential degradation in the level of safety of the plant as indicated by a radiological release that exceeds regulatory commitments for an extended period of time.</p> <p>Nuclear power plants incorporate features intended to control the release of radioactive effluents to the environment. Further, there are administrative controls. These controls are located in the Off-site Dose Calculation Manual (ODCM). The occurrence of extended, uncontrolled radioactive releases to the environment is indicative of a degradation in the features and/or controls.</p> <p>The ODCM multiples are specified in RU1 and RA1 only to distinguish between non-emergency conditions, and from each other. While these multiples obviously correspond to an off-site dose or dose rate, the emphasis in classifying these events is the degradation in the level of safety of the plant, not the magnitude of the associated dose or dose rate.</p> <p>Releases should not be prorated or averaged. For example, a release exceeding 600x ODCM for 5 minutes does not meet the threshold.</p> <p>This EAL includes any release for which a radioactivity discharge permit was not prepared, or a release that exceeds the conditions (e.g., minimum dilution flow, maximum discharge flow, alarm setpoints, etc.) on the applicable permit.</p> <p>EAL #1 is intended for sites that have established effluent monitoring on non-routine release pathways for which a discharge permit would not normally be prepared. The threshold values for this EAL are to be 200 times the ODCM limit or 100 times the threshold values used in RU1. This is true except for the thresholds for the Steam Generator Blowdown Monitors. On both Unit 1 and Unit 2, the calculated values exceeded the range of the monitors. Therefore, the values used for the Steam Generator Blowdown Monitors are 95% of full scale. This lesser value is still indicative of a loss of control of radioactive material well in excess of that constituting an Unusual Event.</p> <p>EAL #2 addresses radioactivity releases, that for whatever reason, cause effluent radiation monitor readings to exceed the threshold identified in the IC established by the radioactivity discharge permit. This value may be associated with a planned batch release, or a continuous release path.</p> <p>EAL #3 addresses uncontrolled releases that are detected by sample analyses, particularly on unmonitored pathways, e.g., spills of radioactive liquids into storm drains, heat exchanger leakage in river water systems, etc.</p>	<p>RU1 - Basis:</p> <p>The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p> <p>The fundamental basis of this IC is NOT a dose or dose rate, but rather the degradation in the level of safety of the plant implied by the uncontrolled release. This IC addresses a potential decrease in the level of safety of the plant as indicated by a radiological release that exceeds regulatory commitments for an extended period of time.</p> <p>Nuclear power plants incorporate features intended to control the release of radioactive effluents to the environment. Further, there are administrative controls established to prevent unintentional releases, or control and monitor intentional releases. These controls are located in the Off-site Dose Calculation Manual (ODCM). The occurrence of extended, uncontrolled radioactive releases to the environment is indicative of a degradation of these features and/or controls.</p> <p>The ODCM multiples are specified in RU1 and RA1 only to distinguish between non-emergency conditions, and from each other. While these multiples obviously correspond to an off-site dose or dose rate, the emphasis in classifying these events is the degradation in the level of safety of the plant, not the magnitude of the associated dose or dose rate.</p> <p>Releases should not be prorated or averaged. For example, a release exceeding 4x ODCM for 30 minutes does not meet the threshold.</p> <p>This EAL includes any release for which a radioactivity discharge permit was not prepared, or a release that exceeds the conditions (e.g., minimum dilution flow, maximum discharge flow, alarm setpoints, etc.) on the applicable permit.</p> <p>EAL #1 addresses radioactivity releases, that for whatever reason, cause effluent radiation monitor readings to exceed the threshold identified in the IC. This EAL is intended for sites that have established effluent monitoring on non-routine release pathways for which a discharge permit would not normally be prepared.</p> <p>EAL #2 addresses radioactive releases that, for whatever reason, cause effluent radiation monitor readings to exceed the threshold identified in the IC, established by the radioactivity discharge permit. This value may be associated with a planned batch release, or a continuous release path.</p> <p>EAL #3 addresses uncontrolled releases that are detected by sample analysis, particularly on unmonitored pathways, e.g., spills of radioactive liquids into storm drains, heat exchanger leakage in river water systems, etc.</p>

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

General Emergency		Site Area Emergency		Alert		Unusual Event		Recognition Category																																																																																																																																																																																				
<p>RG1 Off-site Dose Resulting from an Actual or IMMINENT Release of Gaseous Radioactivity Greater Than 1000 mrem TEDE or 5000 mrem Thyroid CDE for the Actual or Projected Duration of the Release Using Actual Meteorology.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>Note The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the release duration has exceeded, or will likely exceed, the applicable time. If dose assessment results are available at the time of declaration, the classification should be based on dose assessment instead of monitor values. Do not delay declaration awaiting dose assessment results.</p> <p>1. 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Dose assessment using actual meteorology indicates doses greater than 1000 mrem TEDE OR 5000 mrem thyroid CDE at or beyond the site boundary.</p> <p>OR</p> <p>3. Field survey results indicate closed window dose rates greater than 1000 mR/hr expected to continue for more than one hour; OR analyses of field survey samples indicate thyroid CDE greater than 5000 mrem for one hour of inhalation, at or beyond site boundary.</p> <p>DEFINITION BOX</p> <p>IMMINENT – Mitigation actions have been ineffective, additional actions are not expected to be successful, and trended information indicates that the event or condition will occur. Where IMMINENT timeframes are specified, they shall apply.</p> <p>VALID – An indication, report, or condition, is considered to be VALID when it is verified by (1) an instrument channel check, (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment.</p>		UNIT 1:			Monitor Channel	Pathway	Reading	RSC 26-1H	Plant Vent (PV) Normal Ops	8.2 E+01 uCi/cc	RSC 26-1H	Plant Vent (PV) post-SIAS	9.9 E+02 uCi/cc	UNIT 2:			Monitor Channel	Pathway	Reading	RS 26-90, RMCS 622	Plant Vent (PV) Normal Ops	9.0 E+01 uCi/cc	RS 26-90, RMCS 622	Plant Vent (PV) post-SIAS	9.9 E+02 uCi/cc	RS 26-90, RMCS 622	w/ FHB Diverted to Plant Vent via Shield Building Ventilation	8.2 E+01 uCi/cc	<p>RS1 Off-site Dose Resulting from an Actual or IMMINENT Release of Gaseous Radioactivity Greater Than 100 mrem TEDE or 500 mrem Thyroid CDE for the Actual or Projected Duration of the Release.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>Note The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the release duration has exceeded, or will likely exceed, the applicable time. 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Field survey results indicate closed window dose rates greater than 100 mR/hr expected to continue for more than one hour; OR analyses of field survey samples indicate thyroid CDE greater than 500 mrem for one hour of inhalation, at or beyond the site boundary.</p> <p>GUIDANCE FOR RG1, RS1, RA1, RU1</p> <ol style="list-style-type: none">Where two channels are listed, the channel ranges overlap, the monitor reading is valid on either channel.For Unit 1 Eberline channels – to obtain current data: ENTER the command [DATA] channel ID [ENTER]Use Normal OPS threshold unless Plant Vent flow has been:<ul style="list-style-type: none">Lowered due to successful SIAS ORUnit 2 only – Raised due to successful diversion on FHB ventilation to the Plant Vent		UNIT 1:			Monitor Channel	Pathway	Reading	RSC 26-1H	Plant Vent (PV) Normal Ops	8.2 E+00 uCi/cc	RSC 26-1H	Plant Vent (PV) post-SIAS	9.9 E+01 uCi/cc	RE 26-62, Eberline 05-01	"A" Main Steam Line Monitor	1.8 E+03 mR/hr	RE 26-63, Eberline 05-02	"B" Main Steam Line Monitor	1.8 E+03 mR/hr	UNIT 2:			Monitor Channel	Pathway	Reading	RS 26-90, RMCS 622	Plant Vent (PV) Normal Ops	9.0 E+00 uCi/cc	RS 26-90, RMCS 622	Plant Vent (PV) post-SIAS	9.9 E+01 uCi/cc	RS 26-90, RMCS 622	w/ FHB Diverted to Plant Vent via Shield Building Ventilation	8.2 E+00 uCi/cc	RIM 26-71, RMCS 631	"A" Main Steam Line Monitor	1.8 E+03 mR/hr	RIM 26-72, RMCS 632	"B" Main Steam Line Monitor	1.8 E+03 mR/hr	<p>RA1 Any Release of Gaseous or Liquid Radioactivity to the Environment Greater Than 200 times the ODCM for 15 Minutes or Longer.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>Note The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the release duration has exceeded, or will likely exceed, the applicable time. 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RS-26-6, RMCS 122	"B" S/G Blowdown	2.5 E-04 uCi/ml																																																																																																																																																																																										

APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
R - ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT			<p>RA2 - Basis:</p> <p>This IC addresses rises in radiation dose rates within plant buildings and may be a precursor to a radioactivity release to the environment. These events represent a loss of control over radioactive material and represent an actual or substantial potential degradation in the level of safety of the plant.</p> <p>These events escalate from RU2 in that fuel activity has been released, or is anticipated due to fuel heatup. This IC applies to spent fuel requiring water coverage and is not intended to address spent fuel which is licensed for dry storage.</p> <p>EAL #1 indications include water level indication and personnel reports.</p> <p>EAL #2 addresses radiation monitor indications of fuel uncover and/or fuel damage. Application of this EAL requires understanding of the actual radiological conditions present in the vicinity of the monitor.</p> <p>Raised ventilation monitor readings may be indication of a radioactivity release from the fuel, confirming that damage has occurred. Increased background at the ventilation monitor due to water level decrease may mask increased ventilation exhaust airborne activity and needs to be considered.</p> <p>While a radiation monitor could detect an increase in dose rate due to a drop in the water level, it might not be a reliable indication of whether or not the fuel is covered.</p> <p>For example, an Area Radiation Monitor (ARM) reading may increase due to planned evolutions such as head lift, or even a fuel assembly being raised in the manipulator mast. Also, a monitor could in fact be properly responding to a known event involving transfer or relocation of a source, stored in or near the fuel pool or responding to a planned evolution such as removal of the reactor head. Generally, increased radiation monitor indications will need to be combined with another indicator (or personnel report) of water loss.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on IC RS1 or RG1.</p> <p>RA3 - Basis:</p> <p>This IC addresses raised radiation levels that impact continued operation in areas requiring continuous occupancy in order to maintain safe operation or to perform a safe shutdown. It is this impaired ability to operate the plant that results in the actual or potential substantial degradation of the level of safety of the plant. The cause and/or magnitude of the rise in radiation levels is not a concern of this IC. The Emergency Coordinator must consider the source or cause of the raised radiation levels and determine if any other IC may be involved.</p> <p>Areas requiring continuous occupancy include the Control Room and Central Alarm Station (CAS).</p>	<p>RU2 - Basis:</p> <p>This IC addresses elevated radiation levels as a result of water level lowering but above the Reactor Pressure Vessel flange or events that have resulted, or may result, in UNPLANNED rise in radiation dose rates within plant buildings. These radiation levels represent a loss of control over radioactive material and may represent a potential degradation in the level of safety of the plant.</p> <p>The refueling pathway is a combination of cavities, tubes, canals and pools. While a radiation monitor could detect an increase a rise in dose rate due to a drop in the water level, it might not be a reliable indication of whether or not the fuel is covered. For refueling events where the water level drops below the Reactor Pressure Vessel flange classification would be via CU2. This event escalates to an Alert per IC RA2 if irradiated fuel outside the reactor vessel is uncovered. For events involving irradiated fuel in the reactor vessel, escalation would be via the Fission Product Barrier Table for events in operating Modes 1-4.</p> <p>Application of this EAL requires understanding of the actual radiological conditions present in the vicinity of the monitor.</p> <p>EAL #2 addresses elevated in-plant radiation levels that represent a loss of control of radioactive material resulting in a potential degradation in the level of safety of the plant. This EAL excludes radiation level increases that result from planned activities such as use of radiographic sources and movement of radioactive waste materials. A specific list of Area Radiation Monitors (ARMs) is not required as it would restrict the applicability of the Threshold. The intent is to identify loss of control of radioactive material in any monitored area.</p> <p>For example, a refueling bridge ARM reading may increase due to planned evolutions such as head lift, or even a fuel assembly being raised in the manipulator mast. Also, a monitor could in fact be properly responding to a known event involving transfer or relocation of a source, stored in or near the fuel pool or responding to a planned evolution such as removal of the reactor head. Generally, increased radiation monitor indications will need to be combined with another indicator (or personnel report) of water loss.</p>

APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category																																																																																																																																															
<div>DEFINITION BOX</div> <p>UNPLANNED – A parameter change or an event that is not the result of an intended evolution and requires corrective or mitigative actions.</p> <p>VALID – An indication, report, or condition, is considered to be VALID when it is verified by (1) an instrument channel check, (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment.</p>	<div>GUIDANCE FOR RA2</div> <div>1. For Unit 1 Eberline channels – to obtain current data: ENTER the command [DATA] channel ID [ENTER]</div>	<p>RA2 Damage to Irradiated Fuel or Loss of Water Level that Has Resulted or Will Result in the Uncovering of Irradiated Fuel Outside the Reactor Vessel.</p> <p>(00)</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <div>1. A water level drop in the reactor refueling cavity, spent fuel pool OR fuel transfer canal that will result in irradiated fuel becoming uncovered.</div> <div>OR</div> <div>2. A VALID alarm on ANY of the following due to damage to irradiated fuel OR loss of water level:</div> <div>UNIT 1 ARM Channels</div> <table><tr><th>Detector Tag No.</th><th>Channel No.</th><th>Description</th><th>Alarm</th></tr><tr><td>RE26-3-1</td><td>#3</td><td>Containment CIS Monitor</td><td>ANY</td></tr><tr><td>RE26-4-1</td><td>#4</td><td>Containment CIS Monitor</td><td>ANY</td></tr><tr><td>RE26-5-1</td><td>#5</td><td>Containment CIS Monitor</td><td>ANY</td></tr><tr><td>RE26-6-1</td><td>#6</td><td>Containment CIS Monitor</td><td>ANY</td></tr><tr><td>RE26-7-1</td><td>#7</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RE26-8-1</td><td>#8</td><td>Refueling Canal</td><td>ANY</td></tr><tr><td>RE26-36-1</td><td>#36</td><td>Operating Deck</td><td>ANY</td></tr></table> <div>UNIT 1 PRM Channel</div> <table><tr><td>RSC 26-4</td><td>Eberline 04-05</td><td>Fuel Handling Building Exhaust Vent</td><td>HIGH</td></tr></table> <div>UNIT 2 ARM Channels</div> <table><tr><th>Detector Tag No.</th><th>RMCS Channel</th><th>Description</th><th>Alarm</th></tr><tr><td>RIM-26-2</td><td>GAG-002</td><td>Operating Deck</td><td>ANY</td></tr><tr><td>RIM-26-3</td><td>GAG-003</td><td>Containment CIS Monitor A</td><td>ANY</td></tr><tr><td>RIM-26-4</td><td>GAG-004</td><td>Containment CIS Monitor B</td><td>ANY</td></tr><tr><td>RIM-26-5</td><td>GAG-005</td><td>Containment CIS Monitor C</td><td>ANY</td></tr><tr><td>RIM-26-6</td><td>GAG-006</td><td>Containment CIS Monitor D</td><td>ANY</td></tr><tr><td>RIM-26-7</td><td>GAG-007</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-8</td><td>GAG-008</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-9</td><td>GAG-009</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-10</td><td>GAG-010</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-11</td><td>GAG-011</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-12</td><td>GAG-012</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-33</td><td>GAG-033</td><td>Refueling Canal</td><td>ANY</td></tr></table> <div>UNIT 2 PRM Channel</div> <table><tr><td>RS-26-12</td><td>EAG-413</td><td>Fuel Handling Building Exhaust Vent</td><td>HIGH</td></tr></table>	Detector Tag No.	Channel No.	Description	Alarm	RE26-3-1	#3	Containment CIS Monitor	ANY	RE26-4-1	#4	Containment CIS Monitor	ANY	RE26-5-1	#5	Containment CIS Monitor	ANY	RE26-6-1	#6	Containment CIS Monitor	ANY	RE26-7-1	#7	Spent Fuel Pool	ANY	RE26-8-1	#8	Refueling Canal	ANY	RE26-36-1	#36	Operating Deck	ANY	RSC 26-4	Eberline 04-05	Fuel Handling Building Exhaust Vent	HIGH	Detector Tag No.	RMCS Channel	Description	Alarm	RIM-26-2	GAG-002	Operating Deck	ANY	RIM-26-3	GAG-003	Containment CIS Monitor A	ANY	RIM-26-4	GAG-004	Containment CIS Monitor B	ANY	RIM-26-5	GAG-005	Containment CIS Monitor C	ANY	RIM-26-6	GAG-006	Containment CIS Monitor D	ANY	RIM-26-7	GAG-007	Spent Fuel Pool	ANY	RIM-26-8	GAG-008	Spent Fuel Pool	ANY	RIM-26-9	GAG-009	Spent Fuel Pool	ANY	RIM-26-10	GAG-010	Spent Fuel Pool	ANY	RIM-26-11	GAG-011	Spent Fuel Pool	ANY	RIM-26-12	GAG-012	Spent Fuel Pool	ANY	RIM-26-33	GAG-033	Refueling Canal	ANY	RS-26-12	EAG-413	Fuel Handling Building Exhaust Vent	HIGH	<p>RU2 UNPLANNED Rise in Plant Radiation Levels.</p> <p>(08)</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <div>1. a. UNPLANNED water level drop in the Refueling Cavity (during refueling operations) OR Spent Fuel Pool (cannot be maintained greater than 58 feet).</div> <div>AND</div> <div>b. VALID rise in area radiation reading on ANY of the following:</div> <div>UNIT 1 ARM Channels</div> <table><tr><th>Detector Tag No.</th><th>Channel No.</th><th>Description</th></tr><tr><td>RE26-4-1</td><td>#4</td><td>Containment CIS Monitor</td></tr><tr><td>RE26-6-1</td><td>#6</td><td>Containment CIS Monitor</td></tr><tr><td>RE26-7-1</td><td>#7</td><td>Spent Fuel Pool</td></tr><tr><td>RE26-8-1</td><td>#8</td><td>Refueling Canal</td></tr><tr><td>RE26-36-1</td><td>#36</td><td>Operating Deck</td></tr></table> <div>UNIT 2 ARM Channels</div> <table><tr><th>Detector Tag No.</th><th>RMCS Channel</th><th>Description</th></tr><tr><td>RIM-26-2</td><td>GAG-002</td><td>Operating Deck</td></tr><tr><td>RIM-26-4</td><td>GAG-004</td><td>Containment CIS Monitor B</td></tr><tr><td>RIM-26-6</td><td>GAG-006</td><td>Containment CIS Monitor D</td></tr><tr><td>RIM-26-7</td><td>GAG-007</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-8</td><td>GAG-008</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-9</td><td>GAG-009</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-10</td><td>GAG-010</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-11</td><td>GAG-011</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-12</td><td>GAG-012</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-33</td><td>GAG-033</td><td>Refueling Canal</td></tr></table> <div>OR</div> <div>2. UNPLANNED VALID Area Radiation Monitor readings OR survey results indicate a rise by a factor of 1000 over normal* levels.</div>	Detector Tag No.	Channel No.	Description	RE26-4-1	#4	Containment CIS Monitor	RE26-6-1	#6	Containment CIS Monitor	RE26-7-1	#7	Spent Fuel Pool	RE26-8-1	#8	Refueling Canal	RE26-36-1	#36	Operating Deck	Detector Tag No.	RMCS Channel	Description	RIM-26-2	GAG-002	Operating Deck	RIM-26-4	GAG-004	Containment CIS Monitor B	RIM-26-6	GAG-006	Containment CIS Monitor D	RIM-26-7	GAG-007	Spent Fuel Pool	RIM-26-8	GAG-008	Spent Fuel Pool	RIM-26-9	GAG-009	Spent Fuel Pool	RIM-26-10	GAG-010	Spent Fuel Pool	RIM-26-11	GAG-011	Spent Fuel Pool	RIM-26-12	GAG-012	Spent Fuel Pool	RIM-26-33	GAG-033	Refueling Canal	<div>ABNORMAL RAD LEVELS</div> <div>R – ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT</div>
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<div>GUIDANCE FOR RU2</div> <p>*Normal levels can be considered as the highest reading in the past twenty-four hours excluding the current peak value.</p>																																																																																																																																																			

APPENDIX A
EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

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APPENDIX A
EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

RECOGNITION CATEGORY F
FISSION PRODUCT BARRIER DEGRADATION

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

Rec. Cal.	FISSION PRODUCT BARRIER DEGRADATION TABLE (APPLICABILITY: Modes 1, 2, 3, & 4 ONLY)		
F - FISSION PRODUCT BARRIER DEGRADATION	FUEL CLAD BARRIER - Basis The Fuel Clad Barrier is the zircalloy or stainless steel tubes that contain the fuel pellets.	REACTOR COOLANT SYSTEM BARRIER - Basis The RCS Barrier includes the RCS primary side and its connections up to and including the pressurizer safety and relief valves, and other connections up to and including the primary isolation valves.	PRIMARY CONTAINMENT BARRIER - Basis The Containment Barrier includes the containment building and connections up to and including the outermost containment isolation valves. This barrier also includes the main steam, feedwater, and blowdown line extensions outside the containment building up to and including the outermost secondary side isolation valve.
	1. Safety Function Status Loss threshold - Core Heat Removal Safety Function not met indicates significant superheating and core uncover and is considered to indicate loss of the Fuel Clad Barrier. Potential Loss threshold - RCS Heat Removal Safety Function not met indicates the ultimate heat sink function is under extreme challenge.	1. Safety Function Status There is no Loss threshold associated with this item. Potential Loss threshold 1 - RCS Pressure and Control Safety Function not met indicates an extreme challenge to the safety function derived from appropriate instrument readings. Potential Loss threshold 2 - Heat Removal Safety Function not met indicates the ultimate heat sink function is under extreme challenge.	1. Safety Function Status There is no Loss threshold associated with this item. Containment Temperature and Pressure Safety function not met indicates an extreme challenge to the safety function derived from appropriate instrument readings and/or sampling results and thus represents a potential loss of containment. Conditions leading to a potential loss of containment barrier result from RCS barrier and/or fuel cladding barrier loss. Thus, this threshold is primarily a discriminator between Site Area Emergency and General Emergency representing a potential loss of the third barrier.
	2. Primary Coolant Activity Level The value is 300 μ Ci/gm 1131 equivalent. Assessment by the EAL Task Force indicates that this amount of coolant activity is well above that expected for iodine spikes and corresponds to less than 5% fuel clad damage. This amount of radioactivity indicates significant clad damage and thus the Fuel Clad Barrier is considered lost. There is no Potential Loss threshold associated with this item.	2. RCS Leak Rate The Loss threshold addresses conditions where leakage from the RCS is greater than available inventory control capacity such that a loss of subcooling has occurred. The loss of subcooling is the fundamental indication that the inventory control systems are inadequate in maintaining RCS pressure and inventory against the mass loss through the leak. The Potential Loss threshold is based on the inability to maintain normal liquid inventory within the Reactor Coolant System (RCS) by normal operation of the Charging System which is considered to be the flow rate equivalent to one charging pump discharging to the charging header. Isolating letdown is a standard abnormal operating procedure action and may prevent unnecessary classifications when a non-RCS leakage path such as a Charging/Letdown leak exists. The intent of this condition is met if attempts to isolate Letdown are NOT successful. Additional charging pumps being required is indicative of a substantial RCS leak.	2. Containment Pressure Loss thresholds 1 and 2 - Rapid unexplained loss of pressure (i.e., not attributable to containment spray or condensation effects) following an initial pressure increase from a primary or secondary high energy line break indicates a loss of containment integrity. Containment pressure and sump levels should increase as a result of the mass and energy release into containment from a LOCA. Thus, sump level or pressure not increasing indicates containment bypass and a loss of containment integrity. This indicator relies on operator recognition of an unexpected response for the condition and therefore does not have a specific value associated with it. The unexpected response is important because it is the indicator of a containment bypass condition. Existence of an explosive mixture means a hydrogen and oxygen concentration of at least the lower deflagration limit curve exists. The third Potential Loss threshold represents a potential loss of containment in that the containment heat removal/depressurization system are either lost or performing in a degraded manner, as indicated by containment pressure greater than the setpoint at which the equipment was supposed to have actuated.
	3. Core Exit Thermocouple Readings The Loss threshold corresponds to significant superheating of the coolant. The Potential Loss threshold corresponds to loss of subcooling.	3. Not Applicable Not Applicable (Added to keep barrier numbering consistent)	3. Core Exit Thermocouple Reading There is no Loss threshold associated with this item. The conditions in these thresholds represent an IMMINENT core melt sequence which, if not corrected, could lead to vessel failure and an increased potential for containment failure. In conjunction with the Core Cooling and RCS Leakage criteria in the Fuel and RCS barrier columns, this threshold would result in the declaration of a General Emergency - loss of two barriers and the potential loss of a third. If the function restoration procedures are ineffective, there is no "success" path. The function restoration procedures are those emergency operating procedures that address the recovery of the core cooling critical safety functions. The procedure is considered effective if the temperature is lowering or if the vessel water level is rising. Whether or not the procedures will be effective should be apparent within 15 minutes. The Emergency Coordinator should make the declaration as soon as it is determined that the procedures have been, or will be ineffective.
	DEFINITION BOX IMMINENT - Mitigation actions have been ineffective, additional actions are not expected to be successful, and trended information indicates that the event or condition will occur. Where IMMINENT timeframes are specified, they shall apply. FAULTED - In a steam generator, the existence of secondary side leakage that results in an uncontrolled drop in steam generator pressure or the steam generator being completely depressurized. FULL TRAIN OF DEPRESSURIZATION EQUIPMENT [1/2-EOP-03] - <ul style="list-style-type: none"> Two Containment Spray Headers - Flow in each header is at least 2550 [2700] gpm OR Four Containment Coolers - Running OR Two Containment Coolers - Running AND One Containment Spray Header - Flow in the header is at least 2550 [2700] gpm 	DEFINITION BOX (CONTINUED) RCS LEAK RATE - Comprised of IDENTIFIED and UNIDENTIFIED LEAKAGE as defined by Technical Specifications. UNIDENTIFIED LEAKAGE - Leakage which is not IDENTIFIED LEAKAGE or CONTROLLED LEAKAGE. CONTROLLED LEAKAGE - Seal water flow supplied from the reactor coolant pump seals. IDENTIFIED LEAKAGE: a. Leakage (except CONTROLLED LEAKAGE) into closed systems, such as pump seal or valve packing leaks that are captured, and conducted to a sump or collecting tank, or b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or c. Reactor Coolant System leakage through a steam generator to the secondary system (Primary-to-secondary leakage).	

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

FISSION PRODUCT BARRIER DEGRADATION TABLE (APPLICABILITY: Modes 1, 2, 3, & 4 ONLY)						Rec. Cat.
FUEL CLAD BARRIER		REACTOR COOLANT SYSTEM BARRIER		PRIMARY CONTAINMENT BARRIER		
LOSS	POTENTIAL LOSS	LOSS	POTENTIAL LOSS	LOSS	POTENTIAL LOSS	
1. Safety Function Status		1. Safety Function Status		1. Safety Function Status		
1. Core Heat Removal Safety function NOT met AND entry into procedure 1/2 EOP-15	1. RCS Heat Removal Safety function NOT met AND entry into procedure 1/2 EOP-15	Not Applicable	1. RCS Pressure Control Safety function NOT met AND entry into procedure 1/2 EOP-15 OR 2. RCS Heat Removal Safety function NOT met AND entry into procedure 1/2 EOP-15	Not Applicable	1. Containment Temperature and Pressure Safety function NOT met AND entry into procedure 1/2 EOP-15	
		GUIDANCE BOX FOR SAFETY FUNCTION STATUS IN ALL THREE BARRIERS If directed to perform any step in 1/2 EOP-15, Then entry into 1/2 EOP-15 has been met.		GUIDANCE BOX FOR SAFETY FUNCTION STATUS IN ALL THREE BARRIERS If safety function cannot be restored within 15 minutes, then that safety function is NOT met for purposes of classification.		
OR		OR		OR		
2. Primary Coolant Activity Level		2. RCS Leak Rate		2. Containment Pressure		
1. Coolant Activity greater than 300 uCi/gm Dose Equivalent I-131 (as determined by procedure CY-SL-108-0004, Guidelines for Collecting Post Accident Samples)	Not Applicable	1. RCS leak rate greater than available makeup capacity as indicated by a loss of RCS minimum subcooling	1. RCS leak rate indicated greater than 50 gpm with Letdown isolated	1. A containment pressure rise followed by a rapid unexplained drop in containment pressure. OR 2. Containment pressure OR sump level response NOT consistent with LOCA conditions	1. Containment pressure greater than 44-PSIG and rising OR 2. Containment Hydrogen greater than 4% OR 3. Pressure greater than 10 [5.4] psig AND a. Less than one FULL TRAIN OF DEPRESSURIZATION EQUIPMENT operating	
GUIDANCE BOX See also SU4, Fuel Clad Degradation.		GUIDANCE BOX • MINIMUM SUBCOOLING – Determination is made using Figure 1A / 1B in 1/2-EOP-99. • See also SU5, RCS Leakage.				
OR		OR		OR		
3. Core Exit Thermocouple Readings		3. Not Applicable		3. Core Exit Thermocouple Reading		
1. Core Exit Thermocouples reading greater than 1200°F	1. Core Exit Thermocouples reading greater than 700° F			1. Core Exit Thermocouples reading greater than 1200°F	1. Core Exit Thermocouples reading greater than 700° F	
GUIDANCE BOX At least two (2) Core Exit Thermocouples must exceed the threshold.	GUIDANCE BOX At least two (2) Core Exit Thermocouples must exceed the threshold.			GUIDANCE BOX • At least two (2) Core Exit Thermocouples must exceed the threshold. • Sensors 4 through 8 NOT covered means sensors 4 through 8 inclusive (all). Not applicable	AND a. Functional Recovery (1/2 EOP-15) for RCS and Core Heat Removal NOT effective within 15 minutes OR 2. Core Exit Thermocouples reading greater than 700° F AND BOTH of the following apply: • RVLMS indicates Sensors 4 through 8 NOT covered OR T _{REP} AND REP CET difference greater than 20° F (LOCA NOT in progress) OR Greater than 22° F superheated on REP CET (LOCA in progress) AND • Functional Recovery (1/2 EOP-15) for RCS and Core Heat Removal NOT effective within 15 minutes	
OR (Continued on next page)		OR (Continued on next page)		OR (Continued on next page)		

F – FISSION PRODUCT BARRIER DEGRADATION

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

Rec. Cat.	FISSION PRODUCT BARRIER DEGRADATION TABLE (APPLICABILITY: Modes 1, 2, 3, & 4 ONLY) – Continued		
	FUEL CLAD BARRIER – Basis (continued)	REACTOR COOLANT SYSTEM BARRIER – Basis (continued)	PRIMARY CONTAINMENT BARRIER – Basis (continued)
F – FISSION PRODUCT BARRIER DEGRADATION	<p>4. Reactor Vessel Water Level</p> <p>There is no Loss threshold associated with this item.</p> <p>The indication for the Potential Loss threshold represents a level near the top of the active fuel – Reactor Vessel level sensors not covered or THOT and REP CET difference greater than 20 °F (LOCA NOT in progress) or greater than 22°F superheated on REP CET (LOCA in progress) indicates subcooling has been lost and that some clad damage may occur.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p align="center">DEFINITION BOX</p> <p>FAULTED – In a steam generator, the existence of secondary side leakage that results in an uncontrolled drop in steam generator pressure or the steam generator being completely depressurized.</p> <p>PROMPTLY ISOLATED – A steam release to the environment, from a leaking or ruptured S/G, that is stopped at the completion of the S/G isolation procedure Control Room steps, has been PROMPTLY ISOLATED.</p> <p>RUPTURED – In a steam generator, existence of primary-to-secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.</p> <p>UNISOLABLE – A breach or leak that cannot be PROMPTLY ISOLATED.</p> </div>	<p>4. SG Tube Rupture</p> <p>This threshold addresses the full spectrum of Steam Generator (SG) tube rupture events in conjunction with Containment Barrier Loss thresholds. It addresses RUPTURED SG(s) for which the leakage is large enough to cause actuation of ECCS (SI), (U1-1000 psia and U2 1730 psia). This is consistent to the RCS leak rate barrier Potential Loss threshold 2. By itself, this threshold will result in the declaration of an Alert. However, if the SG is also FAULTED (i.e., two barriers failed), the declaration escalates to a Site Area Emergency per Containment barrier Loss thresholds.</p> <p>There is no Potential Loss threshold associated with this item.</p>	<p>4. SG Secondary Side Release with P-to-S Leakage</p> <p>This Loss threshold recognizes that SG tube leakage can represent a bypass of the containment barrier as well as a loss of the RCS barrier.</p> <p>The two Loss thresholds described could be considered redundant. The inclusion of a threshold that uses Emergency Procedure commonly used terms like "RUPTURED" and "FAULTED" adds to the ease of the classification process and has been included based on this human factor concern.</p> <p>This threshold results in a NOUE for smaller breaks that; (1) do not exceed the normal charging capacity threshold in RCS leak rate barrier Potential Loss threshold, or (2) do not result in ECCS actuation in RCS SG tube rupture barrier Loss threshold. For larger breaks, RCS barrier threshold criteria would result in an Alert. For SG tube ruptures which may involve multiple steam generators or UNISOLABLE secondary line breaks, this threshold would exist in conjunction with RCS barrier thresholds and would result in a Site Area Emergency. Escalation to General Emergency would be based on "Potential Loss" of the Fuel Clad Barrier.</p> <p>The first Loss threshold addresses the condition in which a RUPTURED steam generator is also FAULTED. This condition represents a bypass of the RCS and containment barriers and is a subset of the second threshold. In conjunction with RCS barrier loss threshold, this would always result in the declaration of a Site Area Emergency.</p> <p>The second Loss threshold addresses SG tube leaks that exceed 10 gpm in conjunction with an UNISOLABLE release path to the environment from the affected steam generator. The threshold for establishing the UNISOLABLE secondary side release is intended to be a prolonged release of radioactivity from the RUPTURED steam generator directly to the environment (i.e., SG tube rupture with concurrent loss of off-site power and the RUPTURED steam generator is required for plant cooldown or a stuck open relief valve). This could be expected to occur when the main condenser is unavailable to accept the contaminated steam. If the main condenser is available, there may be releases via air ejectors, gland seal exhausters, and other similar controlled, and often monitored, pathways.</p> <p>These pathways do not meet the intent of an UNISOLABLE release path to the environment. These minor releases are assessed using Abnormal Rad Levels / Radiological Effluent ICs.</p>
	<p>5. Not Applicable</p> <p>Not Applicable [Added to keep barrier numbering consistent]</p>	<p>5. Not Applicable</p> <p>Not Applicable [Added to keep barrier numbering consistent]</p>	<p>5. CNTMT Isolation Failure or Bypass</p> <p>This Threshold addresses incomplete containment isolation that allows direct release to the environment. It represents a loss of the containment barrier.</p> <p>The use of the modifier "direct" in defining the release path discriminates against release paths through interfacing liquid systems. The existence of an in-line charcoal filter does not make a release path indirect since the filter is not effective at removing fission product noble gases. Typical filters have an efficiency of 95-99% removal of iodine. Given the magnitude of the core inventory of iodine, significant releases could still occur. In addition, since the fission product release would be driven by boiling in the reactor vessel, the high humidity in the release stream can be expected to render the filters ineffective in a short period.</p> <p>There is no Potential Loss threshold associated with this item.</p>
	<p>6. Containment Radiation Monitoring</p> <p>The reading is a value which indicates the release of reactor coolant, with elevated activity indicative of fuel damage, into the containment calculated assuming the instantaneous release and dispersal of the reactor coolant noble gas and iodine inventory associated with a 5% clad failure into the containment atmosphere.</p> <p>Reactor coolant concentrations of this magnitude are several times larger than the maximum concentrations (including iodine spiking) allowed within technical specifications and are therefore indicative of fuel damage.</p> <p>This value is higher than that specified for RCS barrier Loss threshold #6. Thus, this threshold indicates a loss of both the Fuel Clad barrier and a loss of RCS barrier that appropriately escalates the emergency classification level to a Site Area Emergency.</p> <p>There is no Potential Loss threshold associated with this item.</p>	<p>6. Containment Radiation Monitoring</p> <p>The reading is a value which indicates the release of reactor coolant to the containment. This reading will be less than that specified for Fuel Clad Barrier threshold 6. Thus, this threshold would be indicative of a RCS leak only. If the radiation monitor reading increased to that specified by Fuel Clad Barrier threshold, fuel damage would also be indicated.</p> <p>There is no Potential Loss threshold associated with this item.</p>	<p>6. Containment Radiation Monitoring</p> <p>There is no Loss threshold associated with this item.</p> <p>The reading is a value which indicates significant fuel damage well in excess of the thresholds associated with both loss of Fuel Clad and loss of RCS Barriers. A major release of radioactivity requiring off-site protective actions from core damage is not possible unless a major failure of fuel cladding allows radioactive material to be released from the core into the reactor coolant.</p> <p>Regardless of whether containment is challenged, this amount of activity in containment, if released, could have such severe consequences that it is prudent to treat this as a potential loss of containment, such that a General Emergency declaration is warranted.</p>
	<p>7. Emergency Coordinator Judgment</p> <p>This threshold addresses any other factors that are to be used by the Emergency Coordinator in determining whether the Fuel Clad barrier is lost or potentially lost. In addition, the inability to monitor the barrier should also be incorporated in this threshold as a factor in Emergency Coordinator judgment that the barrier may be considered lost or potentially lost.</p>	<p>7. Emergency Coordinator Judgment</p> <p>This threshold addresses any other factors that are to be used by the Emergency Coordinator in determining whether the RCS barrier is lost or potentially lost. In addition, the inability to monitor the barrier should also be incorporated in this threshold as a factor in Emergency Coordinator judgment that the barrier may be considered lost or potentially lost.</p>	<p>7. Emergency Coordinator Judgment</p> <p>This threshold addresses any other factors that are to be used by the Emergency Coordinator in determining whether the Containment barrier is lost or potentially lost. In addition, the inability to monitor the barrier should also be incorporated in this threshold as a factor in Emergency Coordinator judgment that the barrier may be considered lost or potentially lost.</p> <p>The Containment Barrier should not be declared lost or potentially lost based on exceeding Technical Specification action statement criteria, unless there is an event in progress requiring mitigation by the Containment barrier. When no event is in progress (Loss or Potential Loss of either Fuel Clad and/or RCS) the Containment Barrier status is addressed by Technical Specifications.</p>

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

FISSION PRODUCT BARRIER DEGRADATION TABLE (APPLICABILITY: Modes 1, 2, 3, & 4 ONLY) – Continued										Rec. Cat.
FUEL CLAD BARRIER		REACTOR COOLANT SYSTEM BARRIER				PRIMARY CONTAINMENT BARRIER				F – FISSION PRODUCT BARRIER DEGRADATION
LOSS	POTENTIAL LOSS	LOSS	POTENTIAL LOSS	LOSS	POTENTIAL LOSS	LOSS	POTENTIAL LOSS	LOSS	POTENTIAL LOSS	
4. Reactor Vessel Water Level		4. SG Tube Rupture				4. SG Secondary Side Release with P-to-S Leakage				
<div>GUIDANCE BOX</div> <p>Sensors 4 through 8 NOT covered means sensors 4 through 8 inclusive (all).</p> <p>Not Applicable</p>	1. RVLMS indicates Sensors 4 through 8 NOT covered	1. RUPTURED S/G results in a Safety Injection Actuation Signal (SIAS)		Not Applicable		1. RUPTURED S/G is also FAULTED outside of containment		Not applicable		
	— OR —					— OR —				
	2. T _{HOT} AND REP CET difference greater than 20°F (LOCA NOT in progress)					AND				
	— OR —					a. UNISOLABLE steam release from affected S/G to the environment				
OR		OR				OR				
5. Not Applicable		5. Not Applicable				5. CNTMT Isolation Failure or Bypass				
Not Applicable		Not Applicable		Not Applicable		1. Failure of all valves in ANY one line to close		Not Applicable		
						AND				
						a. Direct downstream pathway to the environment exists after CIS/CIAS				
OR		OR				OR				
6. Containment Radiation Monitoring		6. Containment Radiation Monitoring				6. Containment Radiation Monitoring				
1. CHRRM reading greater than 1.4 E+02 R/hr		1. ANY CIS monitor reading greater than 1.5 E+03 mR/hr		Not Applicable		Not Applicable		1. CHRRM reading greater than 2.7 E+03 R/hr		
OR		OR				OR				
7. Emergency Coordinator Judgment		7. Emergency Coordinator Judgment				7. Emergency Coordinator Judgment				
1. ANY condition in the opinion of the Emergency Coordinator that indicates Loss of the Fuel Clad Barrier		1. ANY condition in the opinion of the Emergency Coordinator that indicates Loss of the RCS Barrier		1. ANY condition in the opinion of the Emergency Coordinator that indicates Potential Loss of the RCS Barrier		1. ANY condition in the opinion of the Emergency Coordinator that indicate Loss of the Containment Barrier		1. ANY condition in the opinion of the Emergency Coordinator that indicate Potential Loss of the Containment Barrier		

Guidance – Match conditions to a column to determine Emergency Class																			
FISSION PRODUCT BARRIER STATUS		FG1: General Emergency				FS1: Site Area Emergency								FA1: Alert				FU1: Unusual Event	
		Loss of ANY Two Barriers AND Loss or Potential Loss of the third barrier.				Loss or Potential Loss of ANY two barriers.								ANY Loss or ANY Potential Loss of EITHER Fuel Clad OR RCS.				ANY Loss or ANY Potential Loss of Containment.	
Fuel Clad – LOSS		X	X		X	X	X	X	X					X					
Fuel Clad – POTENTIAL LOSS				X						X	X	X	X		X				
Reactor Coolant System – LOSS		X	X	X		X				X			X	X			X		
Reactor Coolant System – POTENTIAL LOSS					X		X				X		X	X			X		
Primary Containment – LOSS		X		X	X			X				X	X	X				X	
Primary Containment – POTENTIAL LOSS			X					X				X	X	X					X

APPENDIX A
EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

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APPENDIX A
EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

RECOGNITION CATEGORY S
SYSTEM MALFUNCTIONS

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
S – SYSTEM MALFUNCTIONS	<p>SG1 – Basis:</p> <p>Loss of all AC power to emergency busses compromises all plant safety systems requiring electric power including decay heat removal, emergency core cooling, containment heat removal and the Ultimate Heat Sink. Prolonged loss of all AC power to emergency busses will lead to loss of fuel clad, RCS, and containment, thus warranting declaration of a General Emergency.</p> <p>The 4 hour restoration time is based on the Station Blackout Coping Analysis.</p> <p>This IC is specified to assure that in the unlikely event of a prolonged station blackout, timely recognition of the seriousness of the event occurs and that declaration of a General Emergency occurs as early as is appropriate, based on a reasonable assessment of the event trajectory.</p> <p>The likelihood of restoring at least one emergency bus should be based on a realistic appraisal of the situation since a delay in an upgrade decision based on only a chance of mitigating the event could result in a loss of valuable time in preparing and implementing public protective actions.</p> <p>In addition, under these conditions, fission product barrier monitoring capability may be degraded.</p> <p>Although it may be difficult to predict when power can be restored, the Emergency Coordinator needs a reasonable idea of how quickly to declare a General Emergency based on two major considerations:</p> <ol style="list-style-type: none"> 1. Are there any present indications that core cooling is already degraded to the point that Loss or Potential Loss of Fission Product Barriers is IMMINENT? 2. If there are no present indications of such core cooling degradation, how likely is it that power can be restored in time to assure that a loss of two barriers with a potential loss of the third barrier can be prevented? <p>Thus, indication of continuing core cooling degradation must be based on Fission Product Barrier monitoring with particular emphasis on Emergency Coordinator judgment as it relates to IMMINENT Loss or Potential Loss of fission product barriers and degraded ability to monitor fission product barriers.</p>	<p>SS1 – Basis:</p> <p>Loss of all AC power to emergency busses compromises all plant safety systems requiring electric power including decay heat removal, emergency core cooling, containment heat removal and the Ultimate Heat Sink. Prolonged loss of all AC power to emergency busses will lead to a loss of Fuel Clad, RCS and Containment, thus this event can escalate to a General Emergency.</p> <p>Fifteen minutes was selected as a threshold to exclude transient or momentary losses of off-site power.</p> <p>Escalation to General Emergency is via Fission Product Barrier Degradation or IC SG1, "Prolonged Loss of All Off-site Power and Prolonged Loss of All On-site AC Power."</p>	<p>SA5 – Basis:</p> <p>The condition indicated by this IC is the degradation of the off-site and on-site AC power systems such that any additional single failure would result in a station blackout. This condition could occur due to a loss of off-site power with a concurrent failure of all but one emergency generator to supply power to its emergency busses. Another related condition could be the loss of all off-site power and loss of on-site emergency generators with only one train of emergency busses being backed from the unit main generator, or the loss of on-site emergency generators with only one train of emergency busses being backed from off-site power. The subsequent loss of this single power source would escalate the event to a Site Area Emergency in accordance with SS1.</p> <p>Fifteen minutes was selected as a threshold to exclude transient or momentary losses of off-site power.</p>	<p>SU1 – Basis:</p> <p>Prolonged loss of off-site AC power reduces required redundancy and potentially degrades the level of safety of the plant by rendering the plant more vulnerable to a complete loss of AC power to emergency busses.</p> <p>Fifteen minutes was selected as a threshold to exclude transient or momentary losses of off-site power.</p>
	<p>SG2 – Basis:</p> <p>Under these conditions, the reactor is producing more heat than the maximum decay heat load for which the safety systems are designed and efforts to bring the reactor subcritical are unsuccessful.</p> <p>The extreme challenge to the ability to cool the core is intended to mean that the core exit temperatures are at or approaching 1200 °C or that the reactor vessel water level is below the top of active fuel and is addressed by the Core Heat Removal Safety Function.</p> <p>The inability to initially remove heat during the early stages of this sequence (if emergency feedwater flow is insufficient to remove the amount of heat required by design from at least one steam generator, an extreme challenge should be considered to exist) is addressed by the RCS Heat Removal Safety Function.</p> <p>In the event either of these challenges exists at a time that the reactor has not been brought below the power associated with the safety system design a core melt sequence exists. In this situation, core degradation can occur rapidly. For this reason, the General Emergency declaration is intended to be anticipatory of the fission product barrier table declaration to permit maximum off-site intervention time.</p>	<p>SS2 – Basis:</p> <p>Under these conditions, the reactor is producing more heat than the maximum decay heat load for which the safety systems are designed. A Site Area Emergency is indicated because conditions exist that lead to IMMINENT loss or potential loss of both fuel clad and RCS.</p> <p>Manual scram (trip) actions taken at the Reactor Turbine Generator Board (RTGB) are any set of actions by the reactor operator(s) at which causes or should cause control rods to be rapidly inserted into the core and shuts down the reactor.</p> <p>Automatic and manual actuation is not considered successful if action away from the Reactor Turbine Generator Board (RTGB) is required to trip the reactor. This EAL is still applicable even if actions taken away from the Reactor Turbine Generator Board (RTGB) are successful in shutting the reactor down because the design limits of the fuel may have been exceeded or because of the gross failure of the Reactor Protection System to shutdown the plant.</p> <p>Escalation of this event to a General Emergency would be due to a prolonged condition leading to an extreme challenge to either core-cooling or heat removal.</p>	<p>SA2 – Basis:</p> <p>Manual trip actions taken at the Reactor Turbine Generator Board (RTGB) are any set of actions by the Reactor Operator(s) which causes or should cause control rods to be rapidly inserted into the core and shuts down the reactor.</p> <p>This condition indicates failure of the automatic protection system to trip the reactor. This condition is more than a potential degradation of a safety system in that a front line automatic protection system did not function in response to a plant transient. Thus the plant safety has been compromised because design limits of the fuel may have been exceeded. An Alert is indicated because conditions may exist that lead to potential loss of fuel clad or RCS and because of the failure of the Reactor Protection System to automatically shutdown the plant.</p> <p>If manual actions taken at the Reactor Turbine Generator Board (RTGB) fail to shutdown the plant, the event would escalate to a Site Area Emergency.</p>	<p>SU8 – Basis:</p> <p>This IC addresses inadvertent criticality events. This IC indicates a potential degradation of the level of safety of the plant, warranting a Notification of Unusual Event (NOUE) classification. This IC excludes inadvertent criticalities that occur during planned reactivity changes associated with reactor startups (e.g., criticality earlier than estimated).</p> <p>The term "sustained" is used in order to allow exclusion of expected short term positive startup rates from planned control rod movements such as shutdown bank withdrawal. These short term positive startup rates are the result of the increase in neutron population due to subcritical multiplication.</p> <p>Escalation would be by the Fission Product Barrier Table, as appropriate to the operating mode at the time of the event.</p>
		<p>SS3 – Basis:</p> <p>Loss of all DC power compromises ability to monitor and control plant safety functions. Prolonged loss of all DC power will cause core uncovering and loss of containment integrity when there is significant decay heat and sensible heat in the reactor system.</p> <p>Fifteen minutes was selected to exclude transient or momentary power losses.</p> <p>Escalation to a General Emergency would occur by Abnormal Rad Levels/Radiological Effluent, Fission Product Barrier Table.</p>	<div>DEFINITION BOX</div> <p>IMMINENT – Mitigation actions have been ineffective, additional actions are not expected to be successful, and trended information indicates that the event or condition will occur. Where IMMINENT timeframes are specified, they shall apply.</p>	

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

Rec. Cat.	General Emergency	Alert	Unusual Event	Unusual Event
S - SYSTEM MALFUNCTIONS	Site Area Emergency SS6 - Basis: This IC recognizes the threat to plant safety associated with complete loss of capability of the control room staff to monitor the plant response to a significant transient. "Planned" and "UNPLANNED" actions are not differentiated since the loss of instrumentation of this magnitude is of such significance during a transient that the cause of the loss is not an ameliorating factor. Quantification is arbitrary, however, it is estimated that if approximately 75% of the safety system annunciators or indicators are lost, there is an increased risk that a degraded plant condition could go undetected. It is not intended that plant personnel perform a detailed count of the instrumentation lost but use the value as a judgment threshold for determining the severity of the plant conditions. It is also not intended that the Shift Supervisor be tasked with making a judgment decision as to whether additional personnel are required to provide increased monitoring of system operation. It is further recognized that most plant designs provide redundant safety system indication powered from separate uninterruptible power supplies. While failure of a large portion of annunciators is more likely than a failure of a large portion of indications, the concern is included in this EAL due to difficulty associated with assessment of plant conditions. The loss of specific, or several, safety system indicators should remain a function of that specific system or component operability status. This will be addressed by the specific Technical Specification. The initiation of a Technical Specification imposed plant shutdown related to the instrument loss will be reported via 10 CFR 50.72. If the shutdown is not in compliance with the Technical Specification action, the Notification of Unusual Event (NOUE) is based on SU2 "Inability to Reach Required Shutdown Within Technical Specification Limits." A Site Area Emergency is considered to exist if the control room staff cannot monitor safety functions needed for protection of the public while a significant transient is in progress. 1[2]-ONP-100.03 details the safety annunciators on each Control Room panel. Indications needed to monitor safety functions necessary for protection of the public must include control room indications, computer generated indications and dedicated annunciation capability. "Compensatory indications" in this context are computer based information provided by Distributed Control System and the Qualified Safety Parameter Display System. This should include all computer systems available for this use depending on specific plant design and subsequent retrofits. Fifteen minutes was selected as a threshold to exclude transient or momentary power losses.	SA4 - Basis: This IC is intended to recognize the difficulty associated with monitoring changing plant conditions without the use of a major portion of the annunciation or indication equipment during a significant transient. "Planned" loss of annunciators or indicators includes scheduled maintenance and testing activities. If approximately 75% of the safety system annunciators or indicators are lost, there is an increased risk that a degraded plant condition could go undetected. 1[2]-ONP-100.03 details the safety annunciators on each Control Room panel. It is not intended that the Unit Supervisor be tasked with making a judgment decision as to whether additional personnel are required to provide supplementary monitoring of system operation. It is further recognized that most plant designs provide redundant safety system indication powered from separate uninterruptible power supplies. While failure of a large portion of annunciators is more likely than a failure of a large portion of indications, the concern is included in this EAL due to difficulty associated with assessment of plant conditions. The loss of specific, or several, safety system indicators should remain a function of that specific system or component operability status. This will be addressed by the specific Technical Specification. The initiation of a Technical Specification imposed plant shutdown related to the instrument loss will be reported via 10 CFR 50.72. If the shutdown is not in compliance with the Technical Specification action, the Notification of Unusual Event (NOUE) is based on SU2 "Inability to Reach Required Shutdown Within Technical Specification Limits." "Compensatory indications" in this context are computer based information provided by Distributed Control System and the Qualified Safety Parameter Display System. If both a major portion of the annunciation system and all computer monitoring are unavailable, the Alert is required. Fifteen minutes was selected as a threshold to exclude transient or momentary power losses. This Alert will be escalated to a Site Area Emergency if the operating crew cannot monitor the transient in progress due to a concurrent loss of compensatory indications with a significant transient in progress during the loss of annunciation or indication.	SU3 - Basis: This IC and its associated EAL are intended to recognize the difficulty associated with monitoring changing plant conditions without the use of a major portion of the annunciation or indication equipment. Recognition of the availability of computer based indication provided by Distributed Control System and the Qualified Safety Parameter Display System. "Planned" loss of annunciators or indicators includes scheduled maintenance and testing activities. Quantification is arbitrary, however, it is estimated that if approximately 75% of the safety system annunciators or indicators are lost, there is an increased risk that a degraded plant condition could go undetected. 1[2]-ONP-100.03 details the safety annunciators on each Control Room panel. It is not intended that plant personnel perform a detailed count of the instrumentation lost but use the value as a judgment threshold for determining the severity of the plant conditions. It is recognized that most plant designs provide redundant safety system indication powered from separate uninterruptible power supplies. While failure of a large portion of annunciators is more likely than a failure of a large portion of indications, the concern is included in this EAL due to difficulty associated with assessment of plant conditions. The loss of specific, or several, safety system indicators should remain a function of that specific system or component operability status. This will be addressed by the specific Technical Specification. The initiation of a Technical Specification imposed plant shutdown related to the instrument loss will be reported via 10 CFR 50.72. If the shutdown is not in compliance with the Technical Specification action, the Notification of Unusual Event (NOUE) is based on SU2 "Inability to Reach Required Shutdown Within Technical Specification Limits." Fifteen minutes was selected as a threshold to exclude transient or momentary power losses. This Notification of Unusual Event (NOUE) will be escalated to an Alert based on a concurrent loss of compensatory indications or if a significant transient is in progress during the loss of annunciation or indication.	SU2 - Basis: Limiting Conditions of Operation (LCOs) require the plant to be brought to a required operating mode when the Technical Specification required configuration cannot be restored. Depending on the circumstances, this may or may not be an emergency or precursor to a more severe condition. In any case, the initiation of plant shutdown required by the site Technical Specifications requires a four hour report under 10 CFR 50.72 (b) Non-emergency events. The plant is within its safety envelope when being shut down within the allowable action statement time in the Technical Specifications. An immediate Notification of Unusual Event (NOUE) is required when the plant is not brought to the required operating mode within the allowable action statement time in the Technical Specifications. Declaration of a Notification of Unusual Event (NOUE) is based on the time at which the LCO-specified action statement time period elapses under the site Technical Specifications and is not related to how long a condition may have existed.
			SU5 - Basis: This IC is included as a Notification of Unusual Event (NOUE) because it may be a precursor of more serious conditions and, as result, is considered to be a potential degradation of the level of safety of the plant. The 10 gpm value for the unidentified and pressure boundary leakage was selected as it is observable with normal control room indications. Lesser values must generally be determined through time-consuming surveillance tests (e.g., mass balances). Relief valve normal operation should be excluded from this IC. However, a relief valve that operates and fails to close per design should be considered applicable to this IC if the relief valve cannot be isolated. The EAL for identified leakage is set at a higher value due to the lesser significance of identified leakage in comparison to unidentified or pressure boundary leakage. In either case, escalation of this IC to the Alert level is via Fission Product Barrier Table.	
			SU4 - Basis: This EAL is included because it is a precursor of more serious conditions and, as result, is considered to be a potential degradation of the level of safety of the plant. This threshold addresses coolant samples exceeding coolant Technical Specifications for transient iodine spiking limits. Escalation of this IC to the Alert level is via the Fission Product Barrier Table.	

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category
	<p>SS6 Inability to Monitor a Significant Transient in Progress. (08)</p> <p>Operating Mode Applicability: 1, 2, 3, 4</p> <p>EAL Values:</p> <p><i>Note:</i> The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition has exceeded, or will likely exceed, the applicable time.</p> <p>1. Loss of greater than approximately 75% of the following for 15 minutes or longer per 1[2]-AOP-100.03:</p> <p>a. Control Room Safety System annunciation.</p> <p>OR</p> <p>b. Control Room Safety System indication associated with the above annunciators.</p> <p>AND</p> <p>BOTH of the following apply:</p> <ul style="list-style-type: none"> ANY of the following: <ul style="list-style-type: none"> Electrical load rejection greater than 25% full electrical load Reactor Trip Safety Injection Actuation <p>AND</p> <ul style="list-style-type: none"> Distributed Control System (DCS) AND Qualified Safety Parameter Display System (QSPDS) are unavailable. 	<p>SA4 UNPLANNED Loss of Safety System Annunciation or Indication in the Control Room With Either (1) a Significant Transient in Progress, or (2) Compensatory Indicators Unavailable. (08)</p> <p>Operating Mode Applicability: 1, 2, 3, 4</p> <p>EAL Values:</p> <p><i>Note:</i> The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition has exceeded, or will likely exceed, the applicable time.</p> <p>1. UNPLANNED loss of greater than approximately 75% of the following for 15 minutes or longer per 1[2]-AOP-100.03:</p> <p>a. Control Room Safety System annunciation.</p> <p>OR</p> <p>b. Control Room Safety System indication associated with the above annunciators.</p> <p>AND</p> <p>EITHER of the following apply:</p> <ul style="list-style-type: none"> ANY of the following: <ul style="list-style-type: none"> Electrical load rejection greater than 25% full electrical load Reactor Trip Safety Injection Actuation <p>OR</p> <ul style="list-style-type: none"> Distributed Control System (DCS) AND Qualified Safety Parameter Display System (QSPDS) are unavailable. 	<p>SU3 UNPLANNED Loss of Safety System Annunciation or Indication in the Control Room for 15 Minutes or Longer (08)</p> <p>Operating Mode Applicability: 1, 2, 3, 4</p> <p>EAL Values:</p> <p><i>Note:</i> The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition has exceeded, or will likely exceed the applicable time.</p> <p>1. UNPLANNED loss of greater than approximately 75% of the following for 15 minutes or longer per 1[2]-AOP-100.03:</p> <p>a. Control Room Safety System annunciation.</p> <p>OR</p> <p>b. Control Room Safety System indication associated with the above annunciators.</p>	<p>ANNUNCIATORS</p> <p>RCS LEAKAGE</p> <p>FUEL CLAD</p> <p>TECH SPECS</p> <p>S - SYSTEM MALFUNCTIONS</p>
	<p>GUIDANCE BOX FOR SS6, SA4, SU3</p> <p>Safety System indication can not be lost without concurrent loss of Safety System annunciation.</p>	<p>GUIDANCE BOX FOR SU3</p> <p>See also 2. RCS Leak Rate in the Fission Product Barrier (FPB) Table.</p>	<p>SU5 RCS Leakage. (08)</p> <p>Operating Mode Applicability: 1, 2, 3, 4</p> <p>EAL Values:</p> <p>1. Unidentified OR pressure boundary leakage greater than 10 gpm.</p> <p>OR</p> <p>2. Identified leakage greater than 25 gpm.</p>	
<p>DEFINITION BOX</p> <p>UNPLANNED - A parameter change or an event that is not the result of an intended evolution and requires corrective or mitigative actions.</p> <p>RCS LEAK RATE - Comprised of IDENTIFIED and UNIDENTIFIED LEAKAGE as defined by Technical Specifications.</p> <p>UNIDENTIFIED LEAKAGE - Leakage which is not IDENTIFIED LEAKAGE or CONTROLLED LEAKAGE.</p> <p>CONTROLLED LEAKAGE - Seal water flow supplied from the reactor coolant pump seals.</p>	<p>IDENTIFIED LEAKAGE:</p> <p>a. Leakage (except CONTROLLED LEAKAGE) into closed systems, such as pump seal or valve packing leaks that are captured, and conducted to a sump or collecting tank, or</p> <p>b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or</p> <p>c. Reactor Coolant System leakage through a steam generator to the secondary system (Primary-to-secondary leakage).</p>	<p>GUIDANCE BOX FOR SU4</p> <p>See also 2. Primary Coolant Activity in the Fission Product Barrier (FPB) Table.</p>	<p>SU4 Fuel Clad Degradation. (08)</p> <p>Operating Mode Applicability: 1, 2, 3, 4</p> <p>EAL Values:</p> <p>1. Reactor Coolant sample activity value indicating fuel clad degradation greater than:</p> <p>a. 60.0 uCi/gm Dose Equivalent I-131</p> <p>OR</p> <p>b. Specific activity greater than 518.9 uCi/gm Dose Equivalent Xe-133</p>	
			<p>SU2 Inability to Reach Required Shutdown Within Technical Specification Limits. (08)</p> <p>Operating Mode Applicability: 1, 2, 3, 4</p> <p>EAL Values:</p> <p>1. Plant is NOT brought to required operating mode within Technical Specifications LCO Action Statement Time.</p>	

APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
S - SYSTEM MALFUNCTIONS				<p>SU6 - Basis:</p> <p>The purpose of this IC and its associated EALs is to recognize a loss of communications capability that either defeats the plant operations staff ability to perform routine tasks necessary for plant operations or the ability to communicate issues with off-site authorities. The loss of off-site communications ability is expected to be significantly more comprehensive than the condition addressed by 10 CFR 50.72.</p> <p>The availability of one method of ordinary off-site communications is sufficient to inform federal, state, and local authorities of plant problems. This EAL is intended to be used only when extraordinary means (e.g., relaying of information from radio transmissions, individuals being sent to off-site locations, etc.) are being used to make communications possible.</p> <p>The list for on-site communications loss encompasses the loss of all means of communications routinely used for operations.</p> <p>The list for off-site communications loss encompasses the loss of all means of communications routinely used for off-site emergency notifications.</p>

APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category
			SU6 Loss of All On-site or Off-site Communications Capabilities. (08) Operating Mode Applicability: 1, 2, 3, 4 EAL Values: 1. Loss of ALL of the following on-site communication methods affecting the ability to perform routine operations: • Plant Page • Plant Radio • Commercial Phones* <u>OR</u> 2. Loss of ALL of the following off-site communication methods in EITHER box: State and County Notifications • Hot Ringdown (HRD) • Commercial phone* • EMnet <u>OR</u> NRC Notifications • Emergency Notification System (ENS) • Commercial phone*	COMMUNICATIONS S - SYSTEM MALFUNCTIONS
			<div> <div>GUIDANCE FOR SU6</div> <div>* Commercial phones include installed cell phones in the Control Room, but not personal cell phones.</div> </div>	

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

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APPENDIX A
EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

RECOGNITION CATEGORY H
HAZARDS AND OTHER CONDITIONS
AFFECTING PLANT SAFETY

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

Rec. Cat.	General Emergency	Alert	Alert	Unusual Event
H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY	<p>HG1 – Basis:</p> <p>EAL #1 encompasses conditions under which a HOSTILE ACTION has resulted in a loss of physical control of ESSENTIAL AREAS (containing vital equipment or controls of vital equipment) required to maintain safety functions and control of that equipment cannot be transferred to and operated from another location.</p> <p>These safety functions are reactivity control, RCS inventory, and secondary heat removal. If control of the plant equipment necessary to maintain safety functions can be transferred to another location, then the above threshold is not met.</p> <p>EAL #2 addresses failure of spent fuel cooling systems as a result of HOSTILE ACTION if IMMINENT fuel damage is likely, such as when a freshly off-loaded reactor core is in the spent fuel pool.</p>	<p>HA4 – Basis:</p> <p><i>Note:</i> <i>Timely and accurate communication between Security Shift Supervision and the Control Room is crucial for the implementation of effective Security EALs.</i></p> <p>These EALs address the contingency for a very rapid progression of events, such as that experienced on September 11, 2001. They are not premised solely on the potential for a radiological release. Rather the issue includes the need for rapid assistance due to the possibility for significant and indeterminate damage from additional air, land or water attack elements.</p> <p>The fact that the site is under serious attack or is an identified attack target with minimal time available for further preparation or additional assistance to arrive requires a heightened state of readiness and implementation of protective measures that can be effective (such as on-site evacuation, dispersal or sheltering).</p> <p>EAL #1 addresses the potential for a very rapid progression of events due to a HOSTILE ACTION. It is not intended to address incidents that are accidental events or acts of civil disobedience, such as small aircraft impact, hunters, or physical disputes between employees within the OWNER CONTROLLED AREA (OCA). Those events are adequately addressed by other EALs.</p> <p><i>Note that this EAL is applicable for any HOSTILE ACTION occurring, or that has occurred, in the OWNER CONTROLLED AREA. This includes ISFSIs that may be outside the PROTECTED AREA but still within the OWNER CONTROLLED AREA.</i></p> <p>EAL #2 addresses the immediacy of an expected threat arrival or impact on the site within a relatively short time.</p> <p>The intent of this is to ensure that notifications for the airliner attack threat are made in a timely manner and that Offsite Response Organizations (OROs) and plant personnel are at a state of heightened awareness regarding the credible threat. Airliner is meant to be a large aircraft with the potential for causing significant damage to the plant.</p> <p>This EAL is met when a plant receives information regarding an airliner attack threat from NRC and the airliner is within 30 minutes of the plant. Only the plant to which the specific threat is made need declare the Alert.</p> <p>The NRC Headquarters Operations Officer (HOO) will communicate to the licensee if the threat involves an airliner (airliner is meant to be a large aircraft with the potential for causing significant damage to the plant). The status and size of the plane may be provided by NORAD through the NRC.</p>	<p>HA1 – Basis:</p> <p>These EALs escalate from HU1 in that the occurrence of the event has resulted in VISIBLE DAMAGE to plant structures or areas containing equipment necessary for a safe shutdown, or has caused damage to the safety systems in those structures evidenced by Control Room indications of degraded system response or performance. The occurrence of VISIBLE DAMAGE and/or degraded system response is intended to discriminate against lesser events. The initial report should not be interpreted as mandating a lengthy damage assessment prior to classification. No attempt is made in this EAL to assess the actual magnitude of the damage. The significance here is not that a particular system or structure was damaged, but rather, that the event was of sufficient magnitude to cause this degradation.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on System Malfunction ICs.</p> <p>EALs #2 – #5 refer to specific structures or areas that contain safety system or component and functions required for safe shutdown of the plant.</p> <p>In EAL #1 Seismic events of this magnitude can result in ESSENTIAL AREAS being subjected to forces beyond design limits, and thus damage may be assumed to have occurred to plant safety systems. The US Geological Survey (USGS) National Earthquake Information Center can confirm if an earthquake has occurred in the area of the plant.</p> <p>EAL #2 is based on a tornado striking (touching down) or high winds that have caused VISIBLE DAMAGE to structures containing functions or systems required for safe shutdown of the plant.</p>	<p>HU4 – Basis (continued):</p> <p>EAL #3 is to ensure that notifications for the aircraft threat are made in a timely manner and that Offsite Response Organizations (OROs) and plant personnel are at a state of heightened awareness regarding the credible threat. It is not the intent of this EAL to replace existing non-hostile related EALs involving aircraft.</p> <p>This EAL is met when a plant receives information regarding an aircraft threat from NRC. Validation is performed by calling the NRC or by other approved methods of authentication. Only the plant to which the specific threat is made need declare the Unusual Event.</p> <p>The NRC Headquarters Operations Officer (HOO) will communicate to the licensee if the threat involves an airliner (airliner is meant to be a large aircraft with the potential for causing significant damage to the plant). The status and size of the plane may be provided by NORAD through the NRC.</p> <p>Escalation to Alert emergency classification level would be via HA4 would be appropriate if the threat involves an airliner within 30 minutes of the plant.</p>
	<p>Site Area Emergency</p> <p>HS4 – Basis:</p> <p>This condition represents an escalated threat to plant safety above that contained in the Alert in that a hostile force has progressed from the OWNER CONTROLLED AREA to the PROTECTED AREA.</p> <p>This EAL addresses the contingency for a very rapid progression of events, such as that experienced on September 11, 2001. It is not premised solely on the potential for a radiological release. Rather the issue includes the need for rapid assistance due to the possibility for significant and indeterminate damage from additional air, land or water attack elements.</p> <p>The fact that the site is under serious attack with minimal time available for further preparation or additional assistance to arrive requires Offsite Response Organization (ORO) readiness and preparation for the implementation of protective measures.</p> <p>This EAL addresses the potential for a very rapid progression of events due to a HOSTILE ACTION. It is not intended to address incidents that are accidental events or acts of civil disobedience, such as small aircraft impact, hunters, or physical disputes between employees within the PROTECTED AREA. Those events are adequately addressed by other EALs.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on actual plant status after impact or progression of attack.</p>	<p>HA5 – Basis:</p> <p>With the Control Room evacuated, additional support, monitoring and direction through the Technical Support Center and/or other emergency response facilities may be necessary.</p> <p>Inability to establish plant control from outside the Control Room will escalate this event to a Site Area Emergency.</p>	<p>Unusual Event</p> <p>HU4 – Basis:</p> <p><i>Note:</i> <i>Timely and accurate communication between Security Shift Supervision and the Control Room is crucial for the implementation of effective Security EALs.</i></p> <p>Security events which do not represent a potential degradation in the level of safety of the plant are reported under 10 CFR 73.71 or in some cases under 10 CFR 50.72. Security events assessed as HOSTILE ACTIONS are classifiable under HA4, HS4 and HG1.</p> <p>A higher initial classification could be made based upon the nature and timing of the security threat and potential consequences. The licensee shall consider upgrading the emergency response status and emergency classification level in accordance with the site's Physical Security Plan and Emergency Plan.</p> <p>Reference is made to site specific security shift supervision because these individuals are the designated personnel on-site qualified and trained to confirm that a security event is occurring or has occurred. Training on security event classification confirmation is closely controlled due to the strict secrecy controls placed on the plant Physical Security Plan.</p> <p>EAL #1 is based on the Physical Security Plan. Safeguards Contingency Plans are based on guidance provided by NEI 03-12, Template for Security Plan, Training and Qualification Plan.</p> <p>EAL #2 is included to ensure that appropriate notifications for the security threat are made in a timely manner. This includes information of a credible threat. Only the plant to which the specific threat is made need declare the Notification of an Unusual Event.</p> <p>The determination of "credible" is made through use of information found in the Physical Security Plan.</p>	<p>HU1 – Basis:</p> <p>These EALs are categorized on the basis of the occurrence of an event of sufficient magnitude to be of concern to plant operators.</p> <p>EAL #1: Damage may be caused to some portions of the site, but should not affect ability of safety functions to operate.</p> <p>As defined in the EPRI-sponsored Guidelines for Nuclear Plant Response to an Earthquake, dated October 1989, a "felt earthquake" is: An earthquake of sufficient intensity such that: (a) the vibratory ground motion is felt at the nuclear plant site and recognized as an earthquake based on a consensus of control room operators on duty at the time, and (b) for plants with operable seismic instrumentation, the seismic switches of the plant are activated.</p> <p>The US Geological Survey (USGS) National Earthquake Information Center can confirm if an earthquake has occurred in the area of the plant.</p> <p>EAL #2 is based on the assumption that a tornado striking (touching down) or high winds within PROTECTED AREA.</p> <p>EAL #3 This EAL addresses the effect of internal flooding caused by events such as component failures, equipment misalignment, or outage activity mishaps.</p>
	<p>HS2 – Basis:</p> <p>The intent of this IC is to capture those events where control of the plant cannot be reestablished in a timely manner. In this case, expeditious transfer of control of safety systems has not occurred (although fission product barrier damage may not yet be indicated).</p> <p>The intent of the EAL is to establish control of important plant equipment and knowledge of important plant parameters in a timely manner. Primary emphasis should be placed on those components and instruments that supply protection for and information about safety functions. These safety functions are reactivity control, RCS inventory, and secondary heat removal.</p> <p>The determination of whether or not control is established at the remote shutdown panel is based on Emergency Coordinator (EC) judgment. The Emergency Coordinator is expected to make a reasonable, informed judgment within the 15 minute timeframe for transfer that the licensee has control of the plant from the remote shutdown panel.</p> <p>Escalation of this emergency classification level, if appropriate, would be by Fission Product Barrier Table or Abnormal Rad Levels/Radiological Effluent EALs.</p>		<p>(Continued in next column)</p>	

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

General Emergency		Site Area Emergency	Alert	Unusual Event	Recognition Category																			
HG1 HOSTILE ACTION Resulting in Loss of Physical Control of the Facility. Operating Mode Applicability: All EAL Values: 1. A HOSTILE ACTION has occurred such that plant personnel are unable to operate equipment required to maintain safety functions. OR 2. A HOSTILE ACTION has caused failure of Spent Fuel Cooling Systems and IMMINENT fuel damage is likely for a FRESHLY OFF-LOADED REACTOR CORE IN POOL.	HS4 HOSTILE ACTION within the PROTECTED AREA Cannot be Established. Operating Mode Applicability: All EAL Values: 1. A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the Security Shift Supervisor.	HA4 HOSTILE ACTION within the OWNER CONTROLLED AREA or Airborne Attack Threat Operating Mode Applicability: All EAL Values: 1. A HOSTILE ACTION is occurring or has occurred within the OWNER CONTROLLED AREA as reported by the Security Shift Supervisor. OR 2. A validated notification from NRC of an AIRLINER attack threat within 30 minutes of the site.	HU4 Confirmed SECURITY CONDITION or Threat Which Indicates a Potential Degradation in the Level of Safety of the Plant. Operating Mode Applicability: All EAL Values: 1. A SECURITY CONDITION that does NOT involve a HOSTILE ACTION as reported by the Security Shift Supervisor. OR 2. A credible St. Lucie security threat notification. OR 3. A validated notification from NRC providing information of an aircraft threat.	SECURITY																				
	HS2 Control Room Evacuation Has Been Initiated and Plant Control Cannot be Established. Operating Mode Applicability: All EAL Values: 1. Control Room evacuation has been initiated. AND a. Control of the plant cannot be established within 15 minutes.	HA5 Control Room Evacuation has been Initiated. Operating Mode Applicability: All EAL Values: 1. 1[2]-ONP-100.02, Control Room Inaccessibility, requires Control Room evacuation.		CR EVACUATION																				
DEFINITION BOX AIRLINER – Airliner is meant to be a large aircraft with the potential for causing significant damage to the plant. ESSENTIAL AREAS – Areas within the PROTECTED AREA, that contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation. FRESHLY OFF-LOADED REACTOR CORE IN POOL – A freshly off-loaded reactor core, in the Spent Fuel Pool, exists during the period of time when core off-load begins until core reload is complete. HOSTILE ACTION – An act toward a Nuclear Power Plant (NPP) 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. Other acts that satisfy the overall intent may be included. HOSTILE ACTION should not be construed to include acts of civil disobedience or felonious acts that are not part of a concerted attack on the NPP. Non-terrorism-based EALs should be used to address such activities (i.e., this may include violent acts between individuals in the owner controlled area). IMMINENT – Mitigation actions have been ineffective, additional actions are not expected to be successful, and trended information indicates that the event or condition will occur. Where IMMINENT timeframes are specified, they shall apply. OWNER CONTROLLED AREA – That portion of FPL property surrounding and including the St. Lucie Nuclear Power Plant which is subject to limited access and control as deemed appropriate by FPL. [EPlan] 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. SECURITY CONDITION – Any Security Event as listed in the approved security contingency plan that constitutes a threat/compromise to site security, threat/risk to site personnel, or a potential degradation to the level of safety of the plant. A SECURITY CONDITION does not involve a HOSTILE ACTION. VISIBLE DAMAGE – Damage to equipment or structure that is readily observable without measurements, testing, or analysis. Damage is sufficient to cause concern regarding the continued operability or reliability of the affected structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, and paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.		HA1 Natural or Destructive Phenomena Affecting ESSENTIAL AREAS. Operating Mode Applicability: All EAL Values: 1. Seismic event greater than Operating Basis Earthquake (OBE) as indicated by seismic instrumentation (Annunciator S-36[S-44]) GREATER THAN 0.05 g. AND a. Earthquake confirmed by ANY of the following: <ul style="list-style-type: none">Earthquake felt in plantUS Geological Survey (USGS) National Earthquake Information CenterControl Room indication of degraded performance of systems required for the safe shutdown of the plant. OR 2. Tornado striking OR high winds greater than 120 mph resulting in VISIBLE DAMAGE to ANY of the following structures containing safety systems or component OR Control Room indication of degraded performance of those safety systems: <table><tr><td>Reactor Containment Building and Shield Building</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Reactor Auxiliary Building (RAB)</td><td>Component Cooling Water (CCW) platform area</td></tr><tr><td>Steam Trestle Area</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Condensate Storage Tank (CST)</td><td>Diesel Oil Storage Tank (DOST)</td></tr><tr><td>Ultimate Heat Sink (UHS)</td><td>Refueling Water Tank (RWT)</td></tr></table>	Reactor Containment Building and Shield Building	Intake Cooling Water (ICW)	Reactor Auxiliary Building (RAB)	Component Cooling Water (CCW) platform area	Steam Trestle Area	Emergency Diesel Generator Building	Condensate Storage Tank (CST)	Diesel Oil Storage Tank (DOST)	Ultimate Heat Sink (UHS)	Refueling Water Tank (RWT)	HU1 Natural or Destructive Phenomena Affecting the PROTECTED AREA. Operating Mode Applicability: All EAL Values: 1. Seismic event identified by ANY 2 of the following: <ul style="list-style-type: none">Seismic event confirmed by plant seismic monitor instruments (Annunciators S-46 [S-54])Earthquake felt in plantUS Geological Survey (USGS) National Earthquake Information Center OR 2. Tornado striking within PROTECTED AREA boundary OR high winds greater than 120 mph. OR 3. Internal flooding that has the potential to affect safety related equipment required by Technical Specifications for the current operating mode in ANY of the following areas: <table><tr><td>Control Room</td><td>Intake Structure</td></tr><tr><td>Cable Spreading Room</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Vital Switchgear Room</td><td>Component Cooling Water (CCW)</td></tr><tr><td>Steam Trestle Area</td><td>Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations</td></tr><tr><td>Emergency Diesel Generator Building</td><td></td></tr></table>	Control Room	Intake Structure	Cable Spreading Room	Intake Cooling Water (ICW)	Vital Switchgear Room	Component Cooling Water (CCW)	Steam Trestle Area	Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations	Emergency Diesel Generator Building		NATURAL OR MAN-MADE EVENTS
Reactor Containment Building and Shield Building	Intake Cooling Water (ICW)																							
Reactor Auxiliary Building (RAB)	Component Cooling Water (CCW) platform area																							
Steam Trestle Area	Emergency Diesel Generator Building																							
Condensate Storage Tank (CST)	Diesel Oil Storage Tank (DOST)																							
Ultimate Heat Sink (UHS)	Refueling Water Tank (RWT)																							
Control Room	Intake Structure																							
Cable Spreading Room	Intake Cooling Water (ICW)																							
Vital Switchgear Room	Component Cooling Water (CCW)																							
Steam Trestle Area	Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations																							
Emergency Diesel Generator Building																								
		OR (Continued on next page)	OR (Continued on next page)	H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY																				

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
H - HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY		<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p style="text-align: center; margin: 0;">DEFINITION BOX</p> <p>ESSENTIAL AREAS – Areas within the PROTECTED AREA, that contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation.</p> <p>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.</p> </div>	<p>HA1 – Basis:</p> <p>EAL #3 addresses the effect of internal flooding caused by events such as component failures, equipment misalignment, or outage activity mishaps. It is based on the degraded performance of systems, or has created industrial safety hazards (e.g., electrical shock) that preclude necessary access to operate or monitor safety equipment. The inability to access, operate or monitor safety equipment represents an actual or substantial potential degradation of the level of safety of the plant.</p> <p>Flooding as used in this EAL describes a condition where water is entering the room faster than installed equipment is capable of removal, resulting in a rise of water level within the room. Classification of this EAL should not be delayed while corrective actions are being taken to isolate the water source.</p> <p>EAL #4 addresses the threat to safety related equipment imposed by PROJECTILES generated by main turbine rotating component failures. Therefore, this EAL is consistent with the definition of an ALERT in that the potential exists for actual or substantial potential degradation of the level of safety of the plant.</p> <p>EAL #5 addresses vehicle crashes within the PROTECTED AREA that results in VISIBLE DAMAGE to ESSENTIAL AREAS or indication of damage to safety structures, systems, or components containing functions and systems required for safe shutdown of the plant.</p> <p>EAL #6 addresses other phenomena that result in VISIBLE DAMAGE to the ESSENTIAL AREAS or results in indication of damage to structures, systems, or components containing functions and systems required for safe shutdown of the plant (such as hurricane and storm surge) that can also be precursors of more serious events.</p>	<p>HU1 – Basis:</p> <p>EAL #4 addresses main turbine rotating component failures of sufficient magnitude to cause observable damage to the turbine casing or to the seals of the turbine generator. Generator seal damage observed after generator purge does not meet the intent of this EAL because it did not impact normal operation of the plant.</p> <p>Of major concern is the potential for leakage of combustible fluids (lubricating oils) and gases (hydrogen cooling) to the plant environs. Actual FIRES and flammable gas build up are appropriately classified via HU2 and HU3.</p> <p>This EAL is consistent with the definition of a Notification of Unusual Event (NOUE) while maintaining the anticipatory nature desired and recognizing the risk to non-safety related equipment. Escalation of the emergency classification to HA1 is based on damage done by PROJECTILES generated by the failure or in conjunction with a steam generator tube rupture. These latter events would be classified by the radiological ICs or Fission product Barrier ICs.</p> <p>EAL #6 addresses natural weather phenomena of a hurricane warning and associated rain fall and storm surges.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on VISIBLE DAMAGE, or by other in plant conditions, via HA1.</p>

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category																																								
<div>DEFINITION BOX</div> <p>PROJECTILE – An object directed toward a Nuclear Power Plant (NPP) that could cause concern for its continued operability, reliability, or personnel safety.</p> <p>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.</p> <p>VISIBLE DAMAGE – Damage to equipment or structure that is readily observable without measurements, testing, or analysis. Damage is sufficient to cause concern regarding the continued operability or reliability of the affected structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, and paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.</p>		<p>HA1 (Continued)</p> <p>3. Internal flooding in ANY of the following structures resulting in an electrical shock hazard that precludes access to operate or monitor safety equipment OR Control Room indication of degraded performance of those safety systems:</p> <table><tr><td>Control Room</td><td>Intake Structure</td></tr><tr><td>Cable Spreading Room</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Vital Switchgear Room</td><td>Component Cooling Water (CCW)</td></tr><tr><td>Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Steam Trestle Area</td><td></td></tr></table> <p>OR</p> <p>4. Turbine failure-generated PROJECTILES resulting in VISIBLE DAMAGE to or penetration of ANY of the following structures containing safety systems or components OR Control Room indication of degraded performance of those safety systems:</p> <table><tr><td>Reactor Containment Building and Shield Building</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Reactor Auxiliary Building (RAB)</td><td>Component Cooling Water (CCW) platform area</td></tr><tr><td>Steam Trestle Area</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Condensate Storage Tank (CST)</td><td>Diesel Oil Storage Tank (DOST)</td></tr><tr><td>Ultimate Heat Sink (UHS)</td><td>Refueling Water Tank (RWT)</td></tr></table> <p>OR</p> <p>5. Vehicle crash resulting in VISIBLE DAMAGE to ANY of the following structures containing safety systems, or components OR Control Room indication of degraded performance of those safety systems:</p> <table><tr><td>Reactor Containment Building and Shield Building</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Reactor Auxiliary Building (RAB)</td><td>Component Cooling Water (CCW) platform area</td></tr><tr><td>Steam Trestle Area</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Condensate Storage Tank (CST)</td><td>Diesel Oil Storage Tank (DOST)</td></tr><tr><td>Ultimate Heat Sink (UHS)</td><td>Refueling Water Tank (RWT)</td></tr></table> <p>OR</p> <p>6. Natural occurrences resulting in VISIBLE DAMAGE to ANY of the following structures containing equipment necessary for safe shutdown, OR has caused damage as evidenced by Control Room indication of degraded performance of those systems:</p> <table><tr><td>Control Room</td><td>Intake Structure</td></tr><tr><td>Cable Spreading Room</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Vital Switchgear Room</td><td>Component Cooling Water (CCW)</td></tr><tr><td>Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Steam Trestle Area</td><td></td></tr></table>	Control Room	Intake Structure	Cable Spreading Room	Intake Cooling Water (ICW)	Vital Switchgear Room	Component Cooling Water (CCW)	Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations	Emergency Diesel Generator Building	Steam Trestle Area		Reactor Containment Building and Shield Building	Intake Cooling Water (ICW)	Reactor Auxiliary Building (RAB)	Component Cooling Water (CCW) platform area	Steam Trestle Area	Emergency Diesel Generator Building	Condensate Storage Tank (CST)	Diesel Oil Storage Tank (DOST)	Ultimate Heat Sink (UHS)	Refueling Water Tank (RWT)	Reactor Containment Building and Shield Building	Intake Cooling Water (ICW)	Reactor Auxiliary Building (RAB)	Component Cooling Water (CCW) platform area	Steam Trestle Area	Emergency Diesel Generator Building	Condensate Storage Tank (CST)	Diesel Oil Storage Tank (DOST)	Ultimate Heat Sink (UHS)	Refueling Water Tank (RWT)	Control Room	Intake Structure	Cable Spreading Room	Intake Cooling Water (ICW)	Vital Switchgear Room	Component Cooling Water (CCW)	Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations	Emergency Diesel Generator Building	Steam Trestle Area		<p>HU1 (Continued)</p> <p>4. Turbine failure resulting in casing penetration or damage to turbine or generator seals.</p> <p>OR</p> <p>5. Natural occurrences affecting the PROTECTED AREA; ANY of the following:</p> <ul style="list-style-type: none">Confirmed hurricane warning is in effect.Low intake canal level of -10.5 ft. MLW for 1 hour or more.Visual sightings by station personnel that water levels are approaching storm drain system capacity.	<p>NATURAL OR MAN-MADE EVENTS</p> <p>H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY</p>
	Control Room	Intake Structure																																										
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APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY			<p>HA2 – Basis:</p> <p>VISIBLE DAMAGE is used to identify the magnitude of the FIRE or EXPLOSION and to discriminate against minor FIRES and EXPLOSIONS.</p> <p>The reference to structures containing safety systems or components is included to discriminate against FIRES or EXPLOSIONS in areas having a low probability of affecting safe operation. The significance here is not that a safety system was degraded but the fact that the FIRE or EXPLOSION was large enough to cause damage to these systems.</p> <p>The use of VISIBLE DAMAGE should not be interpreted as mandating a lengthy damage assessment prior to classification. The declaration of an Alert and the activation of the Technical Support Center will provide the Emergency Coordinator with the resources needed to perform detailed damage assessments.</p> <p>The Emergency Coordinator also needs to consider any security aspects of the EXPLOSION.</p> <p>Escalation of this emergency classification level, if appropriate, will be based on System Malfunctions, Fission Product Barrier Degradation or Abnormal Rad Levels / Radiological Effluent ICs.</p>	<p>HU2 – Basis:</p> <p>The purpose of this IC is to address the magnitude and extent of FIRES or EXPLOSIONS that may be potentially significant precursors to damage to safety systems. It addresses the FIRE / EXPLOSION, and not the degradation in performance of affected systems that may result.</p> <p>As used here, detection is visual observation and report by plant personnel or sensor alarm indication.</p> <p>For EAL #1, the 15 minute time period begins with a credible notification that a FIRE is occurring, or indication of a fire detection system alarm/activation. Verification of a fire detection system alarm includes actions that can be taken within the Control Room to ensure that the alarm is not spurious. An alarm is assumed to be an indication of a FIRE unless it is disproved within the 15 minute period by personnel dispatched to the scene. In other words, a personnel report from the scene may be used to disprove a sensor alarm if received within 15 minutes of the alarm, but shall not be required to verify the alarm.</p> <p>The intent of this 15 minute duration is to size the FIRE and to discriminate against small FIRES that are readily extinguished, (e.g., smoldering waste paper basket).</p> <p>EAL #2 addresses only those EXPLOSIONS of sufficient force to damage permanent structures or equipment within the PROTECTED AREA. No attempt is made to assess the actual magnitude of the damage. The occurrence of the EXPLOSION is sufficient for declaration. The Emergency Coordinator also needs to consider any security aspects of the EXPLOSION, if applicable.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on HA2.</p>
			<p>HA3 – Basis:</p> <p>Gases in an ESSENTIAL AREA can affect the ability to safely operate or safely shutdown the reactor.</p> <p>The fact that SCBA may be worn does not eliminate the need to declare the event.</p> <p>Declaration should not be delayed for confirmation from atmospheric testing if the atmosphere poses an immediate threat to life and health or an immediate threat of severe exposure to gases. This could be based upon documented analysis, indication of personal ill effects from exposure, or operating experience with the hazards.</p> <p>If the equipment in the stated area was already inoperable, or out of service, before the event occurred, then this EAL should not be declared as it will have no adverse impact on the ability of the plant to safely operate or safely shutdown beyond that already allowed by Technical Specifications at the time of the event.</p> <p>An asphyxiant is a gas capable of reducing the level of oxygen in the body to dangerous levels. Most commonly, asphyxiants work by merely displacing air in an enclosed environment. This reduces the concentration of oxygen below the normal level of around 19%, which can lead to breathing difficulties, unconsciousness or even death.</p> <p>An uncontrolled release of flammable gasses within a facility structure has the potential to affect safe operation of the plant by limiting either operator or equipment operations due to the potential for ignition and resulting equipment damage/personnel injury. Flammable gasses, such as hydrogen and acetylene, are routinely used to maintain plant systems (hydrogen) or to repair equipment/components (acetylene - used in welding). This EAL assumes concentrations at which gasses can ignite/support combustion.</p> <p>Escalation to a higher emergency classification level, if appropriate, will be based on System Malfunction, Fission Product Barrier Table or Abnormal Rad Levels / Radioactive Effluent ICs.</p>	<p>HU3 – Basis:</p> <p>This IC is based on the release of toxic, corrosive, asphyxiant or flammable gasses of sufficient quantity to affect NORMAL PLANT OPERATIONS.</p> <p>The fact that SCBA may be worn does not eliminate the need to declare the event.</p> <p>This IC is not intended to require significant assessment or quantification. It assumes an uncontrolled process that has the potential to affect plant operations. This would preclude small or incidental releases, or releases that do not impact structures needed for plant operation.</p> <p>An asphyxiant is a gas capable of reducing the level of oxygen in the body to dangerous levels. Most commonly, asphyxiants work by merely displacing air in an enclosed environment. This reduces the concentration of oxygen below the normal level of around 19%, which can lead to breathing difficulties, unconsciousness or even death.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on HA3.</p>

APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category																										
<div>DEFINITION BOX</div> <p>ESSENTIAL AREAS – Areas within the PROTECTED AREA, that contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation.</p> <p>EXPLOSION – A rapid, violent, unconfined combustion, or catastrophic failure of pressurized/energized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems, or components.</p> <p>FIRE – Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute FIRES. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.</p> <p>NORMAL PLANT OPERATIONS – Activities at the plant site associated with routine testing, maintenance, or equipment operations, in accordance with normal operating or administrative procedures. Entry into abnormal or emergency operating procedures, or deviation from normal security or radiological controls posture, is a departure from NORMAL PLANT OPERATIONS.</p> <p>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.</p> <p>VISIBLE DAMAGE – Damage to equipment or structure that is readily observable without measurements, testing, or analysis. Damage is sufficient to cause concern regarding the continued operability or reliability of the affected structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, and paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.</p>		<p>HA2 FIRE or EXPLOSION Affecting the Operability of Plant Safety Systems Required to Establish or Maintain Safe Shutdown.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. FIRE or EXPLOSION resulting in VISIBLE DAMAGE to ANY of the following structures containing safety systems or components OR Control Room indication of degraded performance of those safety systems:</p> <table><tr><td>Reactor Containment Building and Shield Building</td><td>Intake Structure</td></tr><tr><td>Control Room</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Reactor Auxiliary Building (RAB)</td><td>Component Cooling Water (CCW)</td></tr><tr><td>Turbine Building if the fire precludes access to the Steam Trestle, Control Room or RAB</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Diesel Oil Storage Tank (DOST)</td><td>Condensate Storage Tank (CST)</td></tr><tr><td>Ultimate Heat Sink (UHS)</td><td>Refueling Water Tank (RWT)</td></tr></table>	Reactor Containment Building and Shield Building	Intake Structure	Control Room	Intake Cooling Water (ICW)	Reactor Auxiliary Building (RAB)	Component Cooling Water (CCW)	Turbine Building if the fire precludes access to the Steam Trestle, Control Room or RAB	Emergency Diesel Generator Building	Diesel Oil Storage Tank (DOST)	Condensate Storage Tank (CST)	Ultimate Heat Sink (UHS)	Refueling Water Tank (RWT)	<p>HU2 FIRE Within the PROTECTED AREA Not Extinguished Within 15 Minutes of Detection or EXPLOSION within the PROTECTED AREA.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <div>Note The Emergency Coordinator should not wait until applicable time has elapsed, but should declare the event as soon as it is determined that the duration has exceeded, or will likely exceed, the applicable time.</div> <p>1. FIRE NOT extinguished within 15 minutes of Control Room fire alarm OR Control Room notification in ANY of the following areas:</p> <table><tr><td>Reactor Containment Building and Shield Building</td><td>Intake Structure</td></tr><tr><td>Control Room</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Reactor Auxiliary Building (RAB)</td><td>Component Cooling Water (CCW)</td></tr><tr><td>Turbine Building if the fire precludes access to the Steam Trestle, Control Room or RAB</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Diesel Oil Storage Tank (DOST)</td><td>Condensate Storage Tank (CST)</td></tr><tr><td>Ultimate Heat Sink (UHS)</td><td>Steam Trestle Area</td></tr><tr><td></td><td>Refueling Water Tank (RWT)</td></tr></table> <p>OR</p> <p>2. EXPLOSION within the PROTECTED AREA.</p>	Reactor Containment Building and Shield Building	Intake Structure	Control Room	Intake Cooling Water (ICW)	Reactor Auxiliary Building (RAB)	Component Cooling Water (CCW)	Turbine Building if the fire precludes access to the Steam Trestle, Control Room or RAB	Emergency Diesel Generator Building	Diesel Oil Storage Tank (DOST)	Condensate Storage Tank (CST)	Ultimate Heat Sink (UHS)	Steam Trestle Area		Refueling Water Tank (RWT)	FIRE / EXPLOSION
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	Refueling Water Tank (RWT)																													
<div>GUIDANCE BOX FOR HU3, HA3</div> <p>Planned controlled activities, such as Containment entry at power, do not meet the intent of HU3 or HA3.</p>	<p>HA3 Access to an ESSENTIAL AREA Is Prohibited Due To Release of Toxic, Corrosive, Asphyxiant or Flammable Gases Which Jeopardize Operation of Systems Required to Maintain Safe Operations or Safely Shutdown the Reactor.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <div>Note If the equipment in the stated area was already inoperable, or out of service, before the event occurred, then this EAL should not be declared as it will have no adverse impact on the ability of the plant to safely operate or safely shutdown beyond that already allowed by Technical Specifications at the time of the event.</div> <p>1. Access to an ESSENTIAL AREA is prohibited due to toxic, corrosive, asphyxiant, or flammable gases which jeopardize operation of systems required to maintain safe operations or safely shutdown the reactor.</p>	<p>HU3 Release of Toxic, Corrosive, Asphyxiant, or Flammable Gases Deemed Detrimental to NORMAL PLANT OPERATIONS.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. Toxic, corrosive, asphyxiant or flammable gases in amounts that have or could adversely affect NORMAL PLANT OPERATIONS.</p> <p>OR</p> <p>2. Report by Local, County or State Officials for evacuation or sheltering of site personnel based on an off-site event.</p>	TOXIC / FLAMMABLE GAS																											
H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY																														

APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY	HG2 – Basis: This EAL addresses unanticipated conditions not addressed explicitly elsewhere but that warrant declaration of an emergency because conditions exist which are believed by the Emergency Coordinator to fall under the emergency classification level for General Emergency.	HS3 – Basis: This EAL addresses unanticipated conditions not addressed explicitly elsewhere but that warrant declaration of an emergency because conditions exist which are believed by the Emergency Coordinator to fall under the emergency classification level description for Site Area Emergency.	HA6 – Basis: This EAL addresses unanticipated conditions not addressed explicitly elsewhere but that warrant declaration of an emergency because conditions exist which are believed by the Emergency Coordinator to fall under the Alert emergency classification level.	HU5 – Basis: This EAL addresses unanticipated conditions not addressed explicitly elsewhere but that warrant declaration of an emergency because conditions exist which are believed by the Emergency Coordinator to fall under the Notification of Unusual Event (NOUE) emergency class.

APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category
<p>HG2 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of General Emergency.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. Other conditions exist which in the judgment of the Emergency Coordinator indicate that 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 ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA PROTECTIVE ACTION GUIDELINE exposure levels off-site for more than the immediate site area.</p> <div> <div>DEFINITION BOX</div> <p>HOSTILE ACTION – An act toward a Nuclear Power Plant (NPP) 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. Other acts that satisfy the overall intent may be included. HOSTILE ACTION should not be construed to include acts of civil disobedience or felonious acts that are not part of a concerted attack on the NPP. Non-terrorism-based EALs should be used to address such activities (i.e., this may include violent acts between individuals in the owner controlled area).</p> <p>IMMINENT – Mitigation actions have been ineffective, additional actions are not expected to be successful, and trended information indicates that the event or condition will occur. Where IMMINENT timeframes are specified, they shall apply.</p> <p>PROTECTIVE ACTION GUIDELINE – Environmental Protection Agency (EPA) Protective Action Guides (PAGs):</p> <ul style="list-style-type: none"> Greater than or equal to 500 mrem Total Effective Dose Equivalent (TEDE) <p align="center">OR</p> <ul style="list-style-type: none"> Greater than or equal to 1000 mrem Committed Dose Equivalent (CDE) <p>[EPIP-08]</p> </div>	<p>HS3 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of Site Area Emergency.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. Other conditions exist which in the judgment of the Emergency Coordinator indicate that 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 PROTECTIVE ACTION GUIDELINE exposure levels beyond the site boundary.</p>	<p>HA6 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of an Alert.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. Other conditions exist which in the judgment of the Emergency Coordinator indicate that events are in progress or have occurred which involve 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 limited to small fractions of the EPA PROTECTIVE ACTION GUIDELINE exposure levels.</p>	<p>HU5 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of a Notification of Unusual Event (NOUE).</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. Other conditions exist which in the judgment of the Emergency Coordinator indicate that 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 off-site response or monitoring are expected unless further degradation of safety systems occurs.</p>	<p align="center">DISCRETIONARY</p> <p align="center">H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY</p>

APPENDIX A
EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

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APPENDIX A
EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

RECOGNITION CATEGORY E
EVENTS RELATED TO ISFSI

APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
E – EVENTS RELATED TO ISFSI			<div>DEFINITION BOX</div> <p>EXPLOSION – A rapid, violent, unconfined combustion, or catastrophic failure of pressurized/energized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems, or components.</p> <p>FIRE – Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute FIRES. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.</p> <p>PROJECTILE – An object directed toward a Nuclear Power Plant (NPP) that could cause concern for its continued operability, reliability, or personnel safety.</p>	<p>E-HU1 – Basis:</p> <p>A Notification of Unusual Event (NOUE) in this IC is categorized on the basis of the occurrence of an event of sufficient magnitude that a loaded cask CONFINEMENT BOUNDARY is damaged or violated. This includes classification based on a loaded fuel storage cask CONFINEMENT BOUNDARY loss leading to the degradation of the fuel during storage or posing an operational safety problem with respect to its removal from storage as indicated by elevated radiation readings from the loaded fuel storage cask.</p> <p>The results of the ISFSI Safety Analysis Report (SAR) per NUREG 1530 or SAR referenced in the cask's Certificate of Compliance and the related NRC Safety Evaluation Report identify natural phenomena events and accident conditions that could potentially effect the CONFINEMENT BOUNDARY. This EAL addresses a dropped cask, a tipped over cask, EXPLOSION, PROJECTILE damage, FIRE damage or natural phenomena affecting a cask (e.g., seismic event, tornado, etc.).</p>

APPENDIX A **EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE**

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category
<div> <div>DEFINITION BOX</div> <div> <p>CONFINEMENT BOUNDARY – The barrier(s) between areas containing radioactive substances and the environment.</p> </div> </div>			<p>E-HU1 Damage to a loaded cask CONFINEMENT BOUNDARY.</p> <p>Operating Mode Applicability: Not applicable</p> <p>EAL Values:</p> <p>1. Damage to a loaded cask CONFINEMENT BOUNDARY.</p>	<div>ISFSI</div> <div>E – EVENTS RELATED TO ISFSI</div>

APPENDIX A EMERGENCY CLASSIFICATION HOT CONDITIONS TABLE

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APPENDIX B EMERGENCY CLASSIFICATION FISSION PRODUCT BARRIER CHART

Evaluate each barrier for Loss or Potential Loss and circle the applicable condition					
FISSION PRODUCT BARRIER DEGRADATION TABLE (APPLICABILITY: Modes 1, 2, 3, & 4 ONLY)					
FUEL CLAD BARRIER		REACTOR COOLANT SYSTEM BARRIER		PRIMARY CONTAINMENT BARRIER	
LOSS	POTENTIAL LOSS	LOSS	POTENTIAL LOSS	LOSS	POTENTIAL LOSS
1. Safety Function Status		1. Safety Function Status		1. Safety Function Status	
1. Core Heat Removal Safety function NOT met AND entry into procedure 1/2 EOP-15	1. RCS Heat Removal Safety function NOT met AND entry into procedure 1/2 EOP-15	Not Applicable	1. RCS Pressure Control Safety function NOT met AND entry into procedure 1/2 EOP-15	Not Applicable	1. Containment Temperature and Pressure Safety function NOT met AND entry into procedure 1/2 EOP-15
GUIDANCE BOX FOR SAFETY FUNCTION STATUS IN ALL THREE BARRIERS		GUIDANCE BOX FOR SAFETY FUNCTION STATUS IN ALL THREE BARRIERS		GUIDANCE BOX FOR SAFETY FUNCTION STATUS IN ALL THREE BARRIERS	
If directed to perform any step in 1/2 EOP-15, this entry into 1/2 EOP-15 has been met.		OR		If safety function cannot be restored within 15 minutes, then that safety function is NOT met for purposes of classification.	
OR		OR		OR	
2. Primary Coolant Activity Level		2. RCS Leak Rate		2. Containment Pressure	
1. Contaminant Activity greater than 300 uCi/gm Dose Equivalent I-131 (see determined by procedure CY-SL-108-0004, Guidelines for Collecting Post Accident Samples)	Not Applicable	1. RCS leak rate greater than available makeup capacity as indicated by a loss of RCS minimum subcooling	1. RCS leak rate indicated greater than 50 gpm with Leakdown Isolated	1. A containment pressure rise followed by a rapid unexplained drop in containment pressure.	1. Containment pressure greater than 44 PSIG and rising
GUIDANCE BOX		GUIDANCE BOX		GUIDANCE BOX	
See also SL4, Fuel Clad Degradation.		MINIMUM SUBCOOLING Determination is made using Figure 1A / 1B in 1/2 EOP-92.		2. Containment pressure OR ramp level response NOT consistent with LOCA conditions	
OR		OR		OR	
3. Core Exit Thermocouple Readings		3. Not Applicable		3. Core Exit Thermocouple Readings	
1. Core Exit Thermocouples reading greater than 1200°F	1. Core Exit Thermocouples reading greater than 700°F	Not applicable		1. Core Exit Thermocouples reading greater than 1200°F	AND
GUIDANCE BOX		Not applicable		GUIDANCE BOX	
At least two (2) Core Exit Thermocouples must exceed the threshold.		Not applicable		At least two (2) Core Exit Thermocouples must exceed the threshold.	
OR		OR		OR	
4. Reactor Vessel Water Level		4. SG Tube Rupture		4. SG Secondary Side Release with P-4c-2 Leakage	
1. RVLMG indicates Sensors 4 through 8 NOT covered	1. RVLMG indicates Sensors 4 through 8 NOT covered	1. RUPTURED SG results in a Safety Injection Activation Signal (SIAS)	Not Applicable	1. RUPTURED SG is also FAULTED outside of containment	Not Applicable
GUIDANCE BOX		Not Applicable		GUIDANCE BOX	
Sensors 4 through 8 NOT covered means sensors 4 through 8 inclusive (all).		Not Applicable		2. Primary-to-Secondary leakage greater than 10 gpm	
Not Applicable		Not Applicable		AND	
OR		OR		OR	
5. Not Applicable		5. Not Applicable		5. CHNT Insulation Failure or Removal	
Not Applicable		Not Applicable		1. Failure of all valves in ANY one line to close	AND
OR		OR		OR	
6. Containment Radiation Monitoring		6. Containment Radiation Monitoring		6. Containment Radiation Monitoring	
1. CRRM reading greater than 1.4 E+02 R/hr	Not Applicable	1. ANY CR monitor reading greater than 1.5 E+03 mR/hr	Not Applicable	1. ANY CR monitor reading greater than 1.5 E+03 mR/hr	Not Applicable
OR		OR		OR	
7. Emergency Coordinator Judgment		7. Emergency Coordinator Judgment		7. Emergency Coordinator Judgment	
1. ANY condition in the opinion of the Emergency Coordinator that indicates Loss of the Fuel Clad Barrier	1. ANY condition in the opinion of the Emergency Coordinator that indicates Potential Loss of the Fuel Clad Barrier	1. ANY condition in the opinion of the Emergency Coordinator that indicates Loss of the RCS Barrier	1. ANY condition in the opinion of the Emergency Coordinator that indicates Potential Loss of the RCS Barrier	1. ANY condition in the opinion of the Emergency Coordinator that indicates Loss of the Containment Barrier	1. ANY condition in the opinion of the Emergency Coordinator that indicates Potential Loss of the Containment Barrier
Determine Emergency Classification based on Barrier Status					
ANY Loss or ANY Potential Loss of EITHER Fuel Clad OR RCS.				ANY Loss or ANY Potential Loss of Containment	
ALERT: FA1				UNUSUAL EVENT: FU1	
Loss or Potential Loss of ANY Two Barriers.					
SITE AREA EMERGENCY: F81					
Loss of ANY Two Barriers AND Loss or Potential Loss of the Third Barrier					
GENERAL EMERGENCY: F91					

APPENDIX B EMERGENCY CLASSIFICATION FISSION PRODUCT BARRIER CHART

FISSION PRODUCT BARRIER DEGRADATION TABLE (APPLICABILITY: Modes 1, 2, 3, & 4 ONLY)		
BASIS		
FUEL CLAD BARRIER	REACTOR COOLANT SYSTEM BARRIER	PRIMARY CONTAINMENT BARRIER
<p>The Fuel Clad Barrier is the alloy or stainless steel tubes that contain the fuel pellets.</p> <p>4. Safety Function Status</p> <p>Loss threshold - Core Heat Removal Safety Function not met indicates significant superheating and core uncover and is considered to indicate loss of the Fuel Clad Barrier.</p> <p>Potential Loss threshold - RCS Heat Removal Safety Function not met indicates the ultimate heat sink function is under extreme challenge.</p> <p>7. Primary Containment Activity Level</p> <p>The value is 300 Ci/gm HCl equivalent. Assessment by the EAL Task Force indicates that this amount of iodine activity is well above that expected for iodine spikes and corresponds to less than 5% fuel cladding damage. This amount of radioactivity indicates significant cladding damage and thus the Fuel Clad Barrier is considered lost.</p> <p>There is no Potential Loss threshold associated with this item.</p> <p>3. Core Exit Thermocouple Readings</p> <p>The Loss threshold corresponds to significant superheating of the coolant.</p> <p>The Potential Loss threshold corresponds to loss of subcooling.</p> <p>4. Reactor Vessel Water Level</p> <p>There is no Loss threshold associated with this item.</p> <p>The indication for the Potential Loss threshold represents a level near the top of the active fuel - Reactor Vessel level sensors not covered or THOT and RSP CET difference greater than 20 °F (LOCA, NOT in progress) or greater than 32°F superheated on RSP CET (LOCA in progress) indicates subcooling has been lost and that some cladding damage may occur.</p> <p>5. Not Applicable</p> <p>Not Applicable (Added to keep barrier numbering consistent)</p> <p>6. Containment Radiation Monitoring</p> <p>The reading is a value which indicates the release of reactor coolant, with elevated activity indicative of fuel damage, into the containment calculated assuming the instantaneous release and dispersal of the reactor coolant noble gas and iodine inventory associated with a 5% clad failure into the containment atmosphere.</p> <p>Reactor coolant concentrations of this magnitude are several times larger than the maximum concentrations (including iodine spiking) allowed within technical specifications and are therefore indicative of fuel damage.</p> <p>The value is higher than that specified for RCS barrier Loss threshold #6. Thus, this threshold indicates a loss of both the Fuel Clad barrier and a loss of RCS barrier that appropriately escalates the emergency classification level to a Site Area Emergency.</p> <p>There is no Potential Loss threshold associated with this item.</p> <p>7. Emergency Coordinator Judgment</p> <p>This threshold addresses any other factors that are to be used by the Emergency Coordinator in determining whether the Fuel Clad barrier is lost or potentially lost. In addition, the inability to monitor the barrier should also be incorporated in this threshold as a factor in Emergency Coordinator judgment that the barrier may be considered lost or potentially lost.</p>	<p>5. Not Applicable</p> <p>Not Applicable (Added to keep barrier numbering consistent)</p> <p>6. Containment Radiation Monitoring</p> <p>The reading is a value which indicates the release of reactor coolant to the containment. This reading will be less than that specified for Fuel Clad Barrier threshold #6. Thus, this threshold would be indicative of a RCS leak only. If the radiation monitor reading increased to that specified by Fuel Clad Barrier threshold, fuel damage would also be indicated.</p> <p>There is no Potential Loss threshold associated with this item.</p> <p>7. Emergency Coordinator Judgment</p> <p>This threshold addresses any other factors that are to be used by the Emergency Coordinator in determining whether the RCS barrier is lost or potentially lost. In addition, the inability to monitor the barrier should also be incorporated in this threshold as a factor in Emergency Coordinator judgment that the barrier may be considered lost or potentially lost.</p> <p>PRIMARY CONTAINMENT BARRIER</p> <p>The Containment Barrier includes the containment building and connections up to and including the outermost containment isolation valves. This barrier also includes the main steam, feedwater, and blowdown line extensions outside the containment building up to and including the outermost secondary side isolation valve.</p> <p>1. Safety Function Status</p> <p>There is no Loss threshold associated with this item.</p> <p>Containment Temperature and Pressure Safety function not met indicates an extreme challenge to the safety function derived from appropriate instrument readings and/or sampling results and thus represents a potential loss of containment.</p> <p>Conditions leading to a potential loss of containment barrier result from RCS barrier and/or Fuel Clad barrier loss. Thus, this threshold is primarily a discriminator between Site Area Emergency and General Emergency representing a potential loss of the third barrier.</p> <p>2. Containment Pressure</p> <p>Loss thresholds 1 and 2 - Rapid unexplained loss of pressure (i.e., not attributable to containment spray or condensation effects) following an initial pressure increase from a primary or secondary high energy line break indicates a loss of containment integrity. Containment pressure and sump levels should increase as a result of the mass and energy release into containment from a LOCA. Thus, sump level or pressure not increasing indicates containment bypass and a loss of containment integrity.</p> <p>This indicator relies on operator recognition of an unexpected response for the condition and therefore does not have a specific value associated with it. The unexpected response is important because it is the indicator of a containment bypass condition.</p> <p>Existence of an explosive mixture means a hydrogen and oxygen concentration of at least the lower deflagration limit curve exists.</p> <p>The third Potential Loss threshold represents a potential loss of containment in that the containment heat removal/depressionization system are either lost or performing in a degraded manner, as indicated by containment pressure greater than the setpoint at which the equipment was supposed to have actuated.</p> <p>3. Core Exit Thermocouple Reading</p> <p>There is no Loss threshold associated with this item.</p> <p>The conditions in these thresholds represent an IMMEDIATE core melt sequence which, if not corrected, could lead to vessel failure and an increased potential for containment failure. In conjunction with the Core Cooling and RCS Leakage criteria in the Fuel and RCS barrier columns, this threshold would result in the declaration of a General Emergency - loss of two barriers and the potential loss of a third. If the function restoration procedures are ineffective, there is no "success" path.</p> <p>The function restoration procedures are those emergency operating procedures that address the recovery of the core cooling critical safety functions. The procedure is considered effective if the temperature is lowering or if the vessel water level is rising.</p> <p>Whether or not the procedures will be effective should be apparent within 15 minutes. The Emergency Coordinator should make the declaration as soon as it is determined that the procedures have been, or will be, ineffective.</p> <p>Primary Containment Barrier Continued in next column</p>	<p>6. SG Secondary Side Release with P-6-S Leakage</p> <p>This Loss threshold recognizes that SG tube leakage can represent a bypass of the containment barrier as well as a loss of the RCS barrier.</p> <p>The two Loss thresholds described could be considered redundant. The inclusion of a threshold that uses Emergency Procedure commonly used terms like "RUPTURED" and "FAULTED" adds to the ease of the classification process and has been included based on this human factor concern.</p> <p>This threshold results in a NOISE for smaller breaks that: (1) do not exceed the normal charging capacity threshold in RCS leak rate barrier Potential Loss threshold, or (2) do not result in ECCS activation in RCS SG tube rupture barrier Loss threshold. For larger breaks, RCS barrier threshold criteria would result in an Alert. For SG tube ruptures which may involve multiple steam generator or UNSOLUBLE secondary side breaks, this threshold would add in conjunction with RCS barrier threshold and would result in a Site Area Emergency. Escalation to General Emergency would be based on "Potential Loss" of the Fuel Clad Barrier.</p> <p>The first Loss threshold addresses the condition in which a RUPTURED steam generator is also FAULTED. This condition represents a bypass of the RCS and containment barriers and is a subset of the second threshold. In conjunction with RCS barrier loss threshold, this would always result in the declaration of a Site Area Emergency.</p> <p>The second Loss threshold addresses SG tube leaks that exceed 10 gpm in conjunction with an UNSOLUBLE release path to the environment from the affected steam generator. The threshold for establishing the UNSOLUBLE secondary side release is intended to be a prolonged release of radioactivity from the RUPTURED steam generator directly to the environment (i.e., SG tube rupture with concurrent loss of off-site power and the RUPTURED steam generator is required for plant shutdown or a slack open relief valve). This could be expected to occur when the main condenser is unavailable to accept the contaminated steam. If the main condenser is available, there may be releases via air ejection, gland seal exchangers, and other similar controlled, and often monitored, pathways.</p> <p>These pathways do not meet the intent of an UNSOLUBLE release path to the environment. These minor releases are assessed using Abnormal Rad Levels / Radiological Effluent ICs.</p> <p>5. CONTAINMENT FAILURE or Bypass</p> <p>This threshold addresses incomplete containment isolation that allows direct release to the environment. It represents a loss of the containment barrier.</p> <p>The use of the modifier "direct" in defining the release path discriminates against release paths through interfacing liquid systems. The existence of an in-line charcoal filter does not make a release path indirect since the filter is not effective at removing fission product noble gases. Typical filters have an efficiency of 95-99% removal of iodine. Given the magnitude of the core inventory of iodine, significant releases could still occur. In addition, since the fission product release would be driven by boiling in the reactor vessel, the high humidity in the release stream can be expected to render the filters ineffective in a short period.</p> <p>There is no Potential Loss threshold associated with this item.</p> <p>6. Containment Radiation Monitoring</p> <p>There is no Loss threshold associated with this item.</p> <p>The reading is a value which indicates significant fuel damage well in excess of the threshold associated with both loss of Fuel Clad and loss of RCS Barriers. A major release of radioactivity requiring off-site protective actions from core damage is not possible unless a major failure of fuel cladding allows radioactive material to be released from the core into the reactor coolant.</p> <p>Regardless of whether containment is challenged, this amount of activity in containment, if released, could have such severe consequences that it is prudent to treat this as a potential loss of containment, such that a General Emergency declaration is warranted.</p> <p>7. Emergency Coordinator Judgment</p> <p>This threshold addresses any other factors that are to be used by the Emergency Coordinator in determining whether the Containment barrier is lost or potentially lost. In addition, the inability to monitor the barrier should also be incorporated in this threshold as a factor in Emergency Coordinator judgment that the barrier may be considered lost or potentially lost.</p> <p>The Containment Barrier should not be declared lost or potentially lost based on exceeding Technical Specification action statement criteria, unless there is an event in progress requiring mitigation by the Containment barrier. When no event is in progress (Loss or Potential Loss of either Fuel Clad and/or RCS) the Containment Barrier status is addressed by Technical Specifications.</p> <p>DEFINITION BOX (CONTINUED)</p> <p>RCS LEAK RATE - Composite of IDENTIFIED and UNIDENTIFIED leakage as defined by Technical Specifications.</p> <p>UNIDENTIFIED LEAKAGE - Leakage which is not IDENTIFIED LEAKAGE or CONTROLLED LEAKAGE.</p> <p>CONTROLLED LEAKAGE - See water flow supplied from the reactor coolant pump sump.</p> <p>IDENTIFIED LEAKAGE:</p> <ul style="list-style-type: none"> a. Leakage (except CONTROLLED LEAKAGE) into closed systems, such as main and/or waste isolation tanks that are contained, and conducted to a means of collection tank, or b. Leakage into the containment atmosphere from sources that are both readily-located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or c. Reactor Coolant System leakage through a steam generator to the secondary system (Primary-to-secondary leakage).
<p>REACTOR COOLANT SYSTEM BARRIER</p> <p>The RCS Barrier includes the RCS primary side and its connections up to and including the pressurizer safety and relief valves, and other connections up to and including the primary isolation valves.</p> <p>1. Safety Function Status</p> <p>There is no Loss threshold associated with this item.</p> <p>Potential Loss threshold 1 - RCS Pressure and Control Safety Function not met indicates an extreme challenge to the safety function derived from appropriate instrument readings.</p> <p>Potential Loss threshold 2 - Heat Removal Safety Function not met indicates the ultimate heat sink function is under extreme challenge.</p> <p>2. RCS Leak Rate</p> <p>The Loss threshold addresses conditions where leakage from the RCS is greater than available inventory control capacity such that a loss of subcooling has occurred. The loss of subcooling is the fundamental indication that the inventory control systems are inadequate in maintaining RCS pressure and inventory against the mass loss through the leak.</p> <p>The Potential Loss threshold is based on the inability to maintain normal liquid inventory within the Reactor Coolant System (RCS) by normal operation of the Charging System which is considered to be the flow rate equivalent to one charging pump discharging to the charging header. Isolating letdown is a standard abnormal operating procedure action and may prevent unnecessary classifications when a non-RCS leakage path such as a Charging/Letdown leak exists. The intent of this condition is met if attempts to isolate Letdown are NOT successful. Additional charging pumps being required is indicative of a substantial RCS leak.</p> <p>3. Not Applicable</p> <p>Not Applicable (Added to keep barrier numbering consistent)</p> <p>4. SG Tube Rupture</p> <p>This threshold addresses the full spectrum of Steam Generator (SG) tube rupture events in conjunction with Containment Barrier Loss thresholds. It addresses RUPTURED SG(s) for which the leakage is large enough to cause activation of ECCS (SI, JUI-1000 pps and UG 1738 pps). This is consistent to the RCS leak rate barrier Potential Loss threshold 2. By itself, this threshold will result in the declaration of an Alert. However, if the SG is also FAULTED (i.e., two barriers failed), the declaration escalates to a Site Area Emergency per Containment barrier Loss thresholds.</p> <p>There is no Potential Loss threshold associated with this item.</p> <p>Reactor Coolant System Barrier Continued in next column</p>	<p>DEFINITION BOX</p> <p>FAULTED - In a steam generator, the existence of secondary side leakage that results in an uncontrolled drop in steam generator pressure or the steam generator being completely depressurized.</p> <p>FULL TRAIN OF DEPRESSURIZATION EQUIPMENT</p> <p>[30-BOP-62] -</p> <ul style="list-style-type: none"> Two Containment Sump Headers - Flow in each header is at least 2850 [2700] gpm. Four Containment Coolers - Running Two Containment Coolers - Running One Containment Sump Header - Flow in the header is at least 2850 [2700] gpm. <p>IMMEDIATE - Mitigation actions have been ineffective, additional actions are not expected to be successful, and trending information indicates that the event or condition will occur. When IMMEDIATE conditions are specified, they shall apply.</p> <p>PROMPTLY ISOLATED - A steam release to the environment, from a leaking or ruptured SG, that is stopped at the completion of the SG isolation procedure. Containment Barrier status has been PROMPTLY ISOLATED.</p> <p>RUPTURED - In a steam generator, evidence of primary-to-secondary leakage of a magnitude sufficient to require or cause a reactor trip and/or isolation.</p> <p>UNSOLUBLE - A breach or leak that cannot be PROMPTLY ISOLATED.</p> <p>DEFINITION BOX Continued in next column</p>	<p>DEFINITION BOX (CONTINUED)</p> <p>RCS LEAK RATE - Composite of IDENTIFIED and UNIDENTIFIED leakage as defined by Technical Specifications.</p> <p>UNIDENTIFIED LEAKAGE - Leakage which is not IDENTIFIED LEAKAGE or CONTROLLED LEAKAGE.</p> <p>CONTROLLED LEAKAGE - See water flow supplied from the reactor coolant pump sump.</p> <p>IDENTIFIED LEAKAGE:</p> <ul style="list-style-type: none"> a. Leakage (except CONTROLLED LEAKAGE) into closed systems, such as main and/or waste isolation tanks that are contained, and conducted to a means of collection tank, or b. Leakage into the containment atmosphere from sources that are both readily-located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or c. Reactor Coolant System leakage through a steam generator to the secondary system (Primary-to-secondary leakage).

APPENDIX C **EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE**

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COLD CONDITIONS TABLE **(RCS ≤ 200°F)**

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COLD CONDITIONS TABLE (RCS ≤ 200°F)

APPENDIX C
EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

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APPENDIX C **EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE**

R - ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT	RADIOLOGICAL EFFLUENT	General Emergency	Site Area Emergency	Alert	Unusual Event	H - HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY	General Emergency	Site Area Emergency	Alert	Unusual Event	INITIATING CONDITIONS MATRIX
		RG1	RS1	RA1	RU1		HG1	HS4	HA4	HU4	
C - COLD SHUTDOWN / REFUELING SYSTEM MALFUNCTIONS	ABNORMAL RAD LEVELS	Off-site Dose Resulting from an Actual or IMMINENT Release of Gaseous Radioactivity Greater Than 1000 mrem TEDE or 5000 mrem Thyroid CDE for the Actual or Projected Duration of the Release Using Actual Meteorology. Pg. 6	Off-site Dose Resulting from an Actual or IMMINENT Release of Gaseous Radioactivity Greater Than 100 mrem TEDE or 500 mrem Thyroid CDE for the Actual or Projected Duration of the Release. Pg. 6	Any Release of Gaseous or Liquid Radioactivity to the Environment Greater Than 200 Times the ODCM for 15 Minutes or Longer. Pg. 6	Any Release of Gaseous or Liquid Radioactivity to the Environment Greater Than 2 Times the ODCM for 60 Minutes or Longer. Pg. 6	H - HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY	HOSTILE ACTION Resulting in Loss of Physical Control of the Facility. Pg. 20	HOSTILE ACTION within the PROTECTED AREA Pg. 20	HOSTILE ACTION within the OWNER CONTROLLED AREA or Airborne Attack Threat Pg. 20	Confirmed SECURITY CONDITION or Threat Which Indicates a Potential Degradation in the Level of Safety of the Plant. Pg. 20	
				RA2 Damage to Irradiated Fuel or Loss of Water Level that Has Resulted or Will Result in the Uncovering of Irradiated Fuel Outside the Reactor Vessel. Pg. 8	RU2 UNPLANNED Rise in Plant Radiation Levels. Pg. 8			HS2 Control Room Evacuation Has Been Initiated and Plant Control Cannot be Established. Pg. 20	HA5 Control Room Evacuation has been Initiated. Pg. 20		
				RA3 Rise in Radiation Levels Within the Facility That Impedes Operation of Systems Required to Maintain Safe Plant Safety Functions. Pg. 8					HA1 Natural or Destructive Phenomena Affecting ESSENTIAL AREAS. Pg. 20-22	HU1 Natural or Destructive Phenomena Affecting the PROTECTED AREA. Pg. 20-22	
									HA2 FIRE or EXPLOSION Affecting the Operability of Plant Safety Systems Required to Establish or Maintain Safe Shutdown. Pg. 24	HU2 FIRE Within the PROTECTED AREA Not Extinguished Within 15 Minutes of Detection OR EXPLOSION within the PROTECTED AREA. Pg. 24	
	RCS LEAKAGE / INVENTORY	CG1 Loss of RCS Inventory Affecting Fuel Clad Integrity with Containment Challenged. Pg. 12	CS1 Loss of RCS Inventory Affecting Core Decay Heat Removal Capability. Pg. 12	CA1 Loss of RCS Inventory. Pg. 12	CU1 RCS Leakage. Pg. 12				HA3 Access to an ESSENTIAL AREA is Prohibited Due To Release of Toxic, Corrosive, Asphyxiant or Flammable Gases Which Jeopardize Operation of Systems Required to Maintain Safe Operations or Safely Shutdown the Reactor. Pg. 24	HU3 Release of Toxic, Corrosive, Asphyxiant, or Flammable Gases Deemed Detrimental to NORMAL PLANT OPERATIONS. Pg. 24	
				CA3 Loss of All Off-site and All On-site AC Power to Emergency Busses For 15 minutes Or Longer. Pg. 12	CU2 UNPLANNED Loss of RCS Inventory. Pg. 12						
					CU3 AC Power Capability To Emergency Busses Reduced to a Single Power Source for 15 Minutes or longer such that Any Additional Single Failure Would Result in Station Blackout. Pg. 12						
				CA4 Inability to Maintain Plant in Cold Shutdown. Pg. 14	CU4 UNPLANNED Loss of Decay Heat Removal Capability with Irradiated Fuel in the Reactor Vessel Pg. 14		HG2 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of General Emergency. Pg. 26	HS3 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of Site Area Emergency. Pg. 26	HA6 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of an Alert. Pg. 26	HU5 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of a Notification of Unusual Event (NOUE). Pg. 26	
					CU7 Loss of Required DC Power for 15 Minutes Or Longer. Pg. 14						
					CU8 Inadvertent Criticality. Pg. 14						
	COMBIL				CU6 Loss of All On-site or Off-site Communications Capabilities. Pg. 16					E-HU1 Damage to a loaded cask confinement BOUNDARY. Pg. 30	

APPENDIX C
EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

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RECOGNITION CATEGORY R
ABNORMAL RAD LEVELS / RADIOLOGICAL EFFLUENT

APPENDIX C EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
R - ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT	<p>RG1 - Basis:</p> <p>This IC addresses radioactivity releases that result in doses at or beyond the site boundary that exceed the Environmental Protection Agency Protective Action Guides (PAGs). Public protective actions will be necessary. Releases of this magnitude are associated with the failure of plant systems needed for the protection of the public and likely involve fuel damage.</p> <p>While these failures are addressed by other ICs, this IC provides appropriate diversity and addresses events which may not be able to be classified on the basis of plant status alone. It is important to note that for the more severe accidents the release may be unmonitored or there may be large uncertainties associated with the source term and/or meteorology.</p> <p>The EPA PAGs are expressed in terms of the sum of the effective dose equivalent (EDE) and the committed effective dose equivalent (CEDE), or as the thyroid committed dose equivalent (CDE). For the purpose of these IC/EALs, the dose quantity total effective dose equivalent (TEDE), as defined in 10 CFR 20, is used in lieu of "sum of EDE and CEDE".</p> <p>The TEDE dose is set at the EPA PAG, while the 5000 mrem thyroid CDE was established in consideration of the 1.5 ratio of the EPA PAG for TEDE and thyroid CDE.</p> <p>The monitor list in EAL #1 includes monitors on all potential release pathways.</p> <p>Since dose assessment is based on actual meteorology, whereas the monitor reading EAL is not, the results from these assessments may indicate that the classification is not warranted, or may indicate that a higher classification is warranted. For this reason, emergency implementing procedures should call for the timely performance of dose assessments using actual meteorology and release information. If the results of these dose assessments are available when the classification is made (e.g., initiated at a lower classification level), the dose assessment results override the monitor reading EAL.</p>	<p>RS1 - Basis:</p> <p>This IC addresses radioactivity releases that result in doses at or beyond the site boundary that exceed 10% of the Environmental Protection Agency Protective Action Guides (PAGs). Releases of this magnitude are associated with the failure of plant systems needed for the protection of the public.</p> <p>While these failures are addressed by other ICs, this IC provides appropriate diversity and addresses events which may not be able to be classified on the basis of plant status alone. It is important to note that for the more severe accidents the release may be unmonitored or there may be large uncertainties associated with the source term and/or meteorology.</p> <p>The EPA PAGs are expressed in terms of the sum of the effective dose equivalent (EDE) and the committed effective dose equivalent (CEDE), or as the thyroid committed dose equivalent (CDE). For the purpose of these IC/EALs, the dose quantity total effective dose equivalent (TEDE), as defined in 10 CFR 20, is used in lieu of "sum of EDE and CEDE".</p> <p>The TEDE dose is set at 10% of the EPA PAG, while the 500 mrem thyroid CDE was established in consideration of the 1.5 ratio of the EPA PAG for TEDE and thyroid CDE.</p> <p>The monitor list in EAL #1 includes monitors on all potential release pathways.</p> <p>Since dose assessment is based on actual meteorology, whereas the monitor reading EAL is not, the results from these assessments may indicate that the classification is not warranted, or may indicate that a higher classification is warranted. For this reason, emergency implementing procedures call for the timely performance of dose assessments using actual meteorology and release information. If the results of these dose assessments are available when the classification is made (e.g., initiated at a lower classification level), the dose assessment results override the monitor reading EAL.</p>	<p>RA1 - Basis:</p> <p>The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p> <p>The fundamental basis of this IC is NOT a dose or dose rate, but rather the degradation in the level of safety of the plant implied by the uncontrolled release. This IC addresses an actual or substantial potential degradation in the level of safety of the plant as indicated by a radiological release that exceeds regulatory commitments for an extended period of time.</p> <p>Nuclear power plants incorporate features intended to control the release of radioactive effluents to the environment. Further, there are administrative controls. These controls are located in the Off-site Dose Calculation Manual (ODCM). The occurrence of extended, uncontrolled radioactive releases to the environment is indicative of a degradation in the features and/or controls.</p> <p>The ODCM multiples are specified in RU1 and RA1 only to distinguish between non-emergency conditions, and from each other. While these multiples obviously correspond to an off-site dose or dose rate, the emphasis in classifying these events is the degradation in the level of safety of the plant, not the magnitude of the associated dose or dose rate.</p> <p>Releases should not be prorated or averaged. For example, a release exceeding 600x ODCM for 5 minutes does not meet the threshold.</p> <p>This EAL includes any release for which a radioactivity discharge permit was not prepared, or a release that exceeds the conditions (e.g., minimum dilution flow, maximum discharge flow, alarm setpoints, etc.) on the applicable permit.</p> <p>EAL #1 is intended for sites that have established effluent monitoring on non-routine release pathways for which a discharge permit would not normally be prepared. The threshold values for this EAL are to be 200 times the ODCM limit or 100 times the threshold values used in RU1. This is true except for the thresholds for the Steam Generator Blowdown Monitors. On both Unit 1 and Unit 2, the calculated values exceeded the range of the monitors. Therefore, the values used for the Steam Generator Blowdown Monitors are 65% of full scale. This lesser value is still indicative of a loss of control of radioactive material well in excess of that constituting an Unusual Event.</p> <p>EAL #2 addresses radioactivity releases, that for whatever reason, cause effluent radiation monitor readings to exceed the threshold identified in the IC established by the radioactivity discharge permit. This value may be associated with a planned batch release, or a continuous release path.</p> <p>EAL #3 addresses uncontrolled releases that are detected by sample analyses, particularly on unmonitored pathways, e.g., spills of radioactive liquids into storm drains, heat exchanger leakage in river water systems, etc.</p>	<p>RU1 - Basis:</p> <p>The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p> <p>The fundamental basis of this IC is NOT a dose or dose rate, but rather the degradation in the level of safety of the plant implied by the uncontrolled release. This IC addresses a potential decrease in the level of safety of the plant as indicated by a radiological release that exceeds regulatory commitments for an extended period of time.</p> <p>Nuclear power plants incorporate features intended to control the release of radioactive effluents to the environment. Further, there are administrative controls established to prevent unintentional releases, or control and monitor intentional releases. These controls are located in the Off-site Dose Calculation Manual (ODCM). The occurrence of extended, uncontrolled radioactive releases to the environment is indicative of a degradation of these features and/or controls.</p> <p>The ODCM multiples are specified in RU1 and RA1 only to distinguish between non-emergency conditions, and from each other. While these multiples obviously correspond to an off-site dose or dose rate, the emphasis in classifying these events is the degradation in the level of safety of the plant, not the magnitude of the associated dose or dose rate.</p> <p>Releases should not be prorated or averaged. For example, a release exceeding 4x ODCM for 30 minutes does not meet the threshold.</p> <p>This EAL includes any release for which a radioactivity discharge permit was not prepared, or a release that exceeds the conditions (e.g., minimum dilution flow, maximum discharge flow, alarm setpoints, etc.) on the applicable permit.</p> <p>EAL #1 addresses radioactivity releases, that for whatever reason, cause effluent radiation monitor readings to exceed the threshold identified in the IC. 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APPENDIX C EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

General Emergency		Site Area Emergency		Alert		Unusual Event		Recognition Category																																																																																															
RG1 Off-site Dose Resulting from an Actual or IMMINENT Release of Gaseous Radioactivity Greater Than 1000 mrem TEDE or 5000 mrem Thyroid CDE for the Actual or Projected Duration of the Release Using Actual Meteorology.		RS1 Off-site Dose Resulting from an Actual or IMMINENT Release of Gaseous Radioactivity Greater Than 100 mrem TEDE or 500 mrem Thyroid CDE for the Actual or Projected Duration of the Release		RA1 Any Release of Gaseous or Liquid Radioactivity to the Environment Greater Than 200 Times the ODCM for 15 Minutes or Longer.		RU1 Any Release of Gaseous or Liquid Radioactivity to the Environment Greater Than 2 Times the ODCM for 60 Minutes or Longer																																																																																																	
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RS 26-90, RMCS 621	w/ FHB Diverted to Plant Vent via Shield Building Ventilation	9.4 E-03 uCi/cc																																																																																																					
RS 26-12, RMCS 413	Fuel Handling Building (FHB)	4.6 E-02 uCi/cc																																																																																																					
RIM 26-71, RMCS 631	'A' Main Steam Line Monitor	2.0 E+00 mR/hr																																																																																																					
RIM 26-72, RMCS 632	'B' Main Steam Line Monitor	2.0 E+00 mR/hr																																																																																																					
RS-26-5, RMCS 121	'A' S/G Blowdown	2.5 E-04 uCi/ml																																																																																																					
RS-26-6, RMCS 122	'B' S/G Blowdown	2.5 E-04 uCi/ml																																																																																																					
<p>OR</p>		<p>OR</p>		<p>OR</p>		<p>OR</p>																																																																																																	
2. Dose assessment using actual meteorology indicates doses greater than 1000 mrem TEDE OR 5000 mrem thyroid CDE at or beyond the site boundary		2. Dose assessment using actual meteorology indicates doses greater than 100 mrem TEDE OR 500 mrem thyroid CDE at or beyond the site boundary		2. VALID reading on ANY effluent monitor that exceeds 200 times the alarm setpoint established for a current radioactivity discharge permit for 15 minutes or longer		2. VALID reading on ANY effluent monitor reading greater than 2 times the alarm setpoint established by a current radioactivity discharge permit for 60 minutes or longer																																																																																																	
<p>OR</p>		<p>OR</p>		<p>OR</p>		<p>OR</p>																																																																																																	
3. Field survey results indicate closed window dose rates greater than 1000 mR/hr expected to continue for more than one hour OR analyses of field survey samples indicate thyroid CDE greater than 5000 mrem for one hour of inhalation, at or beyond site boundary.		3. Field survey results indicate closed window dose rates greater than 100 mR/hr expected to continue for more than one hour OR analyses of field survey samples indicate thyroid CDE greater than 500 mrem for one hour of inhalation, at or beyond the site boundary		3. Confirmed sample analyses for gaseous or liquid releases indicates concentrations OR release rates greater than 200 times ODCM Limits for 15 minutes or longer.		3. Confirmed sample analyses for gaseous or liquid releases indicates concentrations OR release rates greater than 2 times ODCM Limits for 60 minutes or longer																																																																																																	
<p>DEFINITION BOX</p> <p>IMMINENT – Mitigation actions have been ineffective, additional actions are not expected to be successful, and trended information indicates that the event or condition will occur. Where IMMINENT timeframes are specified, they shall apply.</p> <p>VALID – An indication, report, or condition, is considered to be VALID when it is verified by (1) an instrument channel check, (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment.</p>		<p>GUIDANCE FOR RG1, RS1, RA1, RU1</p> <ol style="list-style-type: none">Where two channels are listed, the channel ranges overlap, the monitor reading is valid on either channel.For Unit 1 Eberline channels – to obtain current data, ENTER the command [DATA] channel ID [ENTER]Use Normal OPS threshold unless Plant Vent flow has been:<ul style="list-style-type: none">Lowered due to successful SIAS ORUnit 2 only – Raised to due to successful diversion on FHB ventilation to the Plant Vent																																																																																																					

RADIOLOGICAL EFFLUENT
R – ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT

APPENDIX C **EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE**

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
R – ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT			<p>RA2 – Basis:</p> <p>This IC addresses rises in radiation dose rates within plant buildings, and may be a precursor to a radioactivity release to the environment. These events represent a loss of control over radioactive material and represent an actual or substantial potential degradation in the level of safety of the plant.</p> <p>These events escalate from RU2 in that fuel activity has been released, or is anticipated due to fuel heatup. This IC applies to spent fuel requiring water coverage and is not intended to address spent fuel which is licensed for dry storage.</p> <p>EAL #1 indications include water level indication and personnel reports.</p> <p>EAL #2 addresses radiation monitor indications of fuel uncover and/or fuel damage. Application of this EAL requires understanding of the actual radiological conditions present in the vicinity of the monitor.</p> <p>Raised ventilation monitor readings may be indication of a radioactivity release from the fuel, confirming that damage has occurred. Increased background at the ventilation monitor due to water level decrease may mask increased ventilation exhaust airborne activity and needs to be considered.</p> <p>While a radiation monitor could detect an increase in dose rate due to a drop in the water level, it might not be a reliable indication of whether or not the fuel is covered.</p> <p>For example, an Area Radiation Monitor (ARM) reading may increase due to planned evolutions such as head lift, or even a fuel assembly being raised in the manipulator mast. Also, a monitor could in fact be properly responding to a known event involving transfer or relocation of a source, stored in or near the fuel pool or responding to a planned evolution such as removal of the reactor head. Generally, increased radiation monitor indications will need to be combined with another indicator (or personnel report) of water loss.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on IC RS1 or RG1.</p> <p>RA3 – Basis:</p> <p>This IC addresses raised radiation levels that impact continued operation in areas requiring continuous occupancy in order to maintain safe operation or to perform a safe shutdown. It is this impaired ability to operate the plant that results in the actual or potential substantial degradation of the level of safety of the plant. The cause and/or magnitude of the rise in radiation levels is not a concern of this IC. The Emergency Coordinator must consider the source or cause of the raised radiation levels and determine if any other IC may be involved.</p> <p>Areas requiring continuous occupancy include the Control Room and Central Alarm Station (CAS).</p>	<p>RU2 – Basis:</p> <p>This IC addresses elevated radiation levels as a result of water level lowering but above the Reactor Pressure Vessel flange or events that have resulted, or may result, in UNPLANNED rise in radiation dose rates within plant buildings. These radiation levels represent a loss of control over radioactive material and may represent a potential degradation in the level of safety of the plant.</p> <p>The refueling pathway is a combination of cavities, tubes, canals and pools. While a radiation monitor could detect an increase a rise in dose rate due to a drop in the water level, it might not be a reliable indication of whether or not the fuel is covered. For refueling events where the water level drops below the Reactor Pressure Vessel flange classification would be via CU2. This event escalates to an Alert per IC RA2 if irradiated fuel outside the reactor vessel is uncovered. For events involving irradiated fuel in the reactor vessel, escalation would be via the Fission Product Barrier Table for events in operating Modes 1-4.</p> <p>Application of this EAL requires understanding of the actual radiological conditions present in the vicinity of the monitor.</p> <p>EAL #2 addresses elevated in-plant radiation levels that represent a loss of control of radioactive material resulting in a potential degradation in the level of safety of the plant. This EAL excludes radiation level increases that result from planned activities such as use of radiographic sources and movement of radioactive waste materials. A specific list of Area Radiation Monitors (ARMs) is not required as it would restrict the applicability of the Threshold. The intent is to identify loss of control of radioactive material in any monitored area.</p> <p>For example, a refueling bridge ARM reading may increase due to planned evolutions such as head lift, or even a fuel assembly being raised in the manipulator mast. Also, a monitor could in fact be properly responding to a known event involving transfer or relocation of a source, stored in or near the fuel pool or responding to a planned evolution such as removal of the reactor head. Generally, increased radiation monitor indications will need to be combined with another indicator (or personnel report) of water loss.</p>

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General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category																																																																																																																																																																					
<div>DEFINITION BOX</div> <p>UNPLANNED – A parameter change or an event that is not the result of an intended evolution and requires corrective or mitigative actions.</p> <p>VALID – An indication, report, or condition, is considered to be VALID when it is verified by (1) an instrument channel check, (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment.</p>	<div>GUIDANCE FOR RA2</div> <p>1. For Unit 1 Eberline channels – to obtain current data: ENTER the command [DATA] channel ID [ENTER]</p>	<p>RA2 Damage to Irradiated Fuel or Loss of Water Level that Has Resulted or Will Result in the Uncovering of Irradiated Fuel Outside the Reactor Vessel.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. A water level drop in the reactor refueling cavity, spent fuel pool OR fuel transfer canal that will result in irradiated fuel becoming uncovered.</p> <p>OR</p> <p>2. A VALID alarm on ANY of the following due to damage to irradiated fuel OR loss of water level:</p> <table><tr><th colspan="4">UNIT 1 ARM Channels</th></tr><tr><th>Detector Tag No.</th><th>Channel No.</th><th>Description</th><th>Alarm</th></tr><tr><td>RE26-3-1</td><td>#3</td><td>Containment CIS Monitor</td><td>ANY</td></tr><tr><td>RE26-4-1</td><td>#4</td><td>Containment CIS Monitor</td><td>ANY</td></tr><tr><td>RE26-5-1</td><td>#5</td><td>Containment CIS Monitor</td><td>ANY</td></tr><tr><td>RE26-6-1</td><td>#6</td><td>Containment CIS Monitor</td><td>ANY</td></tr><tr><td>RE26-7-1</td><td>#7</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RE26-8-1</td><td>#8</td><td>Refueling Canal</td><td>ANY</td></tr><tr><td>RE26-36-1</td><td>#36</td><td>Operating Deck</td><td>ANY</td></tr></table> <table><tr><th colspan="4">UNIT 1 PRM Channel</th></tr><tr><td>RSC 28-4</td><td>Eberline 04-05</td><td>Fuel Handling Building Exhaust Vent</td><td>HIGH</td></tr></table> <table><tr><th colspan="4">UNIT 2 ARM Channels</th></tr><tr><th>Detector Tag No.</th><th>RMCS Channel</th><th>Description</th><th>Alarm</th></tr><tr><td>RIM-26-2</td><td>GAG-002</td><td>Operating Deck</td><td>ANY</td></tr><tr><td>RIM-26-3</td><td>GAG-003</td><td>Containment CIS Monitor A</td><td>ANY</td></tr><tr><td>RIM-26-4</td><td>GAG-004</td><td>Containment CIS Monitor B</td><td>ANY</td></tr><tr><td>RIM-26-5</td><td>GAG-005</td><td>Containment CIS Monitor C</td><td>ANY</td></tr><tr><td>RIM-26-6</td><td>GAG-006</td><td>Containment CIS Monitor D</td><td>ANY</td></tr><tr><td>RIM-26-7</td><td>GAG-007</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-8</td><td>GAG-008</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-9</td><td>GAG-009</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-10</td><td>GAG-010</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-11</td><td>GAG-011</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-12</td><td>GAG-012</td><td>Spent Fuel Pool</td><td>ANY</td></tr><tr><td>RIM-26-33</td><td>GAG-033</td><td>Refueling Canal</td><td>ANY</td></tr></table> <table><tr><th colspan="4">UNIT 2 PRM Channel</th></tr><tr><td>RS-26-12</td><td>EAG-413</td><td>Fuel Handling Building Exhaust Vent</td><td>HIGH</td></tr></table>	UNIT 1 ARM Channels				Detector Tag No.	Channel No.	Description	Alarm	RE26-3-1	#3	Containment CIS Monitor	ANY	RE26-4-1	#4	Containment CIS Monitor	ANY	RE26-5-1	#5	Containment CIS Monitor	ANY	RE26-6-1	#6	Containment CIS Monitor	ANY	RE26-7-1	#7	Spent Fuel Pool	ANY	RE26-8-1	#8	Refueling Canal	ANY	RE26-36-1	#36	Operating Deck	ANY	UNIT 1 PRM Channel				RSC 28-4	Eberline 04-05	Fuel Handling Building Exhaust Vent	HIGH	UNIT 2 ARM Channels				Detector Tag No.	RMCS Channel	Description	Alarm	RIM-26-2	GAG-002	Operating Deck	ANY	RIM-26-3	GAG-003	Containment CIS Monitor A	ANY	RIM-26-4	GAG-004	Containment CIS Monitor B	ANY	RIM-26-5	GAG-005	Containment CIS Monitor C	ANY	RIM-26-6	GAG-006	Containment CIS Monitor D	ANY	RIM-26-7	GAG-007	Spent Fuel Pool	ANY	RIM-26-8	GAG-008	Spent Fuel Pool	ANY	RIM-26-9	GAG-009	Spent Fuel Pool	ANY	RIM-26-10	GAG-010	Spent Fuel Pool	ANY	RIM-26-11	GAG-011	Spent Fuel Pool	ANY	RIM-26-12	GAG-012	Spent Fuel Pool	ANY	RIM-26-33	GAG-033	Refueling Canal	ANY	UNIT 2 PRM Channel				RS-26-12	EAG-413	Fuel Handling Building Exhaust Vent	HIGH	<p>RU2 UNPLANNED Rise in Plant Radiation Levels.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. a. UNPLANNED water level drop in the Refueling Cavity (during refueling operations) OR Spent Fuel Pool (cannot be maintained greater than 58 feet).</p> <p>AND</p> <p>b. VALID rise in area radiation reading on ANY of the following:</p> <table><tr><th colspan="3">UNIT 1 ARM Channels</th></tr><tr><th>Detector Tag No.</th><th>Channel No.</th><th>Description</th></tr><tr><td>RE26-4-1</td><td>#4</td><td>Containment CIS Monitor</td></tr><tr><td>RE26-6-1</td><td>#6</td><td>Containment CIS Monitor</td></tr><tr><td>RE26-7-1</td><td>#7</td><td>Spent Fuel Pool</td></tr><tr><td>RE26-8-1</td><td>#8</td><td>Refueling Canal</td></tr><tr><td>RE26-36-1</td><td>#36</td><td>Operating Deck</td></tr></table> <table><tr><th colspan="3">UNIT 2 ARM Channels</th></tr><tr><th>Detector Tag No.</th><th>RMCS Channel</th><th>Description</th></tr><tr><td>RIM-26-2</td><td>GAG-002</td><td>Operating Deck</td></tr><tr><td>RIM-26-4</td><td>GAG-004</td><td>Containment CIS Monitor B</td></tr><tr><td>RIM-26-6</td><td>GAG-006</td><td>Containment CIS Monitor D</td></tr><tr><td>RIM-26-7</td><td>GAG-007</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-8</td><td>GAG-008</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-9</td><td>GAG-009</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-10</td><td>GAG-010</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-11</td><td>GAG-011</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-12</td><td>GAG-012</td><td>Spent Fuel Pool</td></tr><tr><td>RIM-26-33</td><td>GAG-033</td><td>Refueling Canal</td></tr></table> <p>OR</p> <p>2. UNPLANNED VALID Area Radiation Monitor readings OR survey results indicate a rise by a factor of 1000 over normal^a levels.</p>	UNIT 1 ARM Channels			Detector Tag No.	Channel No.	Description	RE26-4-1	#4	Containment CIS Monitor	RE26-6-1	#6	Containment CIS Monitor	RE26-7-1	#7	Spent Fuel Pool	RE26-8-1	#8	Refueling Canal	RE26-36-1	#36	Operating Deck	UNIT 2 ARM Channels			Detector Tag No.	RMCS Channel	Description	RIM-26-2	GAG-002	Operating Deck	RIM-26-4	GAG-004	Containment CIS Monitor B	RIM-26-6	GAG-006	Containment CIS Monitor D	RIM-26-7	GAG-007	Spent Fuel Pool	RIM-26-8	GAG-008	Spent Fuel Pool	RIM-26-9	GAG-009	Spent Fuel Pool	RIM-26-10	GAG-010	Spent Fuel Pool	RIM-26-11	GAG-011	Spent Fuel Pool	RIM-26-12	GAG-012	Spent Fuel Pool	RIM-26-33	GAG-033	Refueling Canal	<div>GUIDANCE FOR RU2</div> <p>^aNormal levels can be considered as the highest reading in the past twenty-four hours excluding the current peak value.</p>
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		<p>RA3 Rise in Radiation Levels Within the Facility That Impedes Operation of Systems Required to Maintain Safe Plant Safety Functions.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. Dose rate greater than 15 mR/hr in ANY of the following areas requiring continuous occupancy to maintain plant safety functions:</p> <ul style="list-style-type: none">Control RoomCAS		ABNORMAL RAD LEVELS R – ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT																																																																																																																																																																					

ABNORMAL RAD LEVELS
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APPENDIX C
EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

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APPENDIX C
EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

RECOGNITION CATEGORY C
COLD SHUTDOWN / REFUELING
SYSTEM MALFUNCTIONS

APPENDIX C EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
	CU1 – Basis:	CU1 – Basis:	CU1 – Basis:	CU2 – Basis:
C – COLD SHUTDOWN / REFUELING SYSTEM MALFUNCTIONS	<p>This IC represents the inability to restore and maintain Reactor Pressure Vessel level to above the top of active fuel with containment challenged. Fuel damage is probable if Reactor Pressure Vessel level cannot be restored, as available decay heat will cause boiling, further reducing the Reactor Pressure Vessel level. With the CONTAINMENT breached or challenged then the potential for unmonitored fission product release to the environment is high. This represents a direct path for radioactive inventory to be released to the environment. This is consistent with the definition of a GE. The GE is declared on the occurrence of the loss or IMMINENT loss of function of all three barriers.</p> <p>A number of variables can have a significant impact on heat removal capability challenging the fuel clad barrier. Examples include mid-loop, reduced level/range level, head in place, cavity flooded, RCS venting strategy, decay heat removal system design, vortexing pre-disposition, or steam generator U-tube draining.</p> <p>Analysis indicates that core damage may occur within an hour following continued core uncover therefore, 30 minutes was conservatively chosen.</p> <p>PSL shutdown contingency plans provide for re-establishing CONTAINMENT CLOSURE following a loss of heat removal or RCS inventory functions.</p> <p>In the early stages of a core uncover event, it is unlikely that hydrogen buildup due to a core uncover could result in an explosive mixture of dissolved gases in Containment. However, Containment monitoring and/or sampling should be performed to verify this assumption and a General Emergency declared if it is determined that an explosive mixture exists.</p> <p>If CONTAINMENT CLOSURE is re-established prior to exceeding the 30 minute core uncover time limit then escalation to GE would not occur.</p> <p>EAL #1.b represents the inability to restore and maintain Reactor Pressure Vessel level to above the top of active fuel. 0 inches is the lowest level that can be monitored and is the bottom of the hot leg. Fuel damage is probable if Reactor Pressure Vessel level cannot be restored, as available decay heat will cause boiling, further reducing the Reactor Pressure Vessel level. Post-Three Mile Island studies indicated that the installed nuclear instrumentation will operate erratically when the core is uncovered.</p> <p>Sump and tank level rises must be evaluated against other potential sources of leakage such as cooling water sources inside the containment to ensure they are indicative of RCS leakage.</p> <p>As water level in the Reactor Pressure Vessel lowers, the dose rate above the core will increase. The dose rate due to this core shine should result in Containment High Range Radiation Monitor (CHRRM) indication and possible alarm.</p>	<p>CS1 – Basis:</p> <p>Under the conditions specified by this IC, continued lowering in RCS level is indicative of a loss of inventory control. Inventory loss may be due to an RCS breach, pressure boundary leakage, or continued boiling in the Reactor Pressure Vessel. Thus, declaration of a Site Area Emergency is warranted.</p> <p>The EAL #1 value of 10 inches is well below the minimum level for shutdown cooling system operation.</p> <p>The EAL #2 value of 0 inches is the closest measurement to the top of active fuel.</p> <p>For EAL #3, as water level in the Reactor Pressure Vessel lowers, the dose rate above the core will increase. The dose rate due to this core shine should result in Containment High Range Radiation Monitor (CHRRM) indication and possible alarm. Normal RCS level and Reactor Pressure Vessel level instrumentation systems will usually be available. Redundant means of Reactor Pressure Vessel level indication will usually be installed (including the ability to monitor level visually) to assure that the ability to monitor level will not be interrupted. However, if all level indication were to be lost during a loss of RCS inventory event, the operators would need to determine that Reactor Pressure Vessel inventory loss was occurring by observing sump and tank level changes. Sump and tank level rises must be evaluated against other potential sources of leakage such as cooling water sources inside the containment to ensure they are indicative of RCS leakage. The 30-minute duration allows sufficient time for actions to be performed to recover needed cooling equipment.</p> <p>Escalation to a General Emergency is via CG1 or RG1.</p> <p>Additionally, post-Three Mile Island studies indicated that the installed nuclear instrumentation will operate erratically when the core is uncovered and that this should be used as a tool for making such determinations.</p>	<p>CA3 – Basis:</p> <p>Loss of all AC power compromises all plant safety systems requiring electric power including SDC, ECCS, Containment Heat Removal, Spent Fuel Heat Removal and the Ultimate Heat Sink.</p> <p>The event can be classified as an Alert when in cold shutdown, refueling, or defueled mode because of the significantly reduced decay heat and lower temperature and pressure, increasing the time to restore one of the emergency busses, relative to that specified for the Site Area Emergency EAL.</p> <p>Fifteen minutes was selected as a threshold to exclude transient or momentary losses of off-site power.</p> <p>Escalating to Site Area Emergency, if appropriate, is by Abnormal Rad Levels / Radiological Effluent.</p>	<p>CU2 – Basis:</p> <p>This IC is a precursor of more serious conditions and is considered to be a potential degradation of the level of safety of the plant.</p> <p>Refueling evolutions that lower RCS water level below the Reactor Pressure Vessel flange are carefully planned and procedurally controlled. An UNPLANNED event that results in water level decreasing below the Reactor Pressure Vessel flange, or below the planned RCS water level for the given evolution (if the planned RCS water level is already below the Reactor Pressure Vessel flange), warrants declaration of a Notification of Unusual Event (NOUE) due to the reduced RCS inventory that is available to keep the core covered.</p> <p>The allowance of 15 minutes was chosen because it is reasonable to assume that level can be restored within this time frame using one or more of the redundant means of refill that should be available. If level cannot be restored in this time frame then it may indicate a more serious condition exists.</p> <p>Continued loss of RCS inventory will result in escalation to the Alert emergency classification level via either IC CA1 or CA4.</p> <p>The difference between CU1 and CU2 deals with the RCS conditions that exist between cold shutdown and refueling modes. In the refueling mode the RCS is not intact and Reactor Pressure Vessel level and inventory are monitored by different means. In cold shutdown the RCS will normally be intact and standard RCS inventory and level monitoring means are available.</p> <p>EAL #1 involves a lowering in RCS level below the top of the Reactor Pressure Vessel flange that continues for 15 minutes due to an UNPLANNED event. This EAL is not applicable to lowering levels in the flooded reactor cavity level, which is addressed by RU2 EAL 1, until such time as the level decreases to the level of the vessel flange.</p> <p>If Reactor Pressure Vessel level continues to lower and reaches the point at which a loss of suction to decay heat removal systems has occurred, then escalation to CA1 would be appropriate.</p> <p>EAL #2 addresses conditions in the refueling mode when normal means of core temperature indication and RCS level indication may not be available. Redundant means of Reactor Pressure Vessel level indication will normally be installed (including the ability to monitor level visually) to assure that the ability to monitor level will not be interrupted. However, if all level indication were to be lost during a loss of RCS inventory event, the operators would need to determine that Reactor Pressure Vessel inventory loss was occurring by observing sump and tank level changes. Sump and tank level increases must be evaluated against other potential sources of leakage such as cooling water sources inside the containment to ensure they are indicative of RCS leakage.</p> <p>Escalation to Alert emergency classification level would be via either CA1 or RCS startup via CA4.</p>
	<p>DEFINITION BOX</p> <p>IMMINENT – Mitigation actions have been ineffective, additional actions are not expected to be successful, and trended information indicates that the event or condition will occur. Where IMMINENT timeframes are specified, they shall apply.</p>	<p>Alert</p> <p>CA1 – Basis:</p> <p>These EALs serve as precursors to a loss of ability to adequately cool the fuel. The magnitude of this loss of water indicates that makeup systems have not been effective and may not be capable of preventing further Reactor Pressure Vessel level lowering and potential core uncover. This condition will result in a minimum emergency classification of Alert.</p> <p>EAL #1 addresses the inability to restore and maintain level after reaching this setpoint would be indicative of a failure of the RCS barrier. 23.2 inches indicates that the loss of suction to decay heat removal systems has occurred.</p> <p>EAL #2 is applicable when all level indication is lost during a loss of RCS inventory event, the operators would need to determine that Reactor Pressure Vessel inventory loss was occurring by observing sump and tank level changes. Sump and tank level rises must be evaluated against other potential sources of leakage such as cooling water sources inside the containment to ensure they are indicative of RCS leakage.</p> <p>In the cold shutdown mode, normal RCS level and Reactor Pressure Vessel level instrumentation systems will usually be available. In the refueling mode, normal means of Reactor Pressure Vessel level indication may not be available. Redundant means of Reactor Pressure Vessel level indication will usually be installed (including the ability to monitor level visually) to assure that the ability to monitor level will not be interrupted.</p> <p>The 15-minute duration for the loss of level indication was chosen because it is half of the CS1 Site Area Emergency EAL duration. Significant fuel damage is not expected to occur until the core has been uncovered for greater than 1 hour per the analysis referenced in the CG1 basis. Therefore this EAL meets the definition for an Alert.</p> <p>If Reactor Pressure Vessel level continues to lower then escalation to Site Area Emergency will be via CS1.</p>	<p>Unusual Event</p> <p>CU1 – Basis:</p> <p>This IC is included as a Notification of Unusual Event (NOUE) because it is considered to be a potential degradation of the level of safety of the plant. The inability to maintain or restore level is indicative of loss of RCS inventory.</p> <p>Relief valve normal operation should be excluded from this IC. However, a relief valve that operates and fails to close per design should be considered applicable to this IC if the relief valve cannot be isolated.</p> <p>Prolonged loss of RCS inventory may result in escalation to the Alert level via either IC CA1 or CA4.</p> <p>The difference between CU1 and CU2 deals with the RCS conditions that exist between cold shutdown and refueling modes. In the refueling mode the RCS is not intact and Reactor Pressure Vessel level and inventory are monitored by different means. In cold shutdown the RCS will normally be intact and standard RCS inventory and level monitoring means are available.</p>	<p>CU3 – Basis:</p> <p>The condition indicated by this IC is the degradation of the off-site and on-site AC power systems such that any additional single failure would result in a station blackout. This condition could occur due to a loss of off-site power with a concurrent failure of all but one emergency generator to supply power to its emergency busses. The subsequent loss of this single power source would escalate the event to an Alert in accordance with CA3.</p> <p>Fifteen minutes was selected as a threshold to exclude transient or momentary losses of power.</p>

APPENDIX C EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category
<p>CG1 Loss of RCS Inventory Affecting Fuel Clad Integrity with Containment Challenged.</p> <p>Operating Mode Applicability: 5, 6</p> <p>EAL Values:</p> <p><i>Note</i> The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p> <p>1. Containment challenge indicated by ANY of the following:</p> <ul style="list-style-type: none"> CONTAINMENT CLOSURE NOT established UNPLANNED rise in containment pressure Containment Hydrogen greater than 4% <p>AND</p> <p>ANY one of the following applies:</p> <p>a. Core uncover for 30 minutes or longer as indicated by:</p> <p>RCS level less than:</p> <ul style="list-style-type: none"> 0 inches on LI-1117 OR LI-1117-1 <p>OR</p> <p>b. RCS level cannot be monitored with core uncover indicated by ANY of the following for 30 minutes or longer:</p> <ul style="list-style-type: none"> Containment High Range Radiation Monitor reading greater than 4.8 E+4 R/hr Erratic source range monitor indication UNPLANNED level rise in ANY of the following: <ul style="list-style-type: none"> Containment Sump Reactor Cavity Sump Safeguards Sump Holdup Tanks Refueling Water Tank 	<p>CS1 Loss of RCS Inventory Affecting Core Decay Heat Removal Capability.</p> <p>Operating Mode Applicability: 5, 6</p> <p>EAL Values:</p> <p><i>Note</i> The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p> <p>1. With CONTAINMENT CLOSURE NOT established RCS level less than:</p> <ul style="list-style-type: none"> 10 inches on LI-1117 OR LI-1117-1 <p>OR</p> <p>2. With CONTAINMENT CLOSURE established RCS level less than:</p> <ul style="list-style-type: none"> 0 inches on LI-1117 OR LI-1117-1 <p>OR</p> <p>3. RCS level cannot be monitored for 30 minutes or longer with a loss of Reactor Pressure Vessel inventory as indicated by ANY of the following:</p> <ul style="list-style-type: none"> Containment High Range Radiation Monitor reading greater than 1.3 E+4 R/hr Erratic source range monitor indication Unexplained level rise in ANY of the following: <ul style="list-style-type: none"> Containment Sump Reactor Cavity Sump Safeguards Sump Holdup Tanks Refueling Water Tank 	<p>CA1 Loss of RCS Inventory.</p> <p>Operating Mode Applicability: 5, 6</p> <p>EAL Values:</p> <p><i>Note</i> The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p> <p>1. RCS level less than:</p> <ul style="list-style-type: none"> 23.2 inches on LI-1117 OR LI-1117-1 <p>OR</p> <p>2. RCS level cannot be monitored for 15 minutes or longer</p> <p>AND</p> <p>a. Loss of RCS inventory as indicated by unexplained level rise in ANY of the following:</p> <ul style="list-style-type: none"> Containment Sump Reactor Cavity Sump Safeguards Sump Holdup Tanks Refueling Water Tank 	<p>CU1 RCS Leakage.</p> <p>(00)</p> <p>Operating Mode Applicability: 5</p> <p>EAL Values:</p> <p><i>Note</i> The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p> <p>1. RCS leakage results in the inability to maintain or restore PZR level 25% to 35% for 15 minutes or longer.</p> <p>CU2 UNPLANNED Loss of RCS Inventory.</p> <p>Operating Mode Applicability: 6</p> <p><i>Note</i> The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p> <p>1. UNPLANNED RCS level drop as indicated by EITHER of the following:</p> <ul style="list-style-type: none"> RCS water level drop below 99 inches on LI-1117-1 for 15 minutes or longer when the RCS level band is established above the Reactor Pressure Vessel flange. RCS water level drop below the RCS level band for 15 minutes or longer when the RCS level band is established below the Reactor Pressure Vessel flange. <p>OR</p> <p>2. RCS level cannot be monitored with a loss of RCS inventory as indicated by an unexplained level rise in ANY of the following:</p> <ul style="list-style-type: none"> Containment Sump Reactor Cavity Sump Safeguards Sump Holdup Tanks Refueling Water Tank 	<p>RCS LEAKAGE / INVENTORY</p> <p>C - COLD SHUTDOWN / REFUELING SYSTEM MALFUNCTIONS</p>
<p>DEFINITION BOX</p> <p>CONTAINMENT CLOSURE – The procedurally defined actions taken to secure containment and its associated structures, systems, and components as a functional barrier to fission product release under existing plant conditions.</p> <p>UNPLANNED – A parameter change or an event that is not the result of an intended evolution and requires corrective or mitigative actions.</p>	<p>GUIDANCE BOX FOR CU1</p> <p>Planned evolutions to test, manipulate, repair, perform maintenance or modifications to systems and equipment that result in an EAL value being met or exceeded are not subject to classification and activation requirements as long as the evolution proceeds as planned and is within the operational limitations imposed by the specific operating license. [St. Lucie Technical Basis, Section 3.9]</p> <p>GUIDANCE BOX FOR CU3</p> <p>Power source means either the A3 or B3 4.16 KV bus is being fed from any viable source.</p> <p>GUIDANCE BOX FOR CA3</p> <p>On-site AC power may be provided by the other Unit's Emergency Diesel Generator (EDG) by successful X-tie to either the A3 or B3 4.16 KV bus.</p>	<p>CA3 Loss of all Off-site and all On-site AC Power to Emergency Busses For 15 minutes or Longer.</p> <p>(00)</p> <p>Operating Mode Applicability: 5, 6, Defueled</p> <p>EAL Values:</p> <p><i>Note</i> The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p> <p>1. Loss of all Off-site AND all On-site AC Power to A3 4.16 KV AND B3 4.16 KV busses for 15 minutes or longer.</p>	<p>CU3 AC Power Capability To Emergency Busses Reduced to a Single Power Source for 15 Minutes or longer such that Any Additional Single Failure Would Result in Station Blackout.</p> <p>(00)</p> <p>Operating Mode Applicability: 5, 6</p> <p>EAL Values:</p> <p><i>Note</i> The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p> <p>1. AC power capability to A3 4.16 KV AND B3 4.16 KV reduced to a single power source for 15 minutes or longer.</p> <p>AND</p> <p>a. ANY additional single power source failure will result in Station Blackout.</p>	

APPENDIX C EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
C – COLD SHUTDOWN / REFUELING SYSTEM MALFUNCTIONS			<p>CA4 – Basis:</p> <p>For EAL #1, the RCS Reheat Duration Threshold table addresses complete loss of functions required for core cooling for greater than 60 minutes during refueling and cold shutdown modes when RCS integrity is intact. RCS integrity should be considered to be in place when the RCS pressure boundary is in its normal condition for the cold shutdown mode of operation (e.g., no freeze seals or nozzle dams). The status of CONTAINMENT CLOSURE in this condition is immaterial given that the RCS is providing a high pressure barrier to fission product release to the environment. The 60 minute time frame should allow sufficient time to restore cooling without there being a substantial degradation in plant safety.</p> <p>The RCS Reheat Duration Threshold table also addresses the complete loss of functions required for core cooling for greater than 20 minutes during refueling and cold shutdown modes when CONTAINMENT CLOSURE is established but RCS integrity is not established or RCS inventory is reduced (e.g., mid-loop operation in PWRs). As discussed above, RCS integrity should be assumed to be in place when the RCS pressure boundary is in its normal condition for the cold shutdown mode of operation (e.g., no freeze seals or nozzle dams). The allowed 20 minute time frame was included to allow operator action to restore the heat removal function, if possible. The allowed time frame is consistent with the guidance provided by Generic Letter 88-17, "Loss of Decay Heat Removal" (discussed later in this basis) and is believed to be conservative given that a low pressure Containment barrier to fission product release is established.</p> <p>Also addressed is a complete loss of functions required for core cooling during refueling and cold shutdown modes when neither CONTAINMENT CLOSURE nor RCS integrity are established. RCS integrity is in place when the RCS pressure boundary is in its normal condition for the cold shutdown mode of operation (e.g., no freeze seals or nozzle dams). No delay time is allowed because the evaporated reactor coolant that may be released into the Containment during this heatup condition could also be directly released to the environment.</p> <p>The note (*) indicates that this EAL is not applicable if actions are successful in restoring SDC to operation and RCS temperature is being reduced within the specified time frame.</p> <p>In EAL #2, the 10 psi pressure increase addresses situations where, due to high decay heat loads, the time provided to restore temperature control, should be less than 60 minutes.</p> <p>Escalation to Site Area Emergency would be via CS1 should boiling result in significant Reactor Pressure Vessel level loss leading to core uncover.</p> <p>This IC and its associated EALs are based on concerns raised by Generic Letter 88-17, "Loss of Decay Heat Removal." A number of phenomena such as pressurization, vortexing, steam generator U-tube draining, RCS level differences when operating at a mid-loop condition, decay heat removal system design, and level instrumentation problems can lead to conditions where decay heat removal is lost and core uncover can occur. NRC analyses show that there are sequences that can cause core uncover in 15 to 20 minutes and severe core damage within an hour after decay heat removal is lost.</p> <p>A loss of Technical Specification components alone is not intended to constitute an Alert. The same is true of a momentary UNPLANNED excursion above the Technical Specification cold shutdown temperature limit when the heat removal function is available.</p> <p>The Emergency Coordinator must remain alert to events or conditions that lead to the conclusion that exceeding the EAL is IMMINENT. If, in the judgment of the Emergency Coordinator, an IMMINENT situation is at hand, the classification should be made as if the threshold has been exceeded.</p>	<p>CU4 – Basis:</p> <p>This IC may be a precursor of more serious conditions and, as a result, is considered to be a potential degradation of the level of safety of the plant. In cold shutdown the ability to remove decay heat relies primarily on forced cooling flow. Operation of the systems that provide this forced cooling may be jeopardized due to the unlikely loss of electrical power or RCS inventory. Since the RCS usually remains intact in the cold shutdown mode a large inventory of water is available to keep the core covered.</p> <p>Entry into cold shutdown conditions may be attained within hours of operating at power. Entry into the refueling mode procedurally may not occur for 72 hours or longer after the reactor has been shutdown. Thus the heatup threat and therefore the threat to damaging the fuel clad may be lower for events that occur in the refueling mode with irradiated fuel in the Reactor Pressure Vessel (note that the heatup threat could be lower for cold shutdown conditions if the entry into cold shutdown was following a refueling). In addition, the operators should be able to monitor RCS temperature and Reactor Pressure Vessel level so that escalation to the alert level via CA4 or CA1 will occur if required.</p> <p>During refueling the level in the Reactor Pressure Vessel will normally be maintained above the Reactor Pressure Vessel flange. Refueling evolutions that decrease water level below the Reactor Pressure Vessel flange are carefully planned and procedurally controlled. Loss of forced decay heat removal at reduced inventory may result in more rapid increases in RCS temperatures depending on the time since shutdown.</p> <p>Normal means of core temperature indication and RCS level indication may not be available in the refueling mode. Redundant means of Reactor Pressure Vessel level indication are therefore procedurally installed to assure that the ability to monitor level will not be interrupted. However, if all level and temperature indication were to be lost in either the cold shutdown of refueling modes, EAL 2 would result in declaration of a Notification of Unusual Event (NOUE) if both temperature and level indication cannot be restored within 15 minutes from the loss of both means of indication. Escalation to Alert would be via CA1 based on an inventory loss or CA4 based on exceeding its temperature criteria.</p>
			<p>CU7 – Basis:</p> <p>The purpose of this IC and its associated EALs is to recognize a loss of DC power compromising the ability to monitor and control the removal of decay heat during Cold Shutdown or Refueling operations.</p> <p>The loss of the operating (operable) train is to be considered. If this loss results in the inability to maintain cold shutdown, the escalation to an Alert will be per CA4.</p> <p>The indicated bus voltage is based on the minimum bus voltage necessary for the operation of safety related equipment. This voltage value should incorporate a margin of at least 15 minutes of operation before the onset of inability to operate those loads.</p> <p>Fifteen minutes was selected as a threshold to exclude transient or momentary power losses.</p>	<p>CU8 – Basis:</p> <p>This IC addresses critically events that occur in Cold Shutdown or Refueling modes such as fuel mis-loading events and inadvertent dilution events. This IC indicates a potential degradation of the level of safety of the plant, warranting a Notification of Unusual Event (NOUE) classification.</p> <p>The term "sustained" is used in order to allow exclusion of expected short term positive startup rates from planned fuel bundle or control rod movements during core alteration. These short term positive startup rates are the result of the increase in neutron population due to subcritical multiplication.</p> <p>Escalation would be by Emergency Coordinator Judgment.</p>

DEFINITION BOX

CONTAINMENT CLOSURE – The procedurally defined actions taken to secure containment and its associated structures, systems, and components as a functional barrier to fission product release under existing plant conditions.

IMMINENT – Mitigation actions have been ineffective, additional actions are not expected to be successful, and trended information indicates that the event or condition will occur. Where IMMINENT timeframes are specified, they shall apply.

APPENDIX C **EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE**

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category														
		<p>CA4 Inability to Maintain Plant in Cold Shutdown.</p> <p>Operating Mode Applicability: 5, 6</p> <p>EAL Values:</p> <p>1. An UNPLANNED event results in RCS temperature greater than 200°F for greater than the specified duration on table.</p> <table><tr><th colspan="3">Table: RCS Reheat Duration Thresholds</th></tr><tr><th>RCS Integrity</th><th>Containment Closure</th><th>Duration</th></tr><tr><td>INTACT (but NOT RCS REDUCED INVENTORY)</td><td>N/A</td><td>60 minutes*</td></tr><tr><td rowspan="2">NOT INTACT OR RCS REDUCED INVENTORY</td><td>Established</td><td>20 minutes*</td></tr><tr><td>NOT Established</td><td>0 minutes</td></tr></table> <p>* If SDC is in operation within this time frame and RCS temperature is being reduced, the EAL is NOT applicable.</p> <p align="center">OR</p> <p>2. An UNPLANNED event results in RCS Pressure rise greater than 10 psi due to a loss of RCS cooling. (This EAL does NOT apply in SOLID PLANT OPERATIONS.)</p>	Table: RCS Reheat Duration Thresholds			RCS Integrity	Containment Closure	Duration	INTACT (but NOT RCS REDUCED INVENTORY)	N/A	60 minutes*	NOT INTACT OR RCS REDUCED INVENTORY	Established	20 minutes*	NOT Established	0 minutes	<p>CU4 UNPLANNED Loss of Decay Heat Removal Capability with Irradiated Fuel in the Reactor Vessel</p> <p>Operating Mode Applicability: 5, 6</p> <p>EAL Values:</p> <div><p align="center"><u>Note</u></p><p>The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p></div> <p>1. An UNPLANNED event results in RCS temperature exceeding 200°F</p> <p align="center">OR</p> <p>2. Loss of all RCS temperature AND RCS level indication for 15 minutes or longer.</p>	DECAY HEAT
Table: RCS Reheat Duration Thresholds																		
RCS Integrity	Containment Closure	Duration																
INTACT (but NOT RCS REDUCED INVENTORY)	N/A	60 minutes*																
NOT INTACT OR RCS REDUCED INVENTORY	Established	20 minutes*																
	NOT Established	0 minutes																
<p align="center">DEFINITION BOX</p> <p>INTACT – If the RCS can be pressurized with minimal operator actions (within 10 minutes), <u>Then</u> the RCS is INTACT.</p> <p>REDUCED INVENTORY – A shutdown cooling condition when fuel is in the Reactor Vessel and the Reactor Vessel water level is between 3 feet below the top of the Reactor Vessel Flange and equal to the top of the flow area of the RCS hot legs nozzles at the Reactor Vessel (33' to 31' 3" by Tyson). [ADM-09.14]</p> <p>SOLID PLANT OPERATIONS – When the pressurizer is filled and the RCS is in a water-solid condition during heatup and cooldown between hot shutdown and refueling conditions. [DBD-RCS-1/2]</p> <p>UNPLANNED – A parameter change or an event that is not the result of an intended evolution and requires corrective or mitigative actions.</p>			<p>CU7 Loss of Required DC Power for 15 Minutes Or Longer.</p> <p>Operating Mode Applicability: 5, 6</p> <p>EAL Values:</p> <div><p align="center"><u>Note</u></p><p>The Emergency Coordinator should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.</p></div> <p>1. Less than 112V on 1[2]A AND 1[2]B required 125 VDC busses for 15 minutes or longer.</p>	DC POWER														
		<p>CU8 Inadvertent Criticality.</p> <p>Operating Mode Applicability: 5, 6</p> <p>EAL Values:</p> <p>1. UNPLANNED sustained positive startup rate observed on nuclear instrumentation.</p>		CRITICALITY														
C – COLD SHUTDOWN / REFUELING SYSTEM MALFUNCTIONS																		

APPENDIX C **EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE**

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
C – COLD SHUTDOWN / REFUELING SYSTEM MALFUNCTIONS				<p>CU6 – Basis:</p> <p>The purpose of this IC and its associated EALs is to recognize a loss of communications capability that either defeats the plant operations staff ability to perform routine tasks necessary for plant operations or the ability to communicate issues with off-site authorities. The loss of off-site communications ability is expected to be significantly more comprehensive than the condition addressed by 10 CFR 50.72.</p> <p>The availability of one method of ordinary off-site communications is sufficient to inform federal, state, and local authorities of plant issues. This EAL is intended to be used only when extraordinary means (e.g., relaying of information from radio transmissions, individuals being sent to off-site locations, etc.) are being utilized to make communications possible.</p> <p>The list for on-site communications loss encompasses the loss of all means of communications routinely used for operations.</p> <p>The list for off-site communications loss encompasses the loss of all means of communications routinely used for off-site emergency notifications.</p>

APPENDIX C **EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE**

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category
			CU6 Loss of All On-site or Off-site Communications Capabilities. (08) Operating Mode Applicability: 5, 6, Defueled EAL Values: 1. Loss of ALL of the following on-site communication methods affecting the ability to perform routine operations: • Plant Page • Plant Radios • Commercial Phones* <u>OR</u> 2. Loss of ALL of the following off-site communication methods in EITHER box: <u>State and County Notifications</u> • Hot Ringdown (HRD) • Commercial phone* • EMnet <u>OR</u> <u>NRC Notifications</u> • Emergency Notification System (ENS) • Commercial phone*	COMMUNICATIONS C – COLD SHUTDOWN / REFUELING SYSTEM MALFUNCTIONS
			<div> <div>GUIDANCE FOR CUS</div> <div>* Commercial phones include installed cell phones in the Control Room, but not personal cell phones.</div> </div>	

APPENDIX C
EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

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APPENDIX C
EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

RECOGNITION CATEGORY H
HAZARDS AND OTHER CONDITIONS
AFFECTING PLANT SAFETY

APPENDIX C EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

Rec. Cat.	General Emergency	Alert	Alert	Unusual Event
H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY	<p>HG1 – Basis:</p> <p>EAL #1 encompasses conditions under which a HOSTILE ACTION has resulted in a loss of physical control of ESSENTIAL AREAS (containing vital equipment or controls of vital equipment) required to maintain safety functions and control of that equipment cannot be transferred to and operated from another location.</p> <p>These safety functions are reactivity control, RCS inventory, and secondary heat removal. If control of the plant equipment necessary to maintain safety functions can be transferred to another location, then the above threshold is not met.</p> <p>EAL #2 addresses failure of spent fuel cooling systems as a result of HOSTILE ACTION if IMMINENT fuel damage is likely, such as when a freshly off-loaded reactor core is in the spent fuel pool.</p>	<p>HA4 – Basis:</p> <p><i>Note:</i> <i>Timely and accurate communication between Security Shift Supervision and the Control Room is crucial for the implementation of effective Security EALs.</i></p> <p>These EALs address the contingency for a very rapid progression of events, such as that experienced on September 11, 2001. They are not premised solely on the potential for a radiological release. Rather the issue includes the need for rapid assistance due to the possibility for significant and indeterminate damage from additional air, land or water attack elements.</p> <p>The fact that the site is under serious attack or is an identified attack target with minimal time available for further preparation or additional assistance to arrive requires a heightened state of readiness and implementation of protective measures that can be effective (such as on-site evacuation, dispersal or sheltering).</p>	<p>HA1 – Basis:</p> <p>These EALs escalate from HU1 in that the occurrence of the event has resulted in VISIBLE DAMAGE to plant structures or areas containing equipment necessary for a safe shutdown, or has caused damage to the safety systems in those structures evidenced by Control Room indications of degraded system response or performance. The occurrence of VISIBLE DAMAGE and/or degraded system response is intended to discriminate against lesser events. The initial report should not be interpreted as mandating a lengthy damage assessment prior to classification. No attempt is made in this EAL to assess the actual magnitude of the damage. The significance here is not that a particular system or structure was damaged, but rather, that the event was of sufficient magnitude to cause this degradation.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on System Malfunction ICs.</p> <p>EALs #2 – #5 refer to specific structures or areas that contain safety system or component and functions required for safe shutdown of the plant.</p> <p>In EAL #1 Seismic events of this magnitude can result in ESSENTIAL AREAS being subjected to forces beyond design limits, and thus damage may be assumed to have occurred to plant safety systems. The US Geological Survey (USGS) National Earthquake Information Center can confirm if an earthquake has occurred in the area of the plant.</p> <p>EAL #2 is based on a tornado striking (touching down) or high winds that have caused VISIBLE DAMAGE to structures containing functions or systems required for safe shutdown of the plant.</p>	<p>HU4 – Basis (continued):</p> <p>EAL #3 is to ensure that notifications for the aircraft threat are made in a timely manner and that Offsite Response Organizations (OROs) and plant personnel are at a state of heightened awareness regarding the credible threat. It is not the intent of this EAL to replace existing non-hostile related EALs involving aircraft.</p> <p>This EAL is met when a plant receives information regarding an aircraft threat from NRC. Validation is performed by calling the NRC or by other approved methods of authentication. Only the plant to which the specific threat is made need declare the Unusual Event.</p> <p>The NRC Headquarters Operations Officer (HOO) will communicate to the licensee if the threat involves an airliner (airliner is meant to be a large aircraft with the potential for causing significant damage to the plant). The status and size of the plane may be provided by NORAD through the NRC.</p> <p>Escalation to Alert emergency classification level would be via HA4 would be appropriate if the threat involves an airliner within 30 minutes of the plant.</p>
	<p>Site Area Emergency</p> <p>HS4 – Basis:</p> <p>This condition represents an escalated threat to plant safety above that contained in the Alert in that a hostile force has progressed from the OWNER CONTROLLED AREA to the PROTECTED AREA.</p> <p>This EAL addresses the contingency for a very rapid progression of events, such as that experienced on September 11, 2001. It is not premised solely on the potential for a radiological release. Rather the issue includes the need for rapid assistance due to the possibility for significant and indeterminate damage from additional air, land or water attack elements.</p> <p>The fact that the site is under serious attack with minimal time available for further preparation or additional assistance to arrive requires Offsite Response Organization (ORO) readiness and preparation for the implementation of protective measures.</p> <p>This EAL addresses the potential for a very rapid progression of events due to a HOSTILE ACTION. It is not intended to address incidents that are accidental events or acts of civil disobedience, such as small aircraft impact, hunters, or physical disputes between employees within the PROTECTED AREA. Those events are adequately addressed by other EALs.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on actual plant status after impact or progression of attack.</p>	<p>HA5 – Basis:</p> <p>With the Control Room evacuated, additional support, monitoring and direction through the Technical Support Center and/or other emergency response facilities may be necessary.</p> <p>Inability to establish plant control from outside the Control Room will escalate this event to a Site Area Emergency.</p>	<p>Unusual Event</p> <p><i>Note:</i> <i>Timely and accurate communication between Security Shift Supervision and the Control Room is crucial for the implementation of effective Security EALs.</i></p> <p>Security events which do not represent a potential degradation in the level of safety of the plant are reported under 10 CFR 73.71 or in some cases under 10 CFR 50.72. Security events assessed as HOSTILE ACTIONS are classifiable under HA4, HS4 and HG1.</p> <p>A higher initial classification could be made based upon the nature and timing of the security threat and potential consequences. The licensee shall consider upgrading the emergency response status and emergency classification level in accordance with the site's Physical Security Plan and Emergency Plan.</p> <p>Reference is made to site specific security shift supervision because these individuals are the designated personnel on-site qualified and trained to confirm that a security event is occurring or has occurred. Training on security event classification confirmation is closely controlled due to the strict secrecy controls placed on the plant Physical Security Plan.</p> <p>EAL #1 is based on the Physical Security Plan. Safeguards Contingency Plans are based on guidance provided by NEI 03-12, Template for Security Plan, Training and Qualification Plan.</p> <p>EAL #2 is included to ensure that appropriate notifications for the security threat are made in a timely manner. This includes information of a credible threat. Only the plant to which the specific threat is made need declare the Notification of an Unusual Event.</p> <p>The determination of "credible" is made through use of information found in the Physical Security Plan.</p> <p>(Continued in next column)</p>	<p>HU1 – Basis:</p> <p>These EALs are categorized on the basis of the occurrence of an event of sufficient magnitude to be of concern to plant operators.</p> <p>EAL #1: Damage may be caused to some portions of the site, but should not affect ability of safety functions to operate.</p> <p>As defined in the EPRI-sponsored Guidelines for Nuclear Plant Response to an Earthquake, dated October 1989, a "felt earthquake" is: An earthquake of sufficient intensity such that: (a) the vibratory ground motion is felt at the nuclear plant site and recognized as an earthquake based on a consensus of control room operators on duty at the time, and (b) for plants with operable seismic instrumentation, the seismic switches of the plant are activated.</p> <p>The US Geological Survey (USGS) National Earthquake Information Center can confirm if an earthquake has occurred in the area of the plant.</p> <p>EAL #2 is based on the assumption that a tornado striking (touching down) or high winds within PROTECTED AREA.</p> <p>EAL #3 This EAL addresses the effect of internal flooding caused by events such as component failures, equipment misalignment, or outage activity mishaps.</p>
	<p>HS2 – Basis:</p> <p>The intent of this IC is to capture those events where control of the plant cannot be reestablished in a timely manner. In this case, expeditious transfer of control of safety systems has not occurred (although fission product barrier damage may not yet be indicated).</p> <p>The intent of the EAL is to establish control of important plant equipment and knowledge of important plant parameters in a timely manner. Primary emphasis should be placed on those components and instruments that supply protection for and information about safety functions. These safety functions are reactivity control, RCS inventory, and secondary heat removal.</p> <p>The determination of whether or not control is established at the remote shutdown panel is based on Emergency Coordinator (EC) judgment. The Emergency Coordinator is expected to make a reasonable, informed judgment within the 15 minute timeframe for transfer that the licensee has control of the plant from the remote shutdown panel.</p> <p>Escalation of this emergency classification level, if appropriate, would be by Fission Product Barrier Table or Abnormal Rad Levels/Radiological Effluent EALs.</p>			

APPENDIX C **EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE**

General Emergency		Site Area Emergency		Alert		Unusual Event		Recognition Category																	
HG1 HOSTILE ACTION Resulting in Loss of Physical Control of the Facility. Operating Mode Applicability: All EAL Values: 1. A HOSTILE ACTION has occurred such that plant personnel are unable to operate equipment required to maintain safety functions. <u>OR</u> 2. A HOSTILE ACTION has caused failure of Spent Fuel Cooling Systems and IMMINENT fuel damage is likely for a freshly off-loaded reactor core in pool.		HS4 HOSTILE ACTION within the PROTECTED AREA Operating Mode Applicability: All EAL Values: 1. A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the Security Shift Supervisor.		HA4 HOSTILE ACTION within the OWNER CONTROLLED AREA or Airborne Attack Threat Operating Mode Applicability: All EAL Values: 1. A HOSTILE ACTION is occurring or has occurred within the OWNER CONTROLLED AREA as reported by the Security Shift Supervisor. <u>OR</u> 2. A validated notification from NRC of an AIRLINER attack threat within 30 minutes of the site.		HU4 Confirmed SECURITY CONDITION or Threat Which Indicates a Potential Degradation in the Level of Safety of the Plant. Operating Mode Applicability: All EAL Values: 1. A SECURITY CONDITION that does NOT involve a HOSTILE ACTION as reported by the Security Shift Supervisor. <u>OR</u> 2. A credible St. Lucie security threat notification. <u>OR</u> 3. A validated notification from NRC providing information of an aircraft threat.		SECURITY																	
		HS2 Control Room Evacuation Has Been Initiated and Plant Control Cannot be Established. Operating Mode Applicability: All EAL Values: 1. Control Room evacuation has been initiated. <u>AND</u> a. Control of the plant cannot be established within 15 minutes.		HA5 Control Room Evacuation has been Initiated. Operating Mode Applicability: All EAL Values: 1. 1[2]-ONP-100.02, Control Room Inaccessibility, requires Control Room evacuation.				CR EVACUATION																	
DEFINITION BOX AIRLINER – Airliner is meant to be a large aircraft with the potential for causing significant damage to the plant. ESSENTIAL AREAS – Areas within the PROTECTED AREA, that contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation. FRESHLY OFF-LOADED REACTOR CORE IN POOL – A freshly off-loaded reactor core, in the Spent Fuel Pool, exists during the period of time when core off-load begins until core reload is complete. HOSTILE ACTION – An act toward a Nuclear Power Plant (NPP) 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. Other acts that satisfy the overall intent may be included. HOSTILE ACTION should not be construed to include acts of civil disobedience or felonious acts that are not part of a concerted attack on the NPP. Non-terrorism-based EALs should be used to address such activities (i.e., this may include violent acts between individuals in the owner controlled area). IMMINENT – Mitigation actions have been ineffective, additional actions are not expected to be successful, and trended information indicates that the event or condition will occur. Where IMMINENT timeframes are specified, they shall apply. OWNER CONTROLLED AREA – That portion of FPL property surrounding and including the St. Lucie Nuclear Power Plant which is subject to limited access and control as deemed appropriate by FPL. [EPlan] 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. SECURITY CONDITION – Any Security Event as listed in the approved security contingency plan that constitutes a threat/compromise to site security, threat/risk to site personnel, or a potential degradation to the level of safety of the plant. A SECURITY CONDITION does not involve a HOSTILE ACTION. VISIBLE DAMAGE – Damage to equipment or structure that is readily observable without measurements, testing, or analysis. Damage is sufficient to cause concern regarding the continued operability or reliability of the affected structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, and paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.		HA1 Natural or Destructive Phenomena Affecting ESSENTIAL AREAS. Operating Mode Applicability: All EAL Values: 1. Seismic event greater than Operating Basis Earthquake (OBE) as indicated by seismic instrumentation (Annunciator S-30[S-44]) GREATER THAN 0.05 g. <u>AND</u> a. Earthquake confirmed by ANY of the following: <ul style="list-style-type: none">Earthquake felt in plantUS Geological Survey (USGS) National Earthquake Information CenterControl Room indication of degraded performance of systems required for the safe shutdown of the plant. <u>OR</u> 2. Tornado striking OR high winds greater than 120 mph resulting in VISIBLE DAMAGE to ANY of the following structures containing safety systems or component OR Control Room indication of degraded performance of those safety systems: <table><tr><td>Reactor Containment Building and Shield Building</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Reactor Auxiliary Building (RAB)</td><td>Component Cooling Water (CCW) platform area</td></tr><tr><td>Steam Trestle Area</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Condensate Storage Tank (CST)</td><td>Diesel Oil Storage Tank (DOST)</td></tr><tr><td>Ultimate Heat Sink (UHS)</td><td>Refueling Water Tank (RWT)</td></tr></table>		Reactor Containment Building and Shield Building	Intake Cooling Water (ICW)	Reactor Auxiliary Building (RAB)	Component Cooling Water (CCW) platform area	Steam Trestle Area	Emergency Diesel Generator Building	Condensate Storage Tank (CST)	Diesel Oil Storage Tank (DOST)	Ultimate Heat Sink (UHS)	Refueling Water Tank (RWT)	HU1 Natural or Destructive Phenomena Affecting the PROTECTED AREA. Operating Mode Applicability: All EAL Values: 1. Seismic event identified by ANY 2 of the following: <ul style="list-style-type: none">Seismic event confirmed by plant seismic monitor instruments (Annunciators S-46 [S-54])Earthquake felt in plantUS Geological Survey (USGS) National Earthquake Information Center <u>OR</u> 2. Tornado striking within PROTECTED AREA boundary OR high winds greater than 120 mph. <u>OR</u> 3. Internal flooding that has the potential to affect safety related equipment required by Technical Specifications for the current operating mode in ANY of the following areas: <table><tr><td>Control Room</td><td>Intake Structure</td></tr><tr><td>Cable Spreading Room</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Vital Switchgear Room</td><td>Component Cooling Water (CCW)</td></tr><tr><td>Steam Trestle Area</td><td>Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations</td></tr><tr><td>Emergency Diesel Generator Building</td><td></td></tr></table>		Control Room	Intake Structure	Cable Spreading Room	Intake Cooling Water (ICW)	Vital Switchgear Room	Component Cooling Water (CCW)	Steam Trestle Area	Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations	Emergency Diesel Generator Building	
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<u>OR</u> (Continued on next page)		<u>OR</u> (Continued on next page)		NATURAL OR MAN-MADE EVENTS																					

H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

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Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY		<div>DEFINITION BOX</div> <p>ESSENTIAL AREAS – Areas within the PROTECTED AREA, that contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation.</p> <p>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.</p>	<p>HA1 – Basis:</p> <p>EAL #3 addresses the effect of internal flooding caused by events such as component failures, equipment misalignment, or outage activity mishaps. It is based on the degraded performance of systems, or has created industrial safety hazards (e.g., electrical shock) that preclude necessary access to operate or monitor safety equipment. The inability to access, operate or monitor safety equipment represents an actual or substantial potential degradation of the level of safety of the plant.</p> <p>Flooding as used in this EAL describes a condition where water is entering the room faster than installed equipment is capable of removal, resulting in a rise of water level within the room. Classification of this EAL should not be delayed while corrective actions are being taken to isolate the water source.</p> <p>EAL #4 addresses the threat to safety related equipment imposed by PROJECTILES generated by main turbine rotating component failures. Therefore, this EAL is consistent with the definition of an ALERT in that the potential exists for actual or substantial potential degradation of the level of safety of the plant.</p> <p>EAL #5 addresses vehicle crashes within the PROTECTED AREA that results in VISIBLE DAMAGE to ESSENTIAL AREAS or indication of damage to safety structures, systems, or components containing functions and systems required for safe shutdown of the plant.</p> <p>EAL #6 addresses other phenomena that result in VISIBLE DAMAGE to the ESSENTIAL AREAS or results in indication of damage to structures, systems, or components containing functions and systems required for safe shutdown of the plant (such as hurricane and storm surge) that can also be precursors of more serious events.</p>	<p>HU1 – Basis:</p> <p>EAL #4 addresses main turbine rotating component failures of sufficient magnitude to cause observable damage to the turbine casing or to the seals of the turbine generator. Generator seal damage observed after generator purge does not meet the intent of this EAL because it did not impact normal operation of the plant.</p> <p>Of major concern is the potential for leakage of combustible fluids (lubricating oils) and gases (hydrogen cooling) to the plant environs. Actual FIRES and flammable gas build up are appropriately classified via HU2 and HU3.</p> <p>This EAL is consistent with the definition of a Notification of Unusual Event (NOUE) while maintaining the anticipatory nature desired and recognizing the risk to non-safety related equipment. Escalation of the emergency classification to HA1 is based on damage done by PROJECTILES generated by the failure or in conjunction with a steam generator tube rupture. These latter events would be classified by the radiological ICs or Fission product Barrier ICs.</p> <p>EAL #5 addresses natural weather phenomena of a hurricane warning and associated rain fall and storm surges.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on VISIBLE DAMAGE, or by other in plant conditions, via HA1.</p>

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		<p>HA1 (Continued)</p> <p>3. Internal flooding in ANY of the following structures resulting in an electrical shock hazard that precludes access to operate or monitor safety equipment OR Control Room indication of degraded performance of those safety systems:</p> <table><tr><td>Control Room</td><td>Intake Structure</td></tr><tr><td>Cable Spreading Room</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Vital Switchgear Room</td><td>Component Cooling Water (CCW)</td></tr><tr><td>Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Steam Trestle Area</td><td></td></tr></table> <p align="center">OR</p> <p>4. Turbine failure-generated PROJECTILES resulting in VISIBLE DAMAGE to or penetration of ANY of the following structures containing safety systems or components OR Control Room indication of degraded performance of those safety systems:</p> <table><tr><td>Reactor Containment Building and Shield Building</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Reactor Auxiliary Building (RAB)</td><td>Component Cooling Water (CCW) platform area</td></tr><tr><td>Steam Trestle Area</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Condensate Storage Tank (CST)</td><td>Diesel Oil Storage Tank (DOST)</td></tr><tr><td>Ultimate Heat Sink (UHS)</td><td>Refueling Water Tank (RWT)</td></tr></table> <p align="center">OR</p> <p>5. Vehicle crash resulting in VISIBLE DAMAGE to ANY of the following structures containing safety systems, or components OR Control Room indication of degraded performance of those safety systems:</p> <table><tr><td>Reactor Containment Building and Shield Building</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Reactor Auxiliary Building (RAB)</td><td>Component Cooling Water (CCW) platform area</td></tr><tr><td>Steam Trestle Area</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Condensate Storage Tank (CST)</td><td>Diesel Oil Storage Tank (DOST)</td></tr><tr><td>Ultimate Heat Sink (UHS)</td><td>Refueling Water Tank (RWT)</td></tr></table> <p align="center">OR</p> <p>6. Natural occurrences resulting in VISIBLE DAMAGE to ANY of the following structures containing equipment necessary for safe shutdown, OR has caused damage as evidenced by Control Room indication of degraded performance of those systems:</p> <table><tr><td>Control Room</td><td>Intake Structure</td></tr><tr><td>Cable Spreading Room</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Vital Switchgear Room</td><td>Component Cooling Water (CCW)</td></tr><tr><td>Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Steam Trestle Area</td><td></td></tr></table>	Control Room	Intake Structure	Cable Spreading Room	Intake Cooling Water (ICW)	Vital Switchgear Room	Component Cooling Water (CCW)	Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations	Emergency Diesel Generator Building	Steam Trestle Area		Reactor Containment Building and Shield Building	Intake Cooling Water (ICW)	Reactor Auxiliary Building (RAB)	Component Cooling Water (CCW) platform area	Steam Trestle Area	Emergency Diesel Generator Building	Condensate Storage Tank (CST)	Diesel Oil Storage Tank (DOST)	Ultimate Heat Sink (UHS)	Refueling Water Tank (RWT)	Reactor Containment Building and Shield Building	Intake Cooling Water (ICW)	Reactor Auxiliary Building (RAB)	Component Cooling Water (CCW) platform area	Steam Trestle Area	Emergency Diesel Generator Building	Condensate Storage Tank (CST)	Diesel Oil Storage Tank (DOST)	Ultimate Heat Sink (UHS)	Refueling Water Tank (RWT)	Control Room	Intake Structure	Cable Spreading Room	Intake Cooling Water (ICW)	Vital Switchgear Room	Component Cooling Water (CCW)	Reactor Auxiliary Building (RAB) -0.5 ft. & 19.5 ft Elevations	Emergency Diesel Generator Building	Steam Trestle Area		<p>HU1 (Continued)</p> <p>4. Turbine failure resulting in casing penetration or damage to turbine or generator seals.</p> <p align="center">OR</p> <p>5. Natural occurrences affecting the PROTECTED AREA; ANY of the following:</p> <ul style="list-style-type: none">Confirmed hurricane warning is in effect.Low intake canal level of -10.5 ft. MLW for 1 hour or more.Visual sightings by station personnel that water levels are approaching storm drain system capacity.	<p align="center">NATURAL OR MAN-MADE EVENTS</p> <p align="center">H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY</p>
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<div><div>DEFINITION BOX</div><div><p>PROJECTILE – An object directed toward a Nuclear Power Plant (NPP) that could cause concern for its continued operability, reliability, or personnel safety.</p><p>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.</p><p>VISIBLE DAMAGE – Damage to equipment or structure that is readily observable without measurements, testing, or analysis. Damage is sufficient to cause concern regarding the continued operability or reliability of the affected structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, and paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.</p></div></div>																																												

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Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY			<p>HA2 – Basis:</p> <p>VISIBLE DAMAGE is used to identify the magnitude of the FIRE or EXPLOSION and to discriminate against minor FIRES and EXPLOSIONS.</p> <p>The reference to structures containing safety systems or components is included to discriminate against FIRES or EXPLOSIONS in areas having a low probability of affecting safe operation. The significance here is not that a safety system was degraded but the fact that the FIRE or EXPLOSION was large enough to cause damage to these systems.</p> <p>The use of VISIBLE DAMAGE should not be interpreted as mandating a lengthy damage assessment prior to classification. The declaration of an Alert and the activation of the Technical Support Center will provide the Emergency Coordinator with the resources needed to perform detailed damage assessments.</p> <p>The Emergency Coordinator also needs to consider any security aspects of the EXPLOSION.</p> <p>Escalation of this emergency classification level, if appropriate, will be based on System Malfunctions, Fission Product Barrier Degradation or Abnormal Rad Levels / Radiological Effluent ICs.</p>	<p>HU2 – Basis:</p> <p>The purpose of this IC is to address the magnitude and extent of FIRES or EXPLOSIONS that may be potentially significant precursors to damage to safety systems. It addresses the FIRE / EXPLOSION, and not the degradation in performance of affected systems that may result.</p> <p>As used here, detection is visual observation and report by plant personnel or sensor alarm indication.</p> <p>For EAL #1, the 15 minute time period begins with a credible notification that a FIRE is occurring, or indication of a fire detection system alarm/actuation. Verification of a fire detection system alarm includes actions that can be taken within the Control Room to ensure that the alarm is not spurious. An alarm is assumed to be an indication of a FIRE unless it is disproved within the 15 minute period by personnel dispatched to the scene. In other words, a personnel report from the scene may be used to disprove a sensor alarm if received within 15 minutes of the alarm, but shall not be required to verify the alarm.</p> <p>The intent of this 15 minute duration is to size the FIRE and to discriminate against small FIRES that are readily extinguished, (e.g., smoldering waste paper basket).</p>
			<p>HA3 – Basis:</p> <p>Gases in an ESSENTIAL AREA can affect the ability to safely operate or safely shutdown the reactor.</p> <p>The fact that SCBA may be worn does not eliminate the need to declare the event.</p> <p>Declaration should not be delayed for confirmation from atmospheric testing if the atmosphere poses an immediate threat to life and health or an immediate threat of severe exposure to gases. This could be based upon documented analysis, indication of personal ill effects from exposure, or operating experience with the hazards.</p> <p>If the equipment in the stated area was already inoperable, or out of service, before the event occurred, then this EAL should not be declared as it will have no adverse impact on the ability of the plant to safely operate or safely shutdown beyond that already allowed by Technical Specifications at the time of the event.</p> <p>An asphyxiant is a gas capable of reducing the level of oxygen in the body to dangerous levels. Most commonly, asphyxiants work by merely displacing air in an enclosed environment. This reduces the concentration of oxygen below the normal level of around 19%, which can lead to breathing difficulties, unconsciousness or even death.</p> <p>An uncontrolled release of flammable gasses within a facility structure has the potential to affect safe operation of the plant by limiting either operator or equipment operations due to the potential for ignition and resulting equipment damage/personnel injury. Flammable gasses, such as hydrogen and acetylene, are routinely used to maintain plant systems (hydrogen) or to repair equipment/components (acetylene - used in welding). This EAL assumes concentrations at which gases can ignite/support combustion.</p> <p>Escalation to a higher emergency classification level, if appropriate, will be based on System Malfunction, Fission Product Barrier Table or Abnormal Rad Levels / Radioactive Effluent ICs.</p>	<p>EAL #2 addresses only those EXPLOSIONS of sufficient force to damage permanent structures or equipment within the PROTECTED AREA. No attempt is made to assess the actual magnitude of the damage. The occurrence of the EXPLOSION is sufficient for declaration. The Emergency Coordinator also needs to consider any security aspects of the EXPLOSION, if applicable.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on HA2.</p> <p>HU3 – Basis:</p> <p>This IC is based on the release of toxic, corrosive, asphyxiant or flammable gases of sufficient quantity to affect NORMAL PLANT OPERATIONS.</p> <p>The fact that SCBA may be worn does not eliminate the need to declare the event.</p> <p>This IC is not intended to require significant assessment or quantification. It assumes an uncontrolled process that has the potential to affect plant operations. This would preclude small or incidental releases, or releases that do not impact structures needed for plant operation.</p> <p>An asphyxiant is a gas capable of reducing the level of oxygen in the body to dangerous levels. Most commonly, asphyxiants work by merely displacing air in an enclosed environment. This reduces the concentration of oxygen below the normal level of around 19%, which can lead to breathing difficulties, unconsciousness or even death.</p> <p>Escalation of this emergency classification level, if appropriate, would be based on HA3.</p>

APPENDIX C **EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE**

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category																											
<div>DEFINITION BOX</div> <p>ESSENTIAL AREAS – Areas within the PROTECTED AREA, that contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation.</p> <p>EXPLOSION – A rapid, violent, unconfined combustion, or catastrophic failure of pressurized/energized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems, or components.</p> <p>FIRE – Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute FIRES. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.</p> <p>NORMAL PLANT OPERATIONS – Activities at the plant site associated with routine testing, maintenance, or equipment operations, in accordance with normal operating or administrative procedures. Entry into abnormal or emergency operating procedures, or deviation from normal security or radiological controls posture, is a departure from NORMAL PLANT OPERATIONS.</p> <p>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.</p> <p>VISIBLE DAMAGE – Damage to equipment or structure that is readily observable without measurements, testing, or analysis. Damage is sufficient to cause concern regarding the continued operability or reliability of the affected structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, and paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.</p>	<p>HA2 FIRE or EXPLOSION Affecting the Operability of Plant Safety Systems Required to Establish or Maintain Safe Shutdown.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. FIRE or EXPLOSION resulting in VISIBLE DAMAGE to ANY of the following structures containing safety systems or components OR Control Room indication of degraded performance of those safety systems:</p> <table><tr><td>Reactor Containment Building and Shield Building</td><td>Intake Structure</td></tr><tr><td>Control Room</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Reactor Auxiliary Building (RAB)</td><td>Component Cooling Water (CCW)</td></tr><tr><td>Turbine Building if the fire precludes access to the Steam Trestle, Control Room or RAB</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Diesel Oil Storage Tank (DOST)</td><td>Condensate Storage Tank (CST)</td></tr><tr><td>Ultimate Heat Sink (UHS)</td><td>Steam Trestle Area</td></tr><tr><td></td><td>Refueling Water Tank (RWT)</td></tr></table>	Reactor Containment Building and Shield Building	Intake Structure	Control Room	Intake Cooling Water (ICW)	Reactor Auxiliary Building (RAB)	Component Cooling Water (CCW)	Turbine Building if the fire precludes access to the Steam Trestle, Control Room or RAB	Emergency Diesel Generator Building	Diesel Oil Storage Tank (DOST)	Condensate Storage Tank (CST)	Ultimate Heat Sink (UHS)	Steam Trestle Area		Refueling Water Tank (RWT)	<p>HU2 FIRE Within the PROTECTED AREA Not Extinguished Within 15 Minutes of Detection or EXPLOSION within the PROTECTED AREA.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <div><p><i>Note</i> The Emergency Coordinator should not wait until applicable time has elapsed, but should declare the event as soon as it is determined that the duration has exceeded, or will likely exceed, the applicable time.</p></div> <p>1. FIRE NOT extinguished within 15 minutes of Control Room FIRE alarm OR Control Room notification in ANY of the following areas:</p> <table><tr><td>Reactor Containment Building and Shield Building</td><td>Intake Structure</td></tr><tr><td>Control Room</td><td>Intake Cooling Water (ICW)</td></tr><tr><td>Reactor Auxiliary Building (RAB)</td><td>Component Cooling Water (CCW)</td></tr><tr><td>Turbine Building if the fire precludes access to the Steam Trestle, Control Room or RAB</td><td>Emergency Diesel Generator Building</td></tr><tr><td>Diesel Oil Storage Tank (DOST)</td><td>Condensate Storage Tank (CST)</td></tr><tr><td>Ultimate Heat Sink (UHS)</td><td>Steam Trestle Area</td></tr><tr><td></td><td>Refueling Water Tank (RWT)</td></tr></table> <p>OR</p> <p>2. EXPLOSION within the PROTECTED AREA.</p>	Reactor Containment Building and Shield Building	Intake Structure	Control Room	Intake Cooling Water (ICW)	Reactor Auxiliary Building (RAB)	Component Cooling Water (CCW)	Turbine Building if the fire precludes access to the Steam Trestle, Control Room or RAB	Emergency Diesel Generator Building	Diesel Oil Storage Tank (DOST)	Condensate Storage Tank (CST)	Ultimate Heat Sink (UHS)	Steam Trestle Area		Refueling Water Tank (RWT)	FIRE / EXPLOSION
	Reactor Containment Building and Shield Building	Intake Structure																													
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Ultimate Heat Sink (UHS)	Steam Trestle Area																														
	Refueling Water Tank (RWT)																														
<div>GUIDANCE BOX FOR HA3, HU3</div> <p>Planned controlled activities, such as Containment entry at power, do not meet the intent of HU3 or HA3.</p>	<p>HA3 Access to an ESSENTIAL AREA is Prohibited Due To Release of Toxic, Corrosive, Asphyxiant or Flammable Gases Which Jeopardize Operation of Systems Required to Maintain Safe Operations or Safety Shutdown the Reactor.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <div><p><i>Note</i> If the equipment in the stated area was already inoperable, or out of service, before the event occurred, then this EAL should not be declared as it will have no adverse impact on the ability of the plant to safely operate or safely shutdown beyond that already allowed by Technical Specifications at the time of the event.</p></div> <p>1. Access to an ESSENTIAL AREA is prohibited due to toxic, corrosive, asphyxiant, or flammable gases which jeopardize operation of systems required to maintain safe operations or safely shutdown the reactor.</p>	<p>HU3 Release of Toxic, Corrosive, Asphyxiant, or Flammable Gases Deemed Detrimental to NORMAL PLANT OPERATIONS.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. Toxic, corrosive, asphyxiant or flammable gases in amounts that have or could adversely affect NORMAL PLANT OPERATIONS.</p> <p>OR</p> <p>2. Report by Local, County or State Officials for evacuation or sheltering of site personnel based on an off-site event.</p>	TOXIC / FLAMMABLE GAS																												
H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY																															

APPENDIX C **EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE**

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY	HG2 – Basis: This EAL addresses unanticipated conditions not addressed explicitly elsewhere but that warrant declaration of an emergency because conditions exist which are believed by the Emergency Coordinator to fall under the emergency classification level for General Emergency.	HS3 – Basis: This EAL addresses unanticipated conditions not addressed explicitly elsewhere but that warrant declaration of an emergency because conditions exist which are believed by the Emergency Coordinator to fall under the emergency classification level description for Site Area Emergency.	HA6 – Basis: This EAL addresses unanticipated conditions not addressed explicitly elsewhere but that warrant declaration of an emergency because conditions exist which are believed by the Emergency Coordinator to fall under the Alert emergency classification level.	HU5 – Basis: This EAL addresses unanticipated conditions not addressed explicitly elsewhere but that warrant declaration of an emergency because conditions exist which are believed by the Emergency Coordinator to fall under the Notification of Unusual Event (NOUE) emergency class.

APPENDIX C EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category
<p>HG2 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of General Emergency.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. Other conditions exist which in the judgment of the Emergency Coordinator indicate that 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 ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA PROTECTIVE ACTION GUIDELINE exposure levels off-site for more than the immediate site area.</p> <p>DEFINITION BOX</p> <p>HOSTILE ACTION – An act toward a Nuclear Power Plant (NPP) 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. Other acts that satisfy the overall intent may be included. HOSTILE ACTION should not be construed to include acts of civil disobedience or felonious acts that are not part of a concerted attack on the NPP. Non-terrorism-based EALs should be used to address such activities (i.e., this may include violent acts between individuals in the owner controlled area).</p> <p>IMMINENT – Mitigation actions have been ineffective, additional actions are not expected to be successful, and trended information indicates that the event or condition will occur. Where IMMINENT timeframes are specified, they shall apply.</p> <p>PROTECTIVE ACTION GUIDELINE – Environmental Protection Agency (EPA) Protective Action Guides (PAGs):</p> <ul style="list-style-type: none"> Greater than or equal to 500 mrem Total Effective Dose Equivalent (TEDE) <p>OR</p> <ul style="list-style-type: none"> Greater than or equal to 1000 mrem Committed Dose Equivalent (CDE) <p>[EPIP-08]</p>	<p>HS3 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of Site Area Emergency.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. Other conditions exist which in the judgment of the Emergency Coordinator indicate that 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 PROTECTIVE ACTION GUIDELINE exposure levels beyond the site boundary.</p>	<p>HA6 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of an Alert.</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. Other conditions exist which in the judgment of the Emergency Coordinator indicate that events are in progress or have occurred which involve 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 limited to small fractions of the EPA PROTECTIVE ACTION GUIDELINE exposure levels.</p>	<p>HU5 Other Conditions Existing Which in the Judgment of the Emergency Coordinator Warrant Declaration of a Notification of Unusual Event (NOUE).</p> <p>Operating Mode Applicability: All</p> <p>EAL Values:</p> <p>1. Other conditions exist which in the judgment of the Emergency Coordinator indicate that 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 off-site response or monitoring are expected unless further degradation of safety systems occurs.</p>	<p>DISCRETIONARY</p> <p>H – HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY</p>

APPENDIX C
EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

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APPENDIX C
EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

RECOGNITION CATEGORY E
EVENTS RELATED TO ISFSI

APPENDIX C **EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE**

Rec. Cat.	General Emergency	Site Area Emergency	Alert	Unusual Event
E - EVENTS RELATED TO ISFSI			<div> <div>DEFINITION BOX</div> <p>EXPLOSION – A rapid, violent, unconfined combustion, or catastrophic failure of pressurized/energized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems, or components.</p> <p>FIRE – Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute FIRES. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.</p> <p>PROJECTILE – An object directed toward a Nuclear Power Plant (NPP) that could cause concern for its continued operability, reliability, or personnel safety.</p> </div>	<p>E-HU1 – Basis:</p> <p>A Notification of Unusual Event (NOUE) in this IC is categorized on the basis of the occurrence of an event of sufficient magnitude that a loaded cask CONFINEMENT BOUNDARY is damaged or violated. This includes classification based on a loaded fuel storage cask CONFINEMENT BOUNDARY loss leading to the degradation of the fuel during storage or posing an operational safety problem with respect to its removal from storage as indicated by elevated radiation readings from the loaded fuel storage cask.</p> <p>The results of the ISFSI Safety Analysis Report (SAR) per NUREG 1536 or SAR referenced in the cask's Certificate of Compliance and the related NRC Safety Evaluation Report identify natural phenomena events and accident conditions that could potentially effect the CONFINEMENT BOUNDARY. This EAL addresses a dropped cask, a tipped over cask, EXPLOSION, PROJECTILE damage, FIRE damage or natural phenomena affecting a cask (e.g., seismic event, tornado, etc.).</p>

APPENDIX C **EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE**

General Emergency	Site Area Emergency	Alert	Unusual Event	Recognition Category
<div>DEFINITION BOX</div> <div> <p>CONFINEMENT BOUNDARY – The barrier(s) between areas containing radioactive substances and the environment.</p> </div>			<p>E-HU1 Damage to a loaded cask CONFINEMENT BOUNDARY.</p> <p>Operating Mode Applicability: Not applicable</p> <p>EAL Values:</p> <p>1. Damage to a loaded cask CONFINEMENT BOUNDARY.</p>	<div>ISFSI</div> <div>E – EVENTS RELATED TO ISFSI</div>

APPENDIX C
EMERGENCY CLASSIFICATION COLD CONDITIONS TABLE

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APPENDIX D
THE STATE OF FLORIDA RADIOLOGICAL EMERGENCY MANAGEMENT PLAN

The State of Florida Radiological Emergency Management Plan is maintained on file in the following locations:

1. St. Lucie Unit 1 Document Control Center
2. Technical Support Center
3. Emergency Operations Facility
4. Site Emergency Preparedness Manager

APPENDIX E

TECHNICAL SUPPORT AGREEMENTS

Where a contract or purchase order is in place detailing the services an organization provides in support of the Plant, the contract date or purchase order number will be listed (along with the facility) in place of a Letter of Agreement.

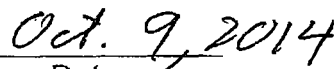
1. Westinghouse Electric (ABB/CE)
2. URS Corporation
3. Institute of Nuclear Power Operations
4. U.S. Coast Guard
5. Florida Highway Patrol
6. St. Lucie County Sheriff's Department
7. St. Lucie County - Ft. Pierce Fire District
8. City of Ft. Pierce - Police Department
9. City of Ft. Pierce - City Manager
10. Martin County Sheriff's Department
11. AREVA NP Inc. (Framatome Technologies)
12. U.S. Department of Energy (Savannah River Operations)
13. U.S. Department of Energy (REAC/TS)
14. Lawnwood Regional Medical Center
15. Martin Memorial Medical Center
16. Bechtel Power Corporation
17. Martin County Fire Rescue (2)

Jeffrey S. Moody
Emergency Planning Coordinator
Florida Power & Light Company
6501 S. Ocean Drive
Jensen Beach, FL 34957

Dear Mr. Moody

I have reviewed the letter of agreement between URS Corporation and Florida Power & Light Company. My signature below confirms that the existing letter of agreement, dated September 12, 2013 remains in effect as written.


Signature


Date



September 12, 2013

Ms. Donna Calabrese
Emergency Preparedness Manager
Florida Power and Light Company
St. Lucie Nuclear Power Plant
6501 S. Ocean Drive
Jensen Beach, FL 34957

Dear Ms. Calabrese;

URS confirms its commitment to support Florida Power and Light in the event of an emergency at the St. Lucie Power Plant. In the event of such an emergency, your point of contact remains:

John DeBruin
Vice President, Nuclear Engineering
803-578-7013 (Office)
857-205-6875 (Mobile)
john.debruin@urs.com (email)

Please note that John Simmons is no longer with URS and should be removed from your contact list. The senior executive at the URS Nuclear Center is John DeBruin.

Sincerely,

John M. DeBruin
Vice President, Nuclear Engineering



3010
September 24, 2012

Emergency Preparedness Manager
Emergency Preparedness
St. Lucie Point Nuclear Plant
6501 South Ocean Drive
Jensen Beach, FL 34957

Dear Emergency Preparedness Manager,

The following information is provided in response to your annual requirement for the United States Coast Guard to provide a new letter of support indicating our ability to meet the requirements of your Radiological Emergency Plan. This letter provides current resource and support capabilities for Coast Guard assets located in the vicinity of the St. Lucie Nuclear Plant. Please note that any emergency assistance that the Coast Guard may provide would be limited by the fact that Coast Guard crews are not equipped or trained for radiological response, and thus, cannot be exposed to radiological contamination. Coast Guard assets will be restricted to activities and geographic locations that are air monitored for radioactive fallout and are certified to be safe without protective clothing or equipment. Consequently, the Coast Guard is unable to act as the primary responder for nuclear power plant disasters.

As requested in your letter, the following information is provided.

1. Administrative point of contact.

- (a) The Seventh Coast Guard District's Contingency Preparedness Officer and administrative point of contact for this issue is Lieutenant Ken Jones. LT Ken Jones' phone number is (305) 415-7156 and email address is Kenneth.C.Jones@uscg.mil.
- (b) Operational response point of contact. Coast Guard Sector Miami, in their capacity as Federal Maritime Security Coordinator for your region, is the First Responder for incidents at your facility. Sector Miami's operational response point of contact for this issue is CDR Darren Caprara at (305) 535-4312.

2. Description of resources and support that can be provided.

- (a) Maritime: The nearest Coast Guard facility to the St. Lucie Nuclear Plant is Coast Guard Station Ft. Pierce. Station Ft. Pierce has one 45 foot Response Boat - Medium (RB-M) with a capability of carrying 24 people max (20 excluding crew), one 25 foot Response Boat - Small (RBS) with a capability of carrying 10 people max (7 excluding crew), and two 33 foot Special Purpose Craft - Law Enforcement (SPC-LE) with a capability of carrying 18 people max (15 excluding crew).

All of these vessels may not be available for response at any given time due to current operations, staffing or maintenance.

- (b) Provided that the Station resources are not engaged in a life threatening emergency or some other operational commitment, the normal vessel response time to the vicinity of the St. Lucie Nuclear Plant is 40 to 70 minutes after notification and depending on the boat deployed. These maritime assets can also enforce Coast Guard imposed safety and security zones to prevent waterside entry into radiological contaminated areas, and to transport response personnel, equipment, and injured personnel.
 - (c) Air: The nearest Coast Guard Air Station to the St. Lucie Nuclear Plant is Air Station Miami. Air Station Miami maintains HH-65 Rescue helicopters that are capable of carrying 2-3 people and of remaining on scene for 90 minutes without refueling. The normal response time for helicopters based at Coast Guard Air Station Miami to St. Lucie Nuclear Plant is approximately 75 minutes after notification. Provided that the area has been certified as safe, and upon official request, these helicopters are available for transportation of personnel and material to assist in the disaster response, as well as for medical evacuation of injured personnel. Additional information about these assets can be found at <http://www.uscg.mil/datasheet/>.
 - (d) Security Support: The Coast Guard Captain of the Port of Miami, located at Sector Miami, may establish a safety or security zone preventing vessel movement into the U.S. navigable waters affected by a disaster. Power plant facility officials must contact Commander, Coast Guard Sector Miami to have a safety or security zone established. A request for a safety or security zone may be made through the Sector Miami Command Center as outlined in paragraph 3 below. Coast Guard vessels may be available to physically prevent vessel entry into contaminated waters, as stipulated in subparagraph 4 (c). However, safety or security zone implementation may only be available by radio broadcast if air monitoring is not available or if the effects and movement of fallout cannot be adequately predicted.
3. Process/procedure to be used to obtain this support and method for information exchange.

Should you need our support, either in the form of asset support or the establishment of a safety or security zone, your initial point of contact is the Sector Miami Command Center in Miami Beach, Florida. The Command Center can be reached at (305) 535-4472. If for any reason you are unable to contact them in the event of an emergency, you should contact the Coast Guard Seventh District Command Center in Miami, Florida. The Seventh District Command Center can be reached at (305) 415-6800. Both Command Centers are staffed 24 hours a day year round.

4. Description of the authorities, responsibilities, and limits on Coast Guard actions.

- (a) Under Title 14 U.S. Code Section 88, the Coast Guard has the authority to render aid to distressed persons, vessels, and aircraft on the high seas and in the navigable waters of the United States. This includes the authority to perform any acts necessary to rescue and aid persons and protect and save property.
- (b) Under 14 U.S. Code Section 89, the Coast Guard may enforce all Federal laws on vessels and waters over which the United States has jurisdiction. Further, under 14 U.S. Code Section 141, when so requested by proper authority, the Coast Guard may utilize its personnel and facilities to assist federal, state, and local government authorities to perform any activity for which Coast Guard personnel and facilities are especially qualified. Among other things, this may include transportation of personnel and material to assist in disasters or response to other emergency situations.
- (c) Under the Ports and Waterways Safety Act, 33 U.S. Code Section 1221, 33 CFR 165, the Magnuson Act, 50 U.S. Code Section 191, and the Coast Guard's regulatory authority under 33 CFR 6, the Coast Guard has the authority to implement and enforce safety and security zones.
- (d) Any emergency assistance that the Coast Guard may provide would be limited by the fact that Coast Guard crews are not equipped or trained for radiological response, and thus, cannot be exposed to radiological contamination. Coast Guard assets will be restricted to activities and geographic locations that are air monitored for radioactive fallout and are certified to be safe without protective clothing or equipment.

5. Any other information pertinent to your organization's emergency response capabilities.

The Coast Guard Deployable Operation Group (DOG) provides specialized force packages which can be obtained utilizing the same requesting procedures mentioned in paragraph 3. The DOG's specialized emergency response units are the National Strike Force (NSF) and Maritime Safety and Security Team (MSST). The NSF is capable of providing highly specialized personnel and equipment to facilitate preparedness and response to oil and hazardous substance pollution incidents in order to protect public health and the environment. The MSST has rapid response elements (waterborne and landside) to provide waterside security and landside force protection, safety and security zones, entry control points, canine, divers, and underwater remote vehicle.

6. Should you desire specific details of Coast Guard capabilities please contact Lieutenant Ken Jones at (305) 415-7156 and email address is Kenneth.C.Jones@uscg.mil

Sincerely,



JOHN P. SLAUGHTER
Captain, U.S. Coast Guard
Chief, Planning and Force Readiness Division
Seventh Coast Guard District
By direction

Copy: Federal Emergency Management Agency Region IV
St. Lucie County Public Safety Office
Commander, Seventh Coast Guard District (drm), (dp), (dx), (dl)
Commanding Officer, Coast Guard Air Station Miami
Commander, Coast Guard Sector Miami
Commanding Officer, Station Fort Pierce

Julie L. Jones
Executive Director

2900 Apalachee Parkway
Tallahassee, Florida 32399-0500
www.flhsmv.gov

A SAFER
FLORIDA
HIGHWAY SAFETY AND MOTOR VEHICLES

Rick Scott
Governor

Pam Bondi
Attorney General

Jeff Atwal
Chief Financial Officer

Adam Putnam
Commissioner of Agriculture

August 28, 2013

D.M. Calabrese
Emergency Preparedness Manager
6501 S. Ocean Drive
Jensen Beach, FL 34957

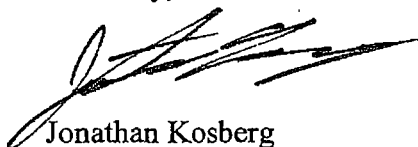
RE: St. Lucie Nuclear Plan Emergency Plan
Letter of Support

Dear Ms. Calabrese:

My office has received your letter dated August 13, 2013, in which your office has requested an updated Letter of Support for the St. Lucie Plant. The Florida Highway Patrol remains in agreement with FHP Policy 16.01, dated September 21, 2012 and with applicable sections of the Florida Mutual Aid Plan.

If you have any questions regarding the Policy, please contact Captain Gary Howze at (850) 617-2305.

Sincerely,



Jonathan Kosberg
Chief, Bureau of Purchasing and Contracts
Division of Administrative Services

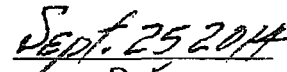
JK/jm

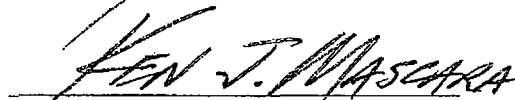
Jeffrey S. Moody
Emergency Planning Coordinator
Florida Power & Light Company
6501 S. Ocean Drive
Jensen Beach, FL 34957

Dear Mr. Moody

I have reviewed the letter of agreement between St. Lucie County Sheriff's Office and Florida Power & Light Company. My signature below confirms that the existing letter of agreement, dated August 22, 2013, remains in effect as written.


Signature

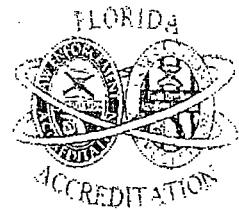

Date


Print Name



Sheriff
KEN J. MASCARA

Telephone: (772) 462-3200 • Fax: (772) 489-5851
4700 West Midway Road • Fort Pierce, Florida 34981



August 22, 2013

Mr. Jeffrey S. Moody
Emergency Preparedness
6501 South Ocean Drive EP/PSL
Jensen Beach, FL 34957

Dear Mr. Moody:

In the event of a radiological or security emergency at the St. Lucie Power Plant on Hutchinson Island, the St. Lucie County Sheriff's Office will render response as quickly and safely as possible. The Office's authorized strength is currently 270 in various law enforcement assignments and approximately 20 reserve deputies. Equipment includes 238 marked patrol vehicles, 126 unmarked patrol vehicles and 15 vehicles equipped with four-wheel drive. We have four boats, three OH58 helicopters and one armored personnel carrier.

First responder personnel are trained and equipped to provide initial containment of an incident, traffic control, and site security. Support teams include Special Weapons and Tactics, Bomb Team, Crises Negotiations Team, Dive Team, Aviation Unit and Marine Unit. A mobile command post coordinates the activities of the support team.

Communications equipment is mounted in all vehicles, vessels, and aircraft. Personnel are issued hand-held radios. Our personnel are trained in radiological monitoring, traffic control and first aid.

It is important to note that not all personnel will be available immediately. It will take some time for notification to go out for off-duty personnel to respond.

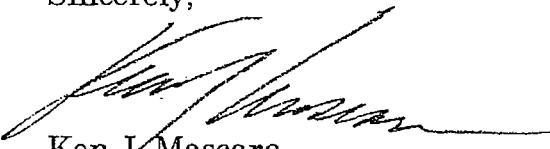
An initial request for any emergency or law enforcement call should be made to the 911 Emergency Operations Center by calling 911, or if appropriate, using the hot ring down phone from the Plant to the 911 Center. Secondary points of contact have been established through Plant Security personnel directly to our Director of Law Enforcement, SWAT, and Bomb Team Commanders.

Mr. Jeffrey S. Moody
August 22, 2013
Page 2

The Sheriff's Office operates under the Incident Command System. Therefore, the first responder would be the incident commander until relieved by higher authority.

Any questions regarding this matter, please contact Major David R. Thompson, Director of Law Enforcement at 772-462-3257.

Sincerely,



Ken J. Mascara
Sheriff

dd

cc: D.M. Calabrese
Emergency Preparedness Manager
St. Lucie Plant

Jeffrey S. Moody
Emergency Planning Coordinator
Florida Power & Light Company
6501 S. Ocean Drive
Jensen Beach, FL 34957

Dear Mr. Moody

I have reviewed the letter of agreement between St. Lucie County Fire District and Florida Power & Light Company. My signature below confirms that the existing letter of agreement, dated August 26, 2013, remains in effect as written.


Signature

9-26-14
Date

RONALD PERISH
Print Name

ST. LUCIE COUNTY FIRE DISTRICT
Ronald R. Parrish, MPA, CFO, EFO
Fire Chief



Telephone: (772) 621-3312
Fax: (772) 621-3600
E-mail: rparrish@slcfd.org

August 26, 2013

Ms. D.M. Calabrese
Emergency Preparedness Manager
St. Lucie Nuclear Plant
6501 South Ocean Drive
Jensen Beach, FL 34957

Dear Ms. Calabrese:

As previously stated, the St. Lucie County Fire District currently attests in the event of a nuclear power reactor incident that:

1. The initial administrative point of contact to obtain assistance and support will be Assistant Fire Chief Carlos Duran (772) 621- 3313. Emergency response will be the 9-1-1 system that is responsible to initiate needed alarm responses.
2. On the first response, two pumpers, one Quint, and one ambulance with their Respective crews and a Battalion Chief and Field Training Officer will be dispatched. Additional alarm responses would be available as the needs dictate. Currently the Fire District is staffed with 379 Firefighters. A current list of apparatus is attached (see Appendix A) that outlines the capacities and levels of care for responding units.
3. Other specialized equipment and capabilities include hazardous material response vehicle, foam and foam applicators, mobile SCBA refill capability, ventilation equipment, reflective suits for proximity but not for entry into pooled liquids, lighting equipment with portable generators, monitor nozzles, and specialized crews to perform required duties.

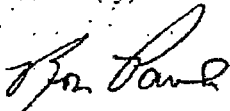
"Our Family Serving Yours"

5160 N.W. Milner Drive, Port St. Lucie, Florida 34983-3392
Telephone: (772) 621-3400 • Fax: (772) 621-3600
www.slcfd.com

4. The extent of services that this agency can provide if such an emergency occurs will include fire protection and suppression and investigation, as well as emergency medical care to the level of Advanced Life Support with transport capabilities. Extrication, search and rescue (including confined space), and hazardous material equipment management are also special services that can be provided. Under most anticipated conditions, within 2 hours, The St. Lucie Fire District is able to provide high volume (>200gpm) monitor nozzles and associated equipment to be supplied from ground monitor(s) and/or ground ladders. Should it become necessary, the St. Lucie County Fire District will provide assistance for cooling the Spent Fuel Pool during an emergency incident. The St. Lucie County Fire District will also be able to assist in minor mitigation involving the Spent Fuel Pool by spraying water from a remote location. These actions will occur in accordance with the EPA protective action guidelines for emergency workers, by using fire rescue equipment to spray any Safely accessible opening of the structure(s). All St. Lucie County Fire District actions are subject to available resources. All personnel responding will have the appropriate personal protective equipment for the incident.
5. Both the St. Lucie County Fire District and the St. Lucie Nuclear Power Plant recognize the use of the National Incident Management System (NIMS) and support the use of the "Unified Command" concept should a large scale fire emergency occur. An Incident Command System would be set up with a designated Incident Commander (IC) and establishment of command and the Command Post site will be established based on the conditions of the incident. The IC will be in charge of coordinating response teams and communicating with subordinate commanders and supervisors at the scene. This individual would be responsible for information exchange between the Fire District and Florida Power & Light officials.
6. Each apparatus is equipped with two-way radio capability and the Fire District uses "plain talk" message communications eliminating the need to know specific coded transmissions. In addition, each ambulance has a medical communication channel for direct radio communication with medical command at each area hospital.

We stand ready to respond to any emergency 24 hours a day, 7 days a week, should one arise. However, our response could be limited by available manpower, equipment or the existence of other current emergencies in progress.

Sincerely,



Ron Parrish
Fire Chief



St. Lucie Fire District

2013 Vehicle Inventory

(3 pages)

Unit	Station	P.C.	TAG #	V.I.N.	Year
E-1	1	7025	SYC545	4P1CJ01A0AA011018	2010
E-3	3	6756	S YB103	4P1CE01A97A007742	2007
E-4	4	6359	S40508	4P1CE01A46A006450	2006
E-5	5	6358	S40509	4P1CE01A66A006451	2006
E-6	6	6099	S39290	4P1CE01A05A005472	2005
E-7	7	6357	S40512	4P1CE01A66A006434	2006
E-10	10	6754	S YB105	4P1CE01A27A007744	2007
E-11	11	5762	S36142	4P1CT02U03A002812	2003
E-12	12	6356	S40511	4P1CE01A86A006435	2006
E-13	13	6098	S39291	4P1CE01A25A005473	2005
E-14	14	6755	S YB104	4P1CE01A07A007743	2007
E-15	15	6364	S40510	4P1CE01A46A006433	2006
E-16	16	5761	S36143	4P1CT02U93A002811	2003
E-17	17	6757	S YA566	4P1CE01A77A007741	2007
E-30	SPARE ADMIN	4833	C81699	4ENFAAA81V1007739	1997
E-31	SPARE Turn Key 1	4832	C81760	4ENFAAA88V1007740	1997
E-32	SPARE OLD 2	507	S13127	1P9CA01D8HA040401	1987
E-34	SPARE ADMIN	5152	S29716	4P1CT02U1XA001011	1999
TOTAL 18					
ARFF-1	4	6367	S40504	10TBKAK107S090467	2006
TOTAL 1					
Q-1	1	6738	S38402	4P1CE01A97A007269	2007
Q-2	2	4830	C81700	4ENGAAA8XV1007738	1997
Q-8	8	6132	S38364	4P1CE01A65A005461	2005
Q-9	9	4831	C81758	4EN3AAA89T1006298	1997
Q-12	12	5151	S29715	4P1CT02S1XA000960	1999
Q-30	ADMIN	5283	S29239	4P1CT02S3YA000719	2000
L-14	14	6787	SYB111	4P1CV01E78A008151	2008
TOTAL 7					
TNK-6	6	5150	S29720	1FV6JLCB8XHA62092	1999
TNK-7	7	5768	S36895	2NKMZH28X43M899032	2002
TNK-10 (old 13)	10	5149	S29717	1FJ6JLCB6XHA62091	1999
TND-11	11	FORESTRY	ACS0029120	10T2F3D0XL1039272	1989
TOTAL 4					
B-1	1	6093	S38362	1FDAF57P65EC27637	2005
B-3	3	6016	S38356	1FDAF57P44ED93055	2004
B-4	4	5287	S29238	1FDAF57F8YED93606	2000
B-5	5	6015	S38355	1FDAF57P04ED64507	2004
B-6	6	6014	S37092	1FDAF57P24ED64508	2004
B-7	7	6345	S40506	1FDAF57P46EC24026	2006
B-11	11	6344	S40505	1FDAF57P26EC24025	2006
B-12	12	5285	S29236	1FDAF57F1YED93608	2000
B-13	13	5760	S36144	1FDAF57F53EA36733	2003
B-14	14	6864	SYC054	1FDAF57R88ED38454	2008
B-15	15	6346	S40513	1FDAF57P67EA84918	2006
B-16	16	5286	S29237	1FDAF57FXIED93607	2000
B-17	17	6863	SYC053	1FDAF57RX8ED38455	2008
B-30 / PUB ED	ADMIN	5147	S29718	1FDAF57FXEAB3617	1999
TOTAL 14					
SP. OPS, 14	14	6013	S38358	4P1CE01A94A004335 NEW	2004

Unit	Station	P.C.	TAG #	V.I.N.	Year
SP. OPS. 17 (old 10)	17	6539	SYA557	4P1CE01A66A006482	2006
CASCADE	CENTRAL	3947	C27532	1GBM7H1J8MJ104176	1991
TOTAL 3					
COMMAND VEH	SHOP	SO# 006087	SHERIFF 51260	1BDJNCP733F212206	2003
TOTAL 1					
R-1	1	6851	SYC052	1FVACWDJ88HZ64901	2008
R-2	2	7024	SYC542	1FVACWCS55HN93153	2005
R-3	3	6843	SYC049	1FVACWDJ38HZ64899	2008
R-4	4	6670	S38400	1FVACWCS87HY22976	2007
R-5	5	6672	S38398	1FVACWCSX7HY22977	2007
R-6	6	6855	SYC048	1FVACWDJ78HZ03670	2008
R-7	7	6166	S39298	1FVACWCS86HW25465	2006
R-8	8	7022	SYC544	1FVACWCS35HN93152	2005
R-9	9	7023	SYC543	1FVACWCS75HN93154	2005
R-10	10	7210	SYC549	1FVACWDT0CHBW2503	2012
R-11	11	5833	S36899	1FVACWCS93HL93034	2003
R-12	12	5831	S36902	1FVACWCS43HL93037	2003
R-13	13	5834	S36900	1FVACWCS63HL93038	2003
R-14	14	7060	SYCF48	1FVACWDT2CHBW2504	2012
R-15	15	6671	S38399	1FVACWCS17HY22978	2007
R-16 old-3	16	6852	SYC051	1FVACWDJ08HZ03869	2008
R-17	14	6844	SYC050	1FVACWDJ68HZ64900	2008
R-18 SPARE	ADMIN	5832	S36901	1FVACWCS23HL93036	2003
R-19 spare	ADMIN	5626	S35949	1HTSLABMX2H409037	2001
R-20 spare	ADMIN	6168	S39297	1FVACWCS16HW25467	2006
R-21		6167	S39296	1FVACWCSX6HW25466	2006
R-22 SPARE	Turn Key 1	5624	S36135	1HTSLABM32H409039	2001
R-23 BARIATRIC	3	5625	S35947	1HTSLABM12H409038	2001
R-24 SPARE	ADMIN	5830	S36898	1FVACWCS03HL93035	2003
R-26					
R-27					
TOTAL 24					
BAT 1	1	6777	SYB110	1FMFU16508LA44089	2008
BAT 3	3	6778	SYB109	1FMFU16598LA44088	2008
BAT 1A	4	6779	SYB108	1FMFU16578LA44087	2008
DC-2	17	6639	SYA559	1FTRW14W67KC36841	2007
TOTAL 4					
F.T.O. 1	4	6136	S39294	1FTRW14W66FA67895	2006
F.T.O. 2	6	6642	SYA561	1FTRW14W67KC36838	2007
F.T.O. 3	16	6774	SYB107	1FTRW14W38FA75066	2008
F.T.O. 4	5	6135	S39292	1FTRW14W46FA67894	2006
TOTAL 4					
S-01	SHOP	4893	S29709	1GDGC24R9WZ533975	1998
S-02	SHOP	FORESTRY	ACS10390	1GCGD34J6GF378175	1986
TOTAL 2					
MAINT-1	1	7049	SYC546	1FTNE2EW4BDA51769	2011
MAINT-2	1	5966	S37091	1FCJE39L64HA57654	2004
MAINT-3	1	6222	S39299	1FCJE39L06DA28385	2006
		7414	CYE673	1FDUE5GY2DE686403	2013
Yard maintenance	1	5574	C194915	1FTRX18W71NB28192	2001
TOTAL 4					
	PURCH	6636	SYA562	1FTSW21518EA08135	2008

Unit	Station	P.C.	TAG #	V.I.N.	Year
TOTAL 1					
IT-1	IT DEPT	5368	S29246	4UZA4FF44XCA93859	1999
TOTAL 1					
C-56 fire prev	ADMIN	5555	S35942	2FAFP73W21X155902	2001
C-58 fm8	8	5557	S35941	2FAFP73W01X155901	2001
C-60 fm9	9	5551	S36680	1FMRU16W32LA27896	2002
C-61 fire prev	ADMIN	5680	S36139	1FMZU72E32UC51079	2002
C-62	ADMIN	5893	S36679	1FMPU16L04LA96383	2004
C-63	ADMIN	5896	S37083	1FMZU73W64ZA76310	2004
C-64	ADMIN	5897	S37085	1FMZU73W84ZA76311	2004
C-65	ADMIN	5898	S37084	1FMZU73WX4ZA76309	2004
C-66 fire prev	ADMIN	6133	S39295	1FTRW14W06FA67892	2006
C-67	ADMIN	6134	S39293	1FTRW14W26FA67893	2006
C-72	ADMIN	6638	SYA564	1FTRW14W87KC36842	2007
C-74 fire prev	ADMIN	6640	SYA560	1FTRW14W47KC36840	2007
C-75 fire prev	ADMIN	6641	SYA558	1FTRW14W87KC36839	2007
C-78 fire prev	ADMIN	6775	SYB106	1FTRW14W18FA75065	2008
TOTAL 15					
SP-1	SHOP	5681	S36140	1FTRX18W72NB39498	2002
SP-2	SHOP	6637	SYA563	1FMEU738179B07559	2007
SP-3	ADMIN	5556	S35940	2FAFP73W91X155900	2001
SP-4	SHOP	5895	S37087	1FMNU41L64EC36263	2004
SP-5	SHOP	6038	S38959	1FTRW14W95KE26937	2005
SP-6	EXC. SHOP	5894	S37086	1FMNU41L84EC36264	2004
TOTAL 6					
SPBAT SPARE	EXC. SHOP	6039	S38961	1FMNU41L65ED24022	2005
EXT. SPARE	P.U. SHOP	6037	S38960	1FTRW14W05KE26938	2005
TOTAL 2					
G-59 marine	EXPL. ADMIN	5649	C201192	1FMZ2072EX2ZB79090	2002
RESCUE/BOAT & MOTOR		7007		HOLLISTJZ11ZK61810	2010
BOAT TRAILER	ADMIN	SAME	SYC549	4J2BDMR15A11010832010	2010
TOTAL 3					
EVENT TRAILER	ADMIN	5707	S36141	1WC200L2734047722	2003
DUMP TRAILER	NOT SET	6365	S40507	4Y3US142155016119	2005
FLAT TRAILER	NOT SET			HOGAN BROS	1994
COVERED TR.	ADMIN		C124189	16HPB1424VHO38955	1996
PUB ED TRAILER	ADMIN	6786	SYC047	1SSTT35TX811SS238	2008
TOTAL 5					
SD-1 GATOR	ADMIN	5305		W006X4X048057	
SD-2 TORO 14	14	5841		230000248	2003
SD-3 TORO 15	ADMIN	6071		260000255	2005
FORK LIFT	SHOP				2006
TOTAL 4					
				Total Vehicles	122

POLICE

FORT PIERCE



EMERGENCY LETTER OF SUPPORT FOR FLORIDA POWER AND LIGHT COMPANY

- ADMINISTRATIVE POINT OF CONTACT (Emergency Management Coordinators)
 - 1. Acting Deputy Chief Caleb Gillette
Telephone (772) 467-6802
Cellular (772) 370-6146
 - 2. Acting Deputy Chief Christopher Bender
Telephone (772) 467-6940
Cellular (772) 370-0097
- RESOURCES AND SUPPORT
 - 1. Traffic Control
 - 2. Security for Jaycee Park
 - 3. Marked police units (number to be determined)
 - 4. Multi-Agency Mobile Command Post (in cooperation with St. Lucie County Sheriff's Office and Fire Department)
- PROCEDURE
 - 1. Notification of administrative contacts
 - 2. Implementation of city's emergency plan
 - a) Road block of A1A South of Ocean Village to prohibit travel on A1A on to emergency area.
 - b) Information exchange provided by command post personnel from Florida Power & Light Company and Fort Pierce Police Department.
 - c) Radiological detection devices to be provided by Florida Power & Light Company
- LINE OF AUTHORITY RESPONSIBILITY, ETC.
 - 1. Evacuation of citizens;
 - 2. Prevention of trespassers or other unauthorized persons.

Any and all other aspects of this emergency situation is addressed in the Emergency Management Plan.


Frank J. Amandro
Interim Chief of Police

Date

12/03/14


For Florida Power & Light Company

Date

12/10/14

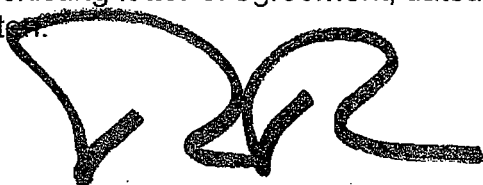
920 South U.S. Highway #1 • Fort Pierce, FL 34950 • 772.467.6800 • www.fppd.org

Protecting Our Community

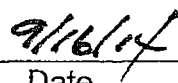
Jeffrey S. Moody
Emergency Planning Coordinator
Florida Power & Light Company
6501 S. Ocean Drive
Jensen Beach, FL 34957

Dear Mr. Moody

I have reviewed the letter of agreement between Ft Pierce Office of the City Manager and Florida Power & Light Company. My signature below confirms that the existing letter of agreement, dated August 22, 2013 remains in effect as written.



Signature



Date

CITY OF FORT PIERCE *Florida*



OFFICE OF THE CITY MANAGER
CITY HALL, 100 NORTH U.S. 1
P.O. BOX 1480
FORT PIERCE, FLORIDA 34954-1480

TEL (772) 467-3031
FAX (772) 489-8042
www.cityoffortpierce.com

August 22, 2013

Ms. D.M. Calabrese
Emergency Preparedness Manager, St. Lucie Nuclear Plant
Florida Power & Light Company
6501 South Ocean Drive
Jensen Beach, FL 34957

Dear Ms. Calabrese:

I am in receipt of your letter requesting an updated letter of support regarding the use of Jaycee Park.

This correspondence confirms FPL's authorization to use Jaycee Park on South Beach for emergency parking in the event of an emergency at the St. Lucie Nuclear Power Plant. It is understood and agreed that Florida Power & Light will repair or pay for the repair of any damage to the grass, park facilities or paved areas resulting from your emergency use of this park.

Your office has requested the name of the City's administrative point of contact. This will be the Public Works Manager, Mike Reals. He can be reached at 772-467-3811, or 772-579-6884. His mailing address is Post Office Box 1480, Fort Pierce, FL 34954-1480.

Sincerely,

Robert J. Bradshaw
City Manager

RJB:jdr

c: Mike Reals, Public Works Manager
R. Sean Baldwin, Chief of Police
John Andrews, City Engineer
Robert V. Schwerer, City Attorney

William D. Snyder

Sheriff

(772) 220-7000



Office of the Sheriff

Martin County, Florida

www.sheriff.martin.fl.us

September 25, 2014

Mr. E.S. Katzman
Emergency Preparedness Manager
Florida Power & Light Company - St. Lucie Plant
6501 South Ocean Drive
Jensen Beach, Florida 34957

Dear Mr. Katzman:

The administrative point of contact for all Martin County Sheriff's Office emergency management response requests is Stephen Leighton, Director of Community Programs and Emergency Management. His direct contact information is as follows:

Director Stephen Leighton
Community Programs & Emergency Management
800 SE Monterey Road
Stuart, Florida 34994
(772) 220-7025 Office
(772) 260-3345 Cell

The resources and support available for law enforcement functions, including traffic and crowd control, would be all available personnel, vehicles and communications (vehicle and portable). In the event these resources are needed, the procedure would be to contact Director Leighton.

Our authority would be within Martin County, unless we are requested to assist St. Lucie County under our Mutual Aid Agreement. The commitment for these resources would be contingent upon the law enforcement demands of Martin County during any ongoing situation.

Sincerely,

A handwritten signature in cursive script, appearing to read "WDS", written over a horizontal line.

William D. Snyder, Sheriff

WDS/dlg

MAILING ADDRESS
800 SE MONTEREY ROAD
STUART, FL 34994-4507



CIVIL DEPARTMENT ADDRESS
100 EAST OCEAN BOULEVARD
STUART, FL 34994



ADMINISTRATIVE & JAIL COMPLEX
800 SE MONTEREY ROAD
STUART, FL 34994-4507



October 14, 2014
AREVA-14-03614

Mr. Jeffrey S. Moody
Emergency Planning Coordinator
Florida Power & Light
St. Lucie Plant
6501 South Ocean Drive
Jensen Beach, FL 34957

Subject: St. Lucie Nuclear Plant Emergency Plan Letter of Agreement
Reference: Katzman to Page Letter – September 10, 2014

Dear Mr. Moody:

In response to the reference letter, I would like to take this opportunity to confirm that AREVA commits to provide assistance to Florida Power & Light (FPL) in the event of an emergency at your St. Lucie Nuclear Plants. Services will be provided by AREVA to FPL upon request and authorization by an official representative of FPL in accordance with our existing Outage Services Agreement.

The designated point of contact at AREVA is Skip Hudson, Josh Harrison and Mark Lukowski as first and second alternates respectively. Skip is located in Singer Island, Florida while Josh and Mark are located in the AREVA Inc. office in Lynchburg, Virginia. Our contact numbers are listed below.

		<u>Office</u>	<u>Home</u>	<u>Cell</u>
Primary Contact	C.J. Hudson	(561) 841-9174	(561) 845-5271	(561) 371-3583
First Alternate	Josh Harrison	(434) 832-3917	(434) 352-4471	(434) 485-4520
Second Alternate	Mark Lukowski	(434) 832-2645	(434) 525-3491	(434) 841-4203

AREVA can provide engineering, technical support, and field services to assist FPL in the management and control of an emergency. Any request to an AREVA point of contact from designated FPL officials will be responded to as expeditiously as practical to support the FPL needs.

Should you require any further clarification, please contact me at (434) 832-3917.

Sincerely,

A handwritten signature in black ink, appearing to read 'Josh Harrison'.

Josh Harrison
Project Manager

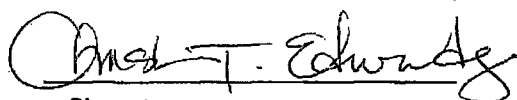
CC: C.J. Hudson
M. Lukowski
T1.2/A012P11576

AREVA INC.

Jeffrey S. Moody
Emergency Planning Coordinator
Florida Power & Light Company
6501 S. Ocean Drive
Jensen Beach, FL 34957

Dear Mr. Moody

I have reviewed the letter of agreement between the Department of Energy/National Nuclear Security Administration, Radiological Assistance Program and Florida Power & Light Company. My signature below confirms that the existing letter of agreement, dated September 29, 2011, remains in effect as written.

 9/26/2014
Signature Date

Christina T. Edwards
Print Name



**National Nuclear Security
Administration**

Savannah River Site Office
P.O. Box A
Aiken, South Carolina 29802

September 29, 2011

Mr. D. M. Calabrese
Emergency Preparedness Manager
St. Lucie Plant
Florida Power & Light Company
6501 South Ocean Drive
Jensen Beach, FL 34957

Dear Mr. Calabrese:

Subject: Department of Energy, National Nuclear Security Administration (DOE/NNSA) Letter of Agreement for Emergency Support

Assurance is hereby given that the DOE/NNSA will respond to requests for radiological assistance from licensees and Federal and State agencies involved in or cognizant of an incident believed to involve source, by-product, or other special nuclear material as defined by the Atomic Energy Act of 1954, as amended or other ionizing radiation sources. Assistance as indicated above would be made available to the Florida Power & Light Company with respect to incidents occurring at its St. Lucie Plant upon request and in consonance with response activities conducted by State, local, and private industry emergency response personnel.

Unless DOE/NNSA or a DOE/NNSA contractor is responsible for the activity, ionizing radiation source, or radioactive material involved in the incident, DOE/NNSA radiological assistance will be limited to advice, detection and identification of radioactive materials, and/or monitoring and assessment actions essential for the control of the immediate hazards to health and safety. DOE/NNSA radiological assistance will be terminated when it is no longer needed or the necessary assistance is available from State, local, or commercial services. Therefore, responsibility for post-accident recovery, including further actions for the protection of individuals and the public health and safety, should be assumed by the appropriate government agency or private authority as soon as emergency conditions are stabilized.

Requests for DOE/NNSA radiological assistance may be directed to the Savannah River Site Operations Center at the 24-hour emergency assistance telephone number, (803) 725-3333. Questions regarding the DOE/NNSA Radiological Assistance Program may be directed to me at (803) 952-6613.

Sincerely,

Christina T. Edwards
Regional Response Coordinator
DOE Region 3

COR-SRSOMO-9.13.2011-377697

cc: Jeffrey Moody, FP&L



Department of Energy

ORNL Site Office
P.O. Box 2008
Oak Ridge, Tennessee 37831-6269

October 7, 2014

Mr. Jeffrey S. Moody
Emergency Planning Coordinator
Florida Power and Light Company
6501 S. Ocean Drive
Jensen Beach, Florida 34957

Dear Mr. Moody:

LETTER OF AGREEMENT – RADIATION EMERGENCY ASSISTANCE CENTER/TRAINING SITE (REAC/TS) SUPPORT

Please reference a letter dated September 10, 2013, from D. M. Calabrese, requesting that the Department of Energy (DOE) REAC/TS facilities and team be available to provide back-up capability and assistance to the Florida Power and Light Company in the event of a radiological emergency at the St. Lucie Plant. This response constitutes our agreement to provide this service upon your request. The agreement remains in-effect until terminated in writing by either party.

We wish to remind you that our REAC/TS facilities in the Oak Ridge Institute for Science and Education (ORISE) are government controlled and operated by the Oak Ridge Associated Universities under contract with DOE. Therefore, REAC/TS is prohibited from competing with commercial firms that can provide radiological emergency services. Only if the magnitude or uniqueness of a radiological emergency exceeds your in-house and commercially available capabilities would REAC/TS be authorized to provide back-up services.

Since these facilities are government controlled, no fee or retainer is required to assure the availability of back-up services by REAC/TS. However, if you utilize the services of REAC/TS, we should expect to recover those costs that could reasonably be related to handling such an incident, including all charges billed to DOE or ORISE by hospitals and physicians. Information concerning the REAC/TS facilities, staff, services available, and procedures for seeking REAC/TS assistance can be obtained by direct contact with the REAC/TS Director, Dr. Albert L. Wiley, ORISE, Post Office Box 117, Oak Ridge, Tennessee 37831, or telephone number (865) 576-3131.

Sincerely,

A handwritten signature in cursive script, reading "Michele G. Branton".

Michele G. Branton
Contracting Officer's Representative

Enclosure

Mr. Jeffrey S. Moody

-2-

October 7, 2014

cc:

Matthew P. Albert, ORISE

Albert L. Wiley, ORISE

Jeffrey S. Moody
Emergency Planning Coordinator
Florida Power & Light Company
6501 S. Ocean Drive
Jensen Beach, FL 34957

Dear Mr. Moody

I have reviewed the letter of agreement between Bechtel Power Company and Florida Power & Light Company. My signature below confirms that the existing letter of agreement, dated December 5, 2013, remains in effect as written.

S.D. Roth

Signature

9/22/14

Date

Stephen D. Roth

Print Name



December 5, 2013

Emergency Preparedness Department
St. Lucie Plant
Florida Power & Light Company
6501 S. Ocean Drive
Jensen Beach, FL 34957
Attention: Donna Calabrese

Subject: Emergency Response Assistance
St. Lucie Nuclear Plant

Emergency Preparedness Manager:

Enclosed is the latest Bechtel emergency contact list for your use.

If you have any questions or comments on this information, please contact me at 301-228-6245 or sdrouth@bechtel.com.

Sincerely,

S.D. Routh

Stephen D. Routh
Project Manager

SR:mc

Enclosure: List of Telephone Numbers, Bechtel Key Response Team Members (1 page total)

Action Summary

Response Required: No

**List of Telephone Numbers
Bechtel Key Response Team Members**

December 5, 2013

Home Office (Frederick, Maryland) Representatives

Stephen Routh
Project Manager, Nuclear
301-228-6245 (Office), 240-344-0482 (Cell), 301-253-6817 (Home)

Basant Dilodare
Project Manager, Nuclear
301-228-6236 (Office), 240-344-0471 (Cell), 301-694-9358 (Home)

Edward Sherow
Engineering Manager, Nuclear
301-228-8721 (Office), 240-357-4986 (Cell), 301-865-3027 (Home)


St. Lucie Site Representative

None

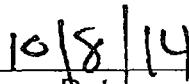
Jeffrey S. Moody
Emergency Planning Coordinator
Florida Power & Light Company
6501 S. Ocean Drive
Jensen Beach, FL 34957

Dear Mr. Moody

I have reviewed the letter of agreement between Martin County Fire Rescue and Florida Power & Light Company. My signature below confirms that the existing letter of agreement, dated August 16, 2012, remains in effect as written.



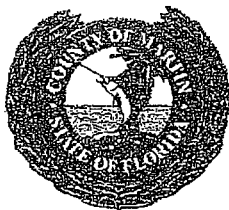
Signature



Date



Print Name



MARTIN COUNTY
BOARD OF COUNTY COMMISSIONERS
Fire Rescue Administration
800 S.E. MONTEREY ROAD • STUART, FL 34994

Telephone: 772-288-5710
Fax: 772-221-1457
Email: jferrara@martin.fl.us

DOUG SMITH
Commissioner, District 1

ED FIELDING
Commissioner, District 2

PATRICK HAYES
Commissioner, District 3

SARAH HEARD
Commissioner, District 4

EDWARD CIAMPI
Commissioner, District 5

TARYN KRYZDA, CPM
County Administrator

STEPHEN FRY
County Attorney

August 16, 2012

Ms. Donna M. Calabrese
Emergency Preparedness Manager
St. Lucie Plant, Florida Power & Light
6501 S. Ocean Drive
Jensen Beach, Florida 34957

Dear Ms. Calabrese,

Please accept this letter as a revised Letter of Agreement between Martin County Fire Rescue and Florida Power & Light Company.

Administrative point of contact is:

Joseph V. Ferrara, MPA
Fire Rescue Chief
800 SE Monterey Road
Stuart, Florida 34994
772-288-5710

The resources and support that Martin County Fire Rescue can provide are:
Fire Rescue, Emergency Medical Services, Hazardous Materials Response Team and
Technical Rescue Team.

In those instances where the needs or the patient(s) exceed our capabilities,
arrangements will be made to obtain appropriate transport services.

All capabilities can be arranged through the St. Lucie 911 system or the State-wide
"ring down system". We also agree to participate in periodic drills and evaluations
conducted in association with the St. Lucie Nuclear Power Plant.

Sincerely,

Joseph V. Ferrara, MPA
Fire Rescue Chief

JVF/mlb

cc: Taryn Kryzda, County Administrator
Debra McCaughey, Emergency Management Agency Director
Daniel J. Wouters, Division Chief, Operations
Jon O. Belding, Division Chief, Administration
Jeffery S. Moody, FP&L, Emergency Planning Coordinator

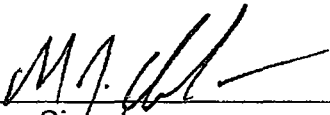
TELEPHONE
772-288-5434

WEB ADDRESS
<http://www.martin.fl.us>

Jeffrey S. Moody
Emergency Planning Coordinator
Florida Power & Light Company
6501 S. Ocean Drive
Jensen Beach, FL 34957

Dear Mr. Moody

I have reviewed the letter of agreement between Martin County Department of Emergency Services and Florida Power & Light Company. My signature below confirms that the existing letter of agreement, dated August 16, 2012, remains in effect as written.


Signature

18 Sept 2014
Date

CHRISTOPHER J. CHURCHILL
Print Name



MARTIN COUNTY
BOARD OF COUNTY COMMISSIONERS
Fire Rescue Administration
800 S.E. MONTEREY ROAD • STUART, FL 34994

DOUG SMITH
Commissioner, District 1

ED FIELDING
Commissioner, District 2

PATRICK HAYES
Commissioner, District 3

SARAH HEARD
Commissioner, District 4

EDWARD CIAMPI
Commissioner, District 5

TARYN KRYZDA, CPM
County Administrator

STEPHEN FRY
County Attorney

Telephone: 772-288-5710
Fax: 772-221-1457
Email: jferrara@martin.fl.us

August 16, 2012

Ms. Donna M. Calabrese
Emergency Preparedness Manager
St. Lucie Plant, Florida Power & Light
6501 S. Ocean Drive
Jensen Beach, Florida 34957

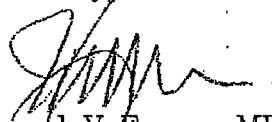
Ms. Donna Calabrese,

Please accept this letter as a revised Letter of Agreement between Martin County Fire Rescue and Florida Power & Light Company.

Your organization is authorized to use the Jensen Public Beach parking area at the intersection of State Road A1A and County Road 722 as a staging area during an emergency at the St. Lucie Nuclear Power Plant.

If we can help in any further way, please let us know.

Sincerely,


Joseph V. Ferrara, MPA
Fire Rescue Chief

JVF/mlb

cc: Taryn Kryzda, County Administrator
Kevin Abbate, Parks and Recreation Director
Debra McCaughey, Emergency Management Agency Director
Daniel J. Wouters, Division Chief, Operations
Jon O. Belding, Division Chief, Administration
Jeffery S. Moody, FP&L, Emergency Planning Coordinator

TELEPHONE
772-288-5434

WEB ADDRESS
<http://www.martin.fl.us>

APPENDIX F EMERGENCY PLAN IMPLEMENTING PROCEDURES

<u>PROCEDURE NUMBER</u>	<u>TITLE</u>
EPIP-00	Discovery and Identification of an Emergency Condition (Including Chemical, Fire, and Natural Emergencies)
EPIP-01	Classification of Emergencies
EPIP-02	Duties and Responsibilities of the Emergency Coordinator
EPIP-03	Emergency Response Organization Notification/ Staff Augmentation
EPIP-04	Activation and Operation of the Technical Support Center
EPIP-05	Activation and Operation of the Operational Support Center
EPIP-06	Activation and Operation of the Emergency Operations Facility
EPIP-07	Conduct of Evacuations/Assembly
EPIP-08	Off-site Notifications and Protective Action Recommendations
1/2-EPIP-09	Off-site Dose Calculations
EPIP-10	Off-site Radiological Monitoring
EPIP-11	Core Damage Assessment
EPIP-12	Maintaining Emergency Preparedness - Radiological Emergency Plan Training
EPIP-13	Maintaining Emergency Preparedness - Emergency Exercises, Drills, Tests, and Evaluations
EPIP-14	Dose Assessment Using the Unified RASCAL Interface
RP-SL-105-1005	Emergency Equipment
RP-SL-100-1005	Radiation Protection Emergency Organization
RP-SL-101-2000	Emergency Personnel Exposure Control
RP-SL-102-2005	Environmental Monitoring During Emergencies
RP-SL-101-2001	Personnel Access Control During Emergencies
RP-SL-102-2002	In-plant Radiation and Contamination Surveys During Emergencies
RP-SL-102-2003	Emergency In-plant Air Sampling
RP-SL-102-2004	Analysis of Emergency In-plant Air Samples
RP-SL-101-2003	Monitoring Evacuated Personnel During Emergencies
RP-SL-101-2004	Personnel Decontamination During Emergencies
CY-SL-108-0004	Guidelines for Collecting Post Accident Samples
CY-SL-108-0007	Establishing Remote Laboratory for Analyses of Accident Samples
0-AOP-72.01	Response to Security Events
SFI-6307	Emergency Plan Implementing Procedures