



Crystal River Nuclear Plant  
15760 W. Power Line Street  
Crystal River, FL 34428  
Docket 50-302  
Docket 72-1035  
Operating License No. DPR-72

10 CFR 50.54(q)(5)  
10 CFR 50.4(b)(5)(ii)  
10 CFR 50.90

January 16, 2019  
3F0119-02

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

Subject: Crystal River Unit 3 – License Amendment Request #326, Revision 0, ISFSI Only  
Emergency Plan, Revision 1

Reference: NRC to CR-3 letter dated March 22, 2017, "Issuance of Amendment Approving  
Independent Spent Fuel Storage Installation (ISFSI) – Only Emergency Plan and  
ISFSI-Only Emergency Action Level Bases Manual," (ADAMS Accession No  
ML17048A474)

Dear Sir:

In accordance with 10 CFR 50.54(q)(4) and 10 CFR 50.4(b)(5)(ii), Duke Energy Florida, LLC (DEF), hereby submits a License Amendment Request (LAR) to provide a revision to the Crystal River Unit 3 (CR-3) Independent Spent Fuel Storage Installation (ISFSI)-Only Emergency Plan (IOEP). This revision contains several editorial changes, and one substantive change to the IOEP pertaining to the replacement of the Emergency Response Coordinator (ERC). This position is identified in the IOEP as performing medical and fire response activities. In the above Reference, the NRC approved the CR-3 IOEP.

CR-3 has evaluated this change in accordance with 10 CFR 50.54(q)(3), and determined that while this revision is considered a reduction in effectiveness of the Emergency Plan as currently approved, the proposed alternative continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of 10 CFR 50, Appendix E. Attachment 1 provides the description of changes, technical analysis, Significant Hazards Determination, and Environmental Consideration.

The IOEP is provided as Attachment 2.

DEF requests approval of this IOEP LAR by May 31, 2019. DEF requests this time frame to minimize potential impact to the Nuclear Decommissioning Trust (NDT) that could occur if CR-3 is required to maintain the ERC position after this date. Once approved, the amendment will be implemented within sixty (60) days.

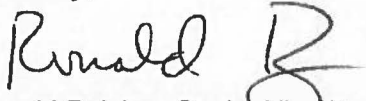
An Independent Management Assessment was performed by the CR-3 Plant Nuclear Safety Committee, which recommended this LAR for submittal, and a copy of this submittal has been provided to the State of Florida in accordance with 10 CFR 50.91(b).

This correspondence contains no new regulatory commitments.

If you have any questions regarding this submittal, please contact Mr. Philip A. Rose, Licensing Engineer, Nuclear Regulatory Affairs, at (352) 501-3172.

I declare under penalty of perjury that the foregoing is true and correct. Executed on January 16, 2019.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ronald B.', is written over the printed name.

Ronald Reising, Senior Vice President  
Operations Support

RR/par

- Attachment
1. Discussion of Change, Technical Analysis, Significant Hazards Determination, and Environmental Considerations
  2. Crystal River Unit 3 ISFSI-Only Emergency Plan, Revision 1

xc: NMSS Project Manager  
Regional Administrator, Region I  
State of Florida

**DUKE ENERGY FLORIDA, LLC**

**DOCKET NUMBER 50 - 302 / DOCKET NUMBER 72 - 1035  
LICENSE NUMBER DPR - 72**

**ATTACHMENT 1**

**DISCUSSION OF CHANGE, TECHNICAL ANALYSIS,  
SIGNIFICANT HAZARDS DETERMINATION, AND  
ENVIRONMENTAL CONSIDERATIONS**

Discussion of Change, Technical Analysis, Significant Hazards Determination, and  
Environmental Considerations

Discussion of Change

In accordance with 10 CFR 50.54(q)(4), Duke Energy Florida, LLC is providing a License Amendment Request for the revised Crystal River Unit 3 (CR-3) Independent Spent Fuel Storage Installation (ISFSI)-Only Emergency Plan (IOEP) being submitted with this letter. There are several editorial changes such as updating the name of the local hospital. The change determined to be substantive associated with program elements is described below.

Below is a table that summarizes all of the changes proposed, including editorials, which are noted as such. This analysis will only consider the changes made to the IOEP that are not considered editorial. These changes are bolded in the text of the table below.

IOEP Rev 1 Summary of Changes

PAGE / SECTION	CHANGE	REASON
Page 6-3 Section 6.2.3	<b>Revised the section on Medical Response Personnel to reflect that on-site personnel will provide first aid response.</b>	The ERC position has been eliminated
Page 6-3 Section 6.2.4	<b>Revised the section on Fire Response to reflect that firefighting response at the CR-3 ISFSI will be implemented in accordance with the CR-3 ISFSI Fire Protection Plan. Included discussion of Citrus County Fire Rescue response.</b>	The ERC position has been eliminated
Page 6-5 Table 6.1	<b>Revised Table to reflect changes made to Sections 6.2.3 and 6.2.4.</b>	The ERC position has been eliminated
Throughout	Changed references to Seven Rivers Regional Medical Center/SRRMC to Bayfront Health Seven Rivers hospital	Editorial – The name of the hospital has changed.
Page A-2	Added ISFS-190 to Appendix A, 10 CFR 50.47(b)(2) line item.	Editorial – This procedure implements the CR-3 ISFSI Fire Protection Plan requirements.
Page B-1	Changed title of Appendix B from Permanently Defueled Emergency Plan to ISFSI Only Emergency Plan	Editorial – correction to incorrect title

Background

The Emergency Response Coordinator (ERC) position is a Crystal River Energy Complex position that serves CR-3 and co-located fossil and natural gas plants. This position is currently the individual responsible for the command and control function for all fires at the energy complex. The ERC is also the designated medical responder for medical emergencies and is Emergency Medical Technician (EMT) certified. As this position has been available at the energy complex for many years, CR-3 incorporated the position into the IOEP. Due to organizational restructuring, the ERC position is being eliminated at the Crystal River Energy Complex. As a result, CR-3 will

be replacing the ERC with a strategy that uses other existing CR-3 positions that still satisfies the regulatory requirements for fire response and medical response.

A review of the regulations and a benchmark of the approved IOEPs of other nuclear power plants that have entered decommissioning since 2013, has shown that a position with this level of qualification is not required to meet the requirements of 10 CFR 50.47 and Appendix E to 10 CFR 50.

### Technical Analysis

10 CFR 50.47 states in part, that On-shift licensee responsibilities for emergency response are unambiguously defined and adequate staff to provide initial facility accident response is maintained at all times. There is also a requirement that the interfaces among various onsite response activities and offsite support and response activities are specified. 10 CFR 50, Appendix E, states that emergency facilities shall have adequate supplies for appropriate emergency first aid treatment. Additionally, the emergency response program is to provide for training and periodic drills for fire control teams, first aid and rescue teams, and medical support personnel, amongst others. These requirements were satisfied with the availability of the Emergency Response Coordinator, who was always within a rapid response range and was qualified for medical response and firefighting activities among others not required by the emergency response regulations.

During the development of the draft ISFSI-Only Emergency Plan (IOEP), it was determined that CR-3 would take an exception to the Kewaunee Nuclear Plant IOEP being reviewed by the NRC staff. The Kewaunee draft IOEP had personnel trained in American Red Cross techniques and methods as their medical response personnel and addressed the fire response by stating that the response would be as identified in the site Fire Protection Plan. Since CR-3 already was using the ERC for fire and medical response, for convenience the decision was made to use the ERC in this position in the Emergency Plan, instead of training others. During the staff's review of the draft CR-3 Permanently Defueled Emergency Plan, a question was asked requesting additional information on the medical qualifications of the ERC. DEF responded that the ERC was Emergency Medical Services (ambulance) Responder qualified. Therefore, eliminating the ERC, and replacing the position with plant personnel trained to an acceptable level (i.e., American Red Cross Basic First Aid (or equivalent)) would be considered a reduction in effectiveness, requiring a LAR to obtain approval of these Emergency Plan changes.

With the elimination of the ERC position at the Crystal River Energy Complex, CR-3 will be solely responsible for providing these functions as delineated in the IOEP. CR-3 is training appropriate personnel to satisfy the requirements and functions of the IOEP, such that there will not be any period where the facility is not adequately staffed. Medical response for the facility will be provided by training all CR-3 shift personnel in American Red Cross Basic First Aid (or equivalent) techniques and methods for basic life support to injured persons. These positions will also be trained in use of the Automatic Emergency Defibrillator (AED) and Cardiopulmonary Resuscitation (CPR). This function will also determine if additional medical assistance is required and will be responsible to request transportation for injured persons to a medical facility, as required. Sufficient medical supplies will be located within the Security Operations Center inside the protected area. The actual response time for this medical response function is expected to decrease as the Security personnel are already within the ISFSI protected area. The ERC is not dedicated to the CR-3 site and could be at another facility performing a different function, thereby increasing the response time by having to enter the protected area.

The ERC is fully trained in firefighting techniques and is the designated position to take command and control during a fire, and to interface with the offsite fire department that would be brought in to combat large fires. CR-3 has been maintaining higher performance standards for these positions in implementing the IOEP than the other decommissioning plants that have reached the ISFSI only stage.

With the elimination of the ERC position at the Crystal River Energy Complex, DEF will ensure that fire extinguishers are available for use by the on-shift personnel inside the protected area. Additionally, transient combustibles are controlled in the protected area, a sprinkler system is installed inside the Security Operations Center (SOC) within the protected area, and a fire hydrant is available inside the protected area to supply water for mitigating or extinguishing fires. DEF will train all CR-3 shift employees on how to use a fire extinguisher to fight small fires. The Emergency Coordinator (EC) will contact the offsite fire response organization in the event of a fire within the protected area. These measures are identified in the CR-3 ISFSI Fire Protection Plan. The actual response time for the fire protection functions to occur is expected to decrease as any potential delay in the ERC accessing the protected area will no longer occur.

The spent fuel is protected inside sealed steel canisters stored within hardened concrete horizontal storage modules, therefore, the lower potential for a fire to occur combined with the fire protection features and administrative controls described above, support the change in responsible personnel. Additionally, the Fire Protection Plan for CR-3 structures outside the ISFSI has also evolved, from primary response being the plant fire brigade to primary response being the offsite fire response organization. This compilation of measures ensures that the fire response for an ISFSI facility is adequately supported by personnel with a fire extinguisher and a telephone. The SOC is the primary command center for the protected area, but any location with communication capability would be acceptable for requesting assistance from offsite responders.

These changes described above do not prevent implementation of any of the Emergency Plan functions. The revised IOEP continues to meet the requirements of 10 CFR 50, Appendix E and 10 CFR 50.47(b) Planning Standards. This change will make the CR-3 IOEP consistent with the IOEPs of the Zion Nuclear Power Station, Kewaunee Power Station; Vermont Nuclear Power Station; and San Onofre Nuclear Generating Station.

#### No Significant Hazards Determination

In accordance with 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Duke Energy Florida, LLC (DEF), requests NRC approval of this change to the site Independent Spent Fuel Storage Installation (ISFSI) Only Emergency Plan (IOEP) of the removal of the Emergency Response Coordinator (ERC) position from the IOEP. This position was identified in the medical response function and the fire protection function described in the IOEP. The functions will be satisfied using other personnel on shift with appropriate qualifications and experience.

DEF has evaluated whether a significant hazards consideration is involved with the proposed amendment by focusing on the three conditions set forth in 10 CFR 50.92, "Issuance of amendment," discussed below:

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

The proposed amendment would modify the CR-3 facility operating license by revising the emergency plan. CR-3 has permanently ceased operation and is permanently defueled.

Occurrence of postulated accidents associated with spent fuel stored in a spent fuel pool is no longer credible in a spent fuel pool devoid of such fuel. The UFSAR for NUHOMS Certificate of Compliance (CoC) 1004 states most accidents are not credible and the accident analysis demonstrates that none of the hypothetical accidents analyzed has any consequential effect on the public. Many of the analyzed events, like a fire at the ISFSI, have no radiological release. The proposed amendment has no effect on the capability of any plant or ISFSI System, Structure, or Components (SSC) to perform its design function. The proposed amendment would not increase the likelihood of the malfunction of any ISFSI SSC as there are no hardware or software modifications associated with this change. The proposed amendment would have no effect on any of the previously evaluated accidents in the ISFSI UFSAR for CoC 1004.

The specific non-editorial changes of the emergency plan revision only reassign the medical and fire response responsibilities from one individual title, the Emergency Response Coordinator, to plant specific personnel.

A medical emergency may be the result of some event within the plant or ISFSI protected area. However, the qualification or response time of the individuals providing basic first aid or contacting offsite responders for additional medical assistance would have no impact on any accident or event scenario and will not change the bounding accident or event consequences to the onsite personnel or the general public.

Likewise, a fire emergency may be the result of an onsite event, but a calculation performed by DEF demonstrates that the design basis fire analyzed in the UFSAR for CoC 1004 is bounding and would not create a release. The CR-3 Fire Protection Program allows for plant personnel to attempt to put out small fires with fire extinguishers but requires offsite fire response organization to be called for assistance. The person who makes the call for this assistance does not need to be highly trained in firefighting techniques, and being able to make the call more rapidly can only be considered a beneficial change.

The proposed amendment would not increase the likelihood of the malfunction of any ISFSI SSC. The proposed amendment would have no effect on any of the previously evaluated accidents in the UFSAR for CoC 1004.

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

The proposed amendment constitutes a revision of the emergency planning function commensurate with the ongoing and anticipated reduction in staff at CR-3.

The proposed amendment does not involve a physical alteration of the ISFSI. No new or different types of equipment will be installed and there are no physical modifications to existing equipment as a result of the proposed amendment. Similarly, the proposed amendment would not physically change any SSC utilized in the mitigation of any postulated accidents (such as fire protection equipment). Thus, no new initiators or precursors of a new or different kind of accident are created. Furthermore, the proposed amendment does not create the possibility of a new failure mode associated with any equipment or personnel failures. The credible events for the ISFSI remain unchanged and the resultant consequences are unchanged.

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

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

Because the 10 CFR Part 50 license for CR-3 no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel, as specified in 10 CFR 50.82(a)(2), the occurrence of postulated accidents associated with reactor operation is no longer credible. With all spent nuclear fuel transferred out of wet storage from the spent fuel pools and placed in dry storage within the ISFSI, a fuel handling accident is no longer credible. The accident analyses presented in the ISFSI UFSAR for CoC 1004 demonstrates that there are no accidents or events that will result in any type of significant release, with most accidents having no radiological release.

The proposed amendment does not involve a change in the ISFSI's design, configuration, or operation. The proposed amendment does not affect either the way in which the ISFSI structures, systems, and components perform their safety function or their design margins. Because there is no change to the physical design of the ISFSI, there is no change to these margins.

Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

Based on the above, DEF concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly a finding of "no significant hazards consideration" is justified.

Applicable Regulatory Requirements/Criteria

The regulatory requirements, as exempted, are discussed below:

Title 10 of the Code of Federal Regulations (10 CFR), Section 50.47, "Emergency Plans," set forth emergency plan requirements for nuclear power plant facilities. The regulations in 10 CFR 50.47(b)(2) state, in part:

"On-shift licensee responsibilities for emergency response are unambiguously defined and adequate staff to provide initial facility accident response is maintained at all times, ...and the interfaces among various onsite response activities and offsite support and response activities are specified."

Section 50.47(b) establishes the standards that emergency response plans must meet for NRC staff to make a positive finding that there is reasonable assurance that the licensee can and will take adequate protective measures in the event of a radiological emergency.

Planning Standard (2) discusses the on-shift responsibilities and interface requirements with offsite responders.

Planning Standard (8) discusses adequate emergency response facilities and equipment to support the emergency response.



Planning Standard (12) discusses medical services for contaminated injured individuals.

10 CFR 50 Appendix E, Section IV Emergency Facilities and Equipment, Section E.4 requires facilities and medical supplies at the site for appropriate emergency first aid treatment.

DEF proposes to revise the IOEP to replace the Emergency Response Coordinator (ERC), a position that provides support for the entire Crystal River Energy Complex with fire response, medical response, and other non-emergency plan related response activities, with CR-3 personnel on shift and located within the protected area.

All spent nuclear fuel is located within sealed steel canisters with concrete overpacks stored within the ISFSI protected area and accidents involving the fuel or allowing releases of radioactive material are not credible. The amount of work being performed in radiologically contaminated areas is essentially zero, and most energy sources have been turned off so the likelihood of an accident, fire, or an injury is very small. The IOEP and the ISFSI Fire Protection Plan require offsite response to take a primary role for all but the smallest of events. Requiring Emergency Medical Technician certified personnel for injury response or having firefighting qualified personnel to use a fire extinguisher or call offsite fire department is not necessary.

DEF continues to satisfy the regulatory requirements identified above. The CR-3 IOEP continues to require that on-shift responsibilities are spelled out, adequate facilities and equipment/supplies are available and personnel with Basic first aid certification are on-site and available at all times, and personnel are aware how to use fire extinguishers to put out small fires and when to call for offsite assistance.

### Conclusion

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

### ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 52.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

**DUKE ENERGY FLORIDA, LLC**

**DOCKET NUMBER 50 - 302 / DOCKET NUMBER 72 - 1035  
LICENSE NUMBER DPR - 72**

**ATTACHMENT 2**

**DRAFT CRYSTAL RIVER UNIT 3**

**ISFSI-ONLY EMERGENCY PLAN, REVISION 1**



**INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI)  
ONLY  
EMERGENCY PLAN  
(IOEP)  
Revision 1**

**DUKE ENERGY FLORIDA, LLC  
CRYSTAL RIVER UNIT 3**

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**Emergency Planning Coordinator**

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**Date**

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**ISFSI Site Director**

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**Date**

## **TABLE OF CONTENTS**

1.0	INTRODUCTION.....	1-1
1.1	PURPOSE .....	1-2
1.2	SCOPE .....	1-2
2.0	DISCUSSION.....	2-1
2.1	OVERVIEW OF ISFSI-ONLY EMERGENCY PLAN (IOEP) .....	2-1
2.2	FACILITY DESCRIPTION.....	2-2
2.3	SUMMARY OF EMERGENCY ACTIONS .....	2-3
3.0	REFERENCES.....	3-1
4.0	DEFINITIONS AND ABBREVIATIONS.....	4-1
4.1	DEFINITIONS .....	4-1
4.2	ABBREVIATIONS .....	4-5
5.0	ASSIGNMENT OF RESPONSIBILITY (ORGANIZATION CONTROL) .....	5-1
5.1	ISFSI ORGANIZATION.....	5-1
5.2	EMERGENCY RESPONSE AND RESPONSIBILITIES .....	5-2
5.3	OFFSITE RESPONSE ORGANIZATIONS (ORO) .....	5-3
5.4	WRITTEN AGREEMENTS FOR EMERGENCY RESPONSE .....	5-6
6.0	EMERGENCY RESPONSE ORGANIZATION.....	6-1
6.1	ON-SHIFT POSITIONS.....	6-1
6.2	CR-3 ISFSI AUGMENTED EMERGENCY RESPONSE ORGANIZATION.....	6-3
7.0	EMERGENCY RESPONSE SUPPORT AND RESOURCES .....	7-1
8.0	EMERGENCY CLASSIFICATION SYSTEM.....	8-1
8.1	STANDARD CLASSIFICATION OF EMERGENCIES .....	8-1
8.2	EMERGENCY ACTION LEVELS AND POSTULATED ACCIDENTS.....	8-2
9.0	NOTIFICATION METHODS AND PROCEDURES .....	9-1
9.1	BASIS FOR NOTIFICATION.....	9-1
9.2	MEANS OF NOTIFICATION .....	9-1
9.3	EMERGENCY MESSAGES.....	9-3
10.0	EMERGENCY COMMUNICATIONS .....	10-1
11.0	PUBLIC INFORMATION.....	11-1
12.0	EMERGENCY FACILITY AND EQUIPMENT .....	12-1
12.1	EMERGENCY RESPONSE FACILITY (ERF) .....	12-1
12.2	EMERGENCY EQUIPMENT.....	12-1
12.3	EMERGENCY SUPPLIES .....	12-2
12.4	FIRST AID FACILITIES.....	12-2
13.0	ACCIDENT ASSESSMENT.....	13-1
14.0	PROTECTIVE ACTIONS.....	14-1
14.1	CR-3 ISFSI ACCOUNTABILITY.....	14-1
15.0	RADIOLOGICAL EXPOSURE CONTROL.....	15-1
15.1	EXPOSURE GUIDELINES .....	15-1
15.2	RADIATION PROTECTION .....	15-1

## **TABLE OF CONTENTS**

15.3	CONTAMINATION CONTROL.....	15-2
16.0	MEDICAL AND HEALTH SUPPORT .....	16-1
16.1	ON-SITE FIRST AID .....	16-1
16.2	MEDICAL TRANSPORTATION .....	16-1
16.3	OFF-SITE MEDICAL SUPPORT.....	16-2
17.0	EMERGENCY TERMINATION AND RECOVERY.....	17-1
17.1	EMERGENCY TERMINATION AND NOTIFICATION .....	17-1
17.2	RECOVERY OPERATIONS .....	17-1
18.0	EXERCISE AND DRILLS .....	18-1
18.1	BIENNIAL EXERCISE AND DRILL .....	18-1
18.2	TRAINING DRILLS .....	18-2
18.3	CRITIQUES .....	18-3
19.0	EMERGENCY RESPONSE ORGANIZATION TRAINING .....	19-1
19.1	ISFSI SHIFT SUPERVISORS/EMERGENCY COORDINATORS AND RESOURCE MANAGERS .....	19-1
19.2	MEDICAL RESPONSE PERSONNEL .....	19-1
19.3	RADIATION MONITORING PERSONNEL.....	19-2
19.4	MEDICAL SUPPORT PERSONNEL .....	19-2
20.0	RESPONSIBILITY FOR THE PLANNING EFFORT: DEVELOPMENT, PERIODIC REVIEW AND DISTRIBUTION OF EMERGENCY PLANS .....	20-3
20.1	EMERGENCY PLANNING COORDINATION .....	20-3
20.2	PLAN/PROCEDURES REVIEW AND UPDATE.....	20-3
20.3	TRAINING.....	20-4
20.4	AUDITS .....	20-4

## **TABLE OF CONTENTS**

### **Appendices**

### **Page**

APPENDIX A - Cross Reference IOEP Section to Planning Standards/Requirements and Implementing Procedures .....	A-1
APPENDIX B - Agreements with Supporting Organizations .....	B-1

### **Tables**

6.1     Emergency Response Organization Staffing and Responsibilities .....	6-5
12.1    Typical Emergency Equipment/Supplies.....	12-3
15.1    Guidelines for Emergency Response Worker Exposure .....	15-3
Summary of Changes .....	SOC 1

## **1.0 INTRODUCTION**

Crystal River Unit 3 Nuclear Plant (CR-3) was safely shutdown on September 26, 2009. On February 20, 2013, by letter 3F0213-07, Duke Energy provided certification to the U.S. Nuclear Regulatory Commission (NRC) required by 10 CFR 50.82(a)(1)(i) and (ii) that CR-3 has permanently ceased operations and that all fuel has been permanently removed from the reactor vessel. Subsequently, all spent fuel has been transferred to the on-site INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI) facility.

The CR-3 ISFSI Only Emergency Plan (IOEP) describes the plan for responding to emergencies that may arise at the station's ISFSI. In this condition, no reactor operations can take place and all irradiated fuel is removed from the Spent Fuel Pool. This IOEP adequately addresses the risks associated with CR-3's current conditions.

As provided in the ISFSI storage system UFSARs, the analyses of the potential radiological impacts of postulated off-normal, natural phenomenon, and accident events in an ISFSI-Only condition indicates that any releases would result in a dose to the public below the radiation limits established in 10 CFR 72.106(b). Exposure levels, which warrant pre-planned response measures, are generally limited to the ISFSI pad and nearby vicinity, and for this reason; radiological emergency planning is focused on this area.

## **1.1 PURPOSE**

The purpose of the IOEP is to assure an adequate level of preparedness to cope with the spectrum of emergencies that could be postulated to occur. This Plan integrates the necessary elements to provide effective emergency response considering cooperation and coordination of organizations expected to respond to emergencies.

## **1.2 SCOPE**

The IOEP is developed to respond to potential radiological emergencies at the CR-3 ISFSI. Because there are no postulated off-normal, natural phenomenon, or accident events that would result in offsite dose consequences large enough to require offsite emergency planning, the overall scope of this plan delineates the actions necessary to safeguard onsite personnel. The concepts presented in this plan address the applicable regulations stipulated in 10 CFR 50.47, "Emergency Plans," and 10 CFR 50 Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities". The Plan is consistent with the applicable guidelines established in NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" and NEI 99-01, "Development of Emergency Action Levels for Non-Passive Reactors," Rev. 6.

Exemptions from selected portions of 10 CFR 50.47 and 10 CFR 50 Appendix E for CR-3 were granted by the Nuclear Regulatory Commission (NRC) on March 30, 2015 (ADAMS Accession Number: ML15058A906).

The IOEP, Revision 0, was approved per NRC Safety Evaluation dated March 22, 2017.



## **2.0 DISCUSSION**

### **2.1 OVERVIEW OF ISFSI-ONLY EMERGENCY PLAN (IOEP)**

In the event of an emergency at the CR-3 ISFSI, actions are required to identify and assess the nature of the emergency and to bring it under control in a manner that protects the health and safety of onsite personnel. This Plan describes the organization and responsibilities of Duke Energy for implementing emergency measures. It describes interfaces with Federal, State of Florida, and Citrus County organizations, which may be notified in the event of an emergency, and may provide assistance. Emergency services are provided by local public and private entities. Fire, rescue and law enforcement services are provided by Citrus County. Ambulance service is provided by Nature Coast Emergency Medical Services. Medical services are provided by Bayfront Health Seven Rivers hospital.

CR-3 is licensed under the requirements of 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." Consistent with the requirements of 10 CFR Part 50, this Plan is based on the requirements of 10 CFR Part 50, Section 50.47(b) and Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," with approved exemptions. Sections 5.0 thru 20.0 of this Plan address the standards outlined in 10 CFR 50.47(b)(1) through (16). In addition, the Plan is also intended to meet appropriate State of Florida and U.S. NRC regulations in accordance with Duke Energy's Operating License (No. DPR 72). CR-3 is licensed to store spent fuel in the CR-3 ISFSI under the General License provisions of 10 CFR 72.210 and 10 CFR 72.212.

Because the analyses of the credible design basis events and consequences indicate there are no postulated accidents that would result in off-site dose consequences that are large enough to require off-site emergency planning, emergencies are divided into two classifications: 1) Notification of UNUSUAL EVENT and 2) ALERT. This classification scheme has been discussed and agreed upon with responsible off-site organizations and is compatible with the State Plan.

## **2.1 OVERVIEW OF ISFSI-ONLY EMERGENCY PLAN (IOEP) (Continued)**

Duke Energy is responsible for planning and implementing emergency measures associated with the CR-3 ISFSI. This Plan is provided to meet that responsibility. To carry out specific emergency measures discussed in this Plan, detailed implementing procedures are established and maintained. Appendix A provides a listing of the implementing procedures for this Plan.

In addition to the description of activities and steps that can be implemented during a potential emergency, this Plan also provides a general description of the steps taken to recover from an emergency. It also describes the training, drills, exercises, planning, and coordination appropriate to maintain an adequate level of emergency preparedness.

## **2.2 FACILITY DESCRIPTION**

The CR-3 Plant is located at Red Level, Florida in Citrus County, about 5 miles south of Levy County. The site is 7.5 miles northwest of Crystal River, Florida and 90 miles north of St. Petersburg, Florida. CR-3 is situated on the Gulf of Mexico, within the Crystal River Energy Complex.

CR-3 formerly consisted of a single unit nominal 911 MWe / 2609 MWth Nuclear Power Plant, utilizing a Babcock & Wilcox (B&W) Company (currently AREVA) pressurized water reactor (PWR). The unit is certified to have ceased power operations and is permanently defueled in accordance with 10 CFR 50.82(a)(1)(i) and (ii). All spent fuel has been transferred to the CR-3 INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI) which is located to the east of the CR-3 Plant. The CR-3 ISFSI is a robust and high integrity facility for the spent fuel storage system. This facility is designed to prevent the release of radioactivity in the event of accidents, including environmental phenomena (e.g., earthquake and flooding).

## **2.3 SUMMARY OF EMERGENCY ACTIONS**

The IOEP is activated by the ISFSI Shift Supervisor (ISS) upon identification of an emergency situation based upon the EMERGENCY ACTION LEVEL (EAL) criteria. The ISS assumes the position of the EMERGENCY COORDINATOR (EC). The emergency measures described in the subsequent sections and implementing procedures are implemented in accordance with the classification and nature of the emergency at the direction of the EC. Regulatory authorities and off-site support organizations are notified in accordance with this Plan. The EC has authority and responsibility for control and mitigation of the emergency, including emergency response resources, coordination of radiological ASSESSMENT ACTIVITIES, RECOVERY implementation, and coordination of emergency response activities.

The following sections of this IOEP describe the detailed plans and actions of the CR-3 Emergency Response Organization (ERO), including interfaces with off-site support organizations.

### 3.0 **REFERENCES**

- 3.1 10 CFR 50.47, "Emergency Plans"
- 3.2 10 CFR Part 50, Appendix "E," "Emergency Planning and Preparedness for Production and Utilization Facilities"
- 3.3 10 CFR Part 20, "Standards for Protection Against Radiation"
- 3.4 NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations" (July 1979)
- 3.5 NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (November 1980)
- 3.6 Regulatory Guide 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors"
- 3.7 Environmental Protection Agency, "Protective Action Guide and Planning Guidance for Radiological Incidents," Draft for Interim Use and Public Comment (March 2013)
- 3.8 "State of Florida Radiological Emergency Management Plan" (herein referred to as State Plan)
- 3.9 State of Florida Statutes, Chapter 170J-1, "Control of Radiation Hazards"
- 3.10 CR-3 Final Safety Analysis Report (FSAR)
- 3.11 CR-3 Permanently Defueled Technical Specifications
- 3.12 Emergency Plan Implementing Procedures
- 3.13 Bayfront Health Seven Rivers Hospital "Radioactive Materials Procedure"
- 3.14 NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events"
- 3.15 NEI 99-01, "Development of Emergency Action Levels for Non-Passive Reactors," Rev. 6
- 3.16 CR-3 Letter 3F0213-07 dated February 20, 2013. Crystal River Unit 3 – Certification of Permanent Cessation of Power Operations and that Fuel Has Been Permanently Removed from the Reactor. ML13056A005.
- 3.17 NRC Letter dated March 13, 2013. Crystal River Unit 3 Nuclear Generating Plant Certification of Permanent Cessation of Operation and Permanent Removal of Fuel From the Reactor.
- 3.18 NRC Letter dated March 30, 2015. Exemptions From Certain Emergency Planning Requirements And Related Safety Evaluation. ML15058A906.
- 3.19 ISFSI Storage System Certificates of Compliance, Updated Final Safety Analysis Reports and Technical Specifications.
- 3.20 10 CFR 72.106, Controlled area of an ISFSI or MRS.

## 4.0 **DEFINITIONS AND ABBREVIATIONS**

### 4.1 **DEFINITIONS**

This section provides definitions that are used in this document. Terms capitalized in the text of this document indicate that they are defined here.

1. **Accountability:** Discretionary protective action taken for all persons onsite (within the ISFSI PROTECTED AREA) that involves the gathering of personnel into pre-designated areas and subsequent verification that the location of all personnel is known.
2. **Annual:** Once per calendar year unless otherwise specifically stated.
3. **Assessment Activities:** Actions taken during or after an emergency for the purpose of obtaining and processing the information that will be used to make the decisions to implement specific emergency measures.
4. **Emergency Actions:** Assessment, corrective, and PROTECTIVE ACTIONS designed to achieve a safe, stable condition, and to immediately mitigate the effects of the emergency.
5. **Emergency Action Level (EAL):** A pre-determined, observable threshold for conditions that places the CR-3 ISFSI in a given emergency classification.
6. **Emergency Classification System:** A system of classification in which emergency occurrences are categorized according to specific protective action levels. The two emergency classifications in order of significance are UNUSUAL EVENT and ALERT. These classifications are defined by NEI 99-01, Rev. 6 as follows:
  - a. **Unusual Event:** Events are in progress or have occurred which indicate a potential degradation of the level of safety of the ISFSI 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.

#### 4.1 DEFINITIONS (Continued)

- b. **Alert:** Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the CR-3 ISFSI or a security event that involves probable life threatening risk to site personnel or damage to ISFSI equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA PAG exposure levels.
- 7. **Emergency Coordinator (EC):** This position is the highest level of authority for the CR-3 ERO and on-site emergency activities. This position is held by the ISFSI Shift Supervisor or designated alternate.
- 8. **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.
- 9. **Frequency:** That unit of time specified (monthly, quarterly, etc.) plus or minus 25 percent unless otherwise specifically stated. This definition does not apply to "ANNUAL" when it is related to the conduct of the Biennial Exercise (NRC Evaluated). Biennial Exercises are performed within the calendar year.
- 10. **Hostile Action:** An act toward the CR-3 ISFSI 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 CR-3 ISFSI. Non-terrorism-based EALs should be used to address such activities, (e.g., violent acts between individuals in the OWNER CONTROLLED AREA). (NEI 99-01, Rev. 6)

#### 4.1 DEFINITIONS (Continued)

11. **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. (NEI 99-01, Rev. 6)
12. **Independent Spent Fuel Storage Installation (ISFSI):** A complex that is designed and constructed for the interim storage of spent nuclear fuel and other radioactive materials associated with spent fuel storage.
13. **Local Assembly Area:** A pre-designated area personnel report to for organization, roll-call, and supervision when CR-3 ISFSI ACCOUNTABILITY is initiated.
14. **Owner Controlled Area:** The area of land (approximately 4738 acres) that is owned, leased, or otherwise controlled by Duke Energy, situated between the mouths of the Withlacoochee and Crystal Rivers and bounded to the north by woodlands, to the east by Highway 19, to the south by medium to dense woodlands and to the west by marshlands and the Gulf of Mexico.
15. **Protected Area:** The area encompassed by physical barriers and to which access is controlled.
16. **Protective Actions:** Those emergency measures taken after an uncontrolled release of radioactive material has occurred for the purpose of preventing or minimizing radiological exposures to persons that would be likely to occur if the actions were not taken.
17. **Protective Action Guide (PAG):** The projected dose to an individual, resulting from a radiological incident at which a specific PROTECTIVE ACTION to reduce or avoid that dose is warranted.

#### 4.1 DEFINITIONS (Continued)

18. **Recovery:** The condition declared after the immediate hazards to life and safety due to the emergency have been removed and efforts are directed to returning affected areas to normal.
19. **Recovery Actions:** Those actions taken after the emergency to restore the CR-3 ISFSI as nearly as possible to its pre-emergency condition.
20. **Release (Radioactive):** Any radioactive material beyond pre-emergency levels and not attributable to normal operations, either detected or suspected of migrating beyond the **PROTECTED AREA**, while in a declared emergency. (Florida Nuclear Plant Emergency Notification Form).
21. **Site Boundary:** That line beyond which the land is not owned, leased, or otherwise controlled by the licensee. This line establishes the perimeter of the OWNER CONTROLLED AREA (OCA).



## 4.2 **ABBREVIATIONS**

CCSO	Citrus County Sheriff's Office
CR-3	Crystal River Unit 3
DEM	State of Florida Department of Community Affairs, Division of Emergency Management
DHBRC	Department of Health, Bureau of Radiation Control (State of Florida)
EAL	Emergency Action Level
EC	Emergency Coordinator
ENS	Emergency Notification System
EPA	U.S. Environmental Protection Agency
ERO	Emergency Response Organization
FSAR	Final Safety Analysis Report
ISFSI	Independent Spent Fuel Storage Installation
NRC	U.S. Nuclear Regulatory Commission
ORO	Offsite Response Organization
PAG	Protective Action Guide
RCA	Radiation Controlled Area
REAC/TS	Radiation Emergency Assistance Center/Training Site
SHRD	State Hot Ringdown
SWO	State Watch Office

## **5.0 ASSIGNMENT OF RESPONSIBILITY (ORGANIZATION CONTROL)**

The CR-3 ISFSI Organization has complete capability at all times to perform the detection, classification, initial response, and notification functions required during an emergency.

Primary responsibilities for emergency response have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

### **5.1 ISFSI ORGANIZATION**

Duke Energy is responsible for the safe storage of spent fuel in accordance with the State of Florida and NRC regulations. Responsibility for planning and implementing all emergency measures rests with Duke Energy.

The CR-3 ISFSI Organization has an inherent emergency response/RECOVERY function in its overall management and operation. This function can be delineated by reviewing management structure and responsibilities as follows:

- 1. ISFSI Site Director**

The ISFSI Site Director is directly responsible for the operation of the CR-3 ISFSI and has ultimate responsibility for the overall effectiveness of the CR-3 IOEP.

- 2. ISFSI Manager - Operations and Maintenance**

The ISFSI Manager - Operations and Maintenance reports to the ISFSI Site Director and is responsible for the safe operation and maintenance of the CR-3 ISFSI facility.

- 3. ISFSI Shift Supervisor (ISS)**

The ISS reports to the ISFSI Manager - Operations and Maintenance and is at CR-3, 24-hours a day, and is the senior management position during off-hours. This position is responsible for monitoring conditions at the CR-3 ISFSI.

## **5.2 EMERGENCY RESPONSE AND RESPONSIBILITIES**

The ISFSI Shift Supervisor (ISS) has the responsibility and authority to declare an emergency and initiate appropriate actions in accordance with written procedures to mitigate the consequences. When an off-normal, natural phenomenon, or accident event becomes apparent, the ISS shall assess the condition and declare an emergency if warranted. When an emergency is declared the ISS assumes the position of the Emergency Coordinator (EC).

The EC is responsible for the direction of all activities at the ISFSI site during an emergency. Should evaluation indicate the need, the EC has the authority to direct any or all personnel to relocate from the ISFSI and surrounding area and to notify all applicable agencies of the ISFSI status. The EC ensures that appropriate actions are taken to mobilize emergency teams and to notify management and applicable off site supporting organizations and regulatory agencies as necessary.

The functions associated within the EC's scope of responsibilities are specified in Table 6-1. The EC does not have concurrent duties which conflict with these responsibilities. At the direction of the EC, additional personnel may be activated to support the on-shift staff.

A Resource Manager assists in assessing the event and obtaining needed resources.

### **5.3 OFFSITE RESPONSE ORGANIZATIONS (ORO)**

Response organizations are available on a continuous basis and interrelate to receive notifications and communications and provide medical and law enforcement support to the CR-3 ISFSI.

#### **5.3.1 FLORIDA STATE WATCH OFFICE (SWO)**

The Florida State Watch Office (SWO) is the primary point of contact for the State of Florida for the purpose of notification of an emergency declaration. Notification of an emergency will be made to the SWO within 60 minutes after an emergency declaration or change in classification. The SWO will notify the Division of Emergency Management (DEM) and Citrus County officials of an emergency at the CR-3 ISFSI.

The SWO is available on a 24-hour basis to receive emergency communications from CR-3 ISFSI staff and, in turn, contact State and local emergency response organizations, as appropriate.

Emergency notification is received from the EC or designated alternate via the State Hot Ringdown Telephone System (SHRD), or other means necessary.

The Duty Officer notifies the Florida Division of Emergency Management (DEM) and Citrus County officials. The Duty Officer, with assistance from the DEM, then notifies appropriate State agencies.

### **5.3.2 FLORIDA DIVISION OF EMERGENCY MANAGEMENT**

The State of Florida Department of Community Affairs' DEM is responsible for coordinating Federal, State and local radiological emergency response activities, and for preparing and maintaining the State Plan.

The Director, DEM is responsible for coordinating DEM emergency response. The DEM receives notification of an emergency at the CR-3 ISFSI via the SWO; verifies the information contained in the notification messages; and alerts key State, Local and Federal emergency response personnel, as appropriate.

### **5.3.3 CITRUS COUNTY SHERIFF'S OFFICE, DIVISION OF EMERGENCY OPERATIONS, EMERGENCY MANAGEMENT SECTION**

Citrus County Sheriff's Emergency Management is responsible for coordinating law enforcement and fire support at the CR-3 ISFSI. Communications are maintained through the Citrus County 9-1-1 Dispatch Center.

The CCSO is responsible for coordinating emergency operations at the local level and for keeping local officials advised of law enforcement actions involving the CR-3 ISFSI.

The Citrus County EOC in Lecanto, Florida maintains 24 hour per day communications through the County's Fire Dispatch/EOC via commercial telephone.

#### **5.3.4 BAYFRONT HEALTH SEVEN RIVERS HOSPITAL**

Bayfront Health Seven Rivers hospital in Crystal River, Florida serves as the hospital to treat injuries resulting from any non-radiological or radiological emergency situation at the CR-3 ISFSI.

The hospital will acknowledge and respond to all emergency medical requests from the Emergency Response Organization and management at the CR-3 ISFSI.

Treatment will be provided for non-radiological and radiological injuries. The hospital will maintain communications with the CR-3 ISFSI. The hospital will maintain communications with the Citrus County EOC on support needs or other agencies as appropriate.

The hospital will furnish the services of physicians to injured persons. The hospital will accept all patients dispatched from the CR-3 ISFSI. If necessary, the hospital will utilize radiological support provided by CR-3 ISFSI Staff.

#### **5.3.5 LOCAL EMERGENCY MEDICAL SERVICES**

Ambulance service is available 24 hours per day to provide assistance in the event of an emergency at the CR-3 ISFSI via the Citrus County 9-1-1 Dispatch Center.

Upon request, local ambulance services will provide emergency medical services. It will maintain communication with the CR-3 ISFSI, Bayfront Health Seven Rivers hospital and/or CCSO on support needs.

Upon request from the CR-3 ISFSI EC or designee, ambulance service will be provided, which includes emergency medical treatment and/or transportation to a designated hospital facility. The service shall accept all patients dispatched from CR-3 ISFSI and, where necessary, shall utilize the radiological support provided by CR-3 Staff.

### **5.3.6 NUCLEAR REGULATORY COMMISSION**

The NRC is the primary Federal agency providing coordination and support to the licensee in the event of an emergency at the CR-3 ISFSI. NRC responsibilities are directed toward a coordination of Federal efforts to provide assistance to the licensee and State and local governments in their planning and implementation of emergency preparedness procedures.

The NRC response must be regarded primarily as supportive of, and not a substitute for, responsible action by Duke Energy and other key response organizations. The NRC must be continually informed of status and possible radiological consequences, and be frequently updated on plans for emergency and RECOVERY ACTIONS and needs for assistance.

In the event of an emergency at the CR-3 ISFSI, the NRC Operations Center in Rockville, Maryland will be notified immediately after notification of the SWO and not later than 60 minutes after declaration of an emergency classification or change in classification. Classification information and radiological information are communicated to this office over a dedicated telephone line from the CR-3 ISFSI Emergency Response Facility. Emergency notification, ISFSI status information and radiological information is communicated via the Emergency Notification System (ENS). Other information is communicated via normal telephone service.

### **5.4 WRITTEN AGREEMENTS FOR EMERGENCY RESPONSE**

Discussions have been held and agreements reached and confirmed, in writing, with State, County and private sector organizations having responsibilities for coping with radiological emergencies. Appendix B contains a list of these agreements. A copy of each agreement is maintained on file.

## **6.0 EMERGENCY RESPONSE ORGANIZATION**

Emergency Response Organization (ERO) responsibilities for emergency response are listed in Table 6-1.

### **6.1 ON-SHIFT POSITIONS**

The personnel and resources of the CR-3 ISFSI organization maintain the capabilities necessary to respond to an emergency. All site activities are conducted under the direction and control of the ISFSI Manager - Operations and Maintenance. To provide support in required areas, the CR-3 ISFSI organization is broken down into functional areas headed by designated managers. As appropriate, these areas are further subdivided according to specific technical disciplines or support functions.

#### **6.1.1 ISFSI SHIFT SUPERVISOR (ISS) / EMERGENCY COORDINATOR (EC)**

The ISFSI Shift Supervisor (ISS) is at the CR-3 ISFSI on a 24-hour basis and is the senior management position during off-hours. This position is responsible for monitoring conditions at the CR-3 ISFSI. The ISS has the responsibility and authority to declare an emergency and to initiate appropriate actions in accordance with written procedures to mitigate the consequences of the emergency. The ISS will assume the position of EC upon declaration of an emergency and has the responsibility to notify the Resource Manager of an emergency at the CR-3 ISFSI.

The EC is responsible for the direction of all activities at the CR-3 ISFSI during any emergency. In accordance with site procedures, the EC shall evaluate the emergency and take necessary actions to mitigate the consequences. The EC has the authority to direct personnel to relocate or to direct activities on the Energy Complex as necessary to ensure personnel safety.

The EC is responsible for assuring that appropriate corrective and PROTECTIVE ACTIONS are taken to mobilize emergency response personnel and for notifying management and off site supporting organizations and regulatory agencies, as necessary.



#### **6.1.1 ISFSI SHIFT SUPERVISOR (ISS) / EMERGENCY COORDINATOR (EC) (Continued)**

Other responsibilities assumed by the EC associated with the functions listed in Table 6-1 include:

- Classification of the event (Cannot be delegated)
- Notification of Local, State and Federal agencies
- Authorization of radiation exposure in excess of 10 CFR 20 limits. (Cannot be delegated)
- Management of available station resources
- Initiation of mitigative actions
- Initiation of corrective actions
- Initiation of onsite protective actions
- Decision to request offsite police, fire, or ambulance assistance
- Augmentation of the emergency staff, as deemed necessary
- Coordination of Security activities
- Termination of the emergency condition when appropriate
- Performance of initial radiological assessment
- Maintaining a record of event activities
- Suspend security measures

#### **6.1.2 SECURITY**

Security staffing is maintained in accordance with the CR-3 ISFSI Security Plan.

## **6.2 CR-3 ISFSI AUGMENTED EMERGENCY RESPONSE ORGANIZATION**

Duke Energy maintains the necessary personnel and resources to support the CR-3 ISFSI EC in responding to an emergency.

### **6.2.1 RESOURCE MANAGER**

The Resource Manager will be in contact with the EC within two hours of classification. The Resource Manager will augment the EC by assisting in assessing the emergency condition (refer to Table 6-1) and coordinating required resources, including public information interface. The Resource Manager does not need to physically report to CR-3 to perform their responsibilities.

### **6.2.2 RADIOLOGICAL ASSESSMENT PERSONNEL**

For a declared emergency involving radiological consequences (EU1), a minimum of one person trained in radiological monitoring and assessment will report to the CR-3 ISFSI within four hours of the emergency declaration to assist the EC.

### **6.2.3 MEDICAL RESPONSE PERSONNEL**

Individuals trained in first aid will be available. Medical supplies are available at the CR-3 ISFSI. First aid assistance is designed to handle a wide range of injuries. This task is accomplished by on-site individuals trained in basic first aid procedures.

### **6.2.4 FIRE RESPONSE**

Firefighting response at the CR-3 ISFSI is implemented in accordance with the CR-3 ISFSI Fire Protection Plan. Citrus County Fire Rescue is designated to provide response and support services as requested. The nearest staffed fire department is approximately 10 miles away from the CR3 ISFSI, which allows for a timely response from the initial notification.

### **6.2.5 CORPORATE ORGANIZATION**

In the event of an emergency at the CR-3 ISFSI that requires personnel and other support resources beyond those available within the CR-3 ERO, support is available from other Duke Energy facilities and can be requested from various contractors. Additional support to CR-3 is available from off-site organizations, as previously discussed in Section 5.0 of this Plan.

#### **6.2.6 OFFSITE RESPONSE ORGANIZATIONS (ORO)**

Additional support is available from OROs, as previously discussed in section 5.3 of this IOEP.

**TABLE 6.1**  
**EMERGENCY RESPONSE ORGANIZATION STAFFING AND RESPONSIBILITIES**

FUNCTIONAL AREA	LOCATION	ON-SHIFT STAFF	AUGMENTED OFFSITE RESPONSE
Assessment of Condition (Emergency Declaration)	Emergency Response Facility	EMERGENCY COORDINATOR	Resource Manager
Emergency Direction and Control	Emergency Response Facility	EMERGENCY COORDINATOR	-----
Notification/Communication	Emergency Response Facility	EMERGENCY COORDINATOR	-----
Radiological Accident Assessment and Protective Actions	Emergency Response Facility/ On Scene	EMERGENCY COORDINATOR	Resource Manager
			Augmentation Responder - <b>Note 1</b>
Corrective Actions	Emergency Response Facility/ On Scene	EMERGENCY COORDINATOR	-----
Firefighting	On Scene	Per CR-3 ISFSI Fire Protection Plan	Offsite Response Organization
Rescue Operations	On Scene	---	Offsite Response Organization
First Aid	On Scene	On-Shift Personnel	---
Security	Per ISFSI Security Plan	Per ISFSI Security Plan	N/A

**Note 1: For a declared emergency involving radiological consequences (EU1), a minimum of one person trained in radiological monitoring and assessment will report to the CR-3 ISFSI within four hours of the emergency declaration.**

## **7.0 EMERGENCY RESPONSE SUPPORT AND RESOURCES**

Response support organizations from the local, State, Federal, and private sectors available to assist in an emergency at the CR-3 ISFSI are identified and described in Section 5.0.

CR-3 maintains agreements with organizations that can be relied upon in an emergency to provide assistance. The agreements are listed in Appendix B.

## **8.0 EMERGENCY CLASSIFICATION SYSTEM**

### **8.1 STANDARD CLASSIFICATION OF EMERGENCIES**

Duke Energy utilizes NEI 99-01, "Development of Emergency Action Levels for Non-Passive Reactors" Rev. 6, as its basis for classifying emergencies. The classification system referenced in NEI 99-01, Rev. 6 has been endorsed by the NRC and offers a standard method for classifying emergencies. EALs are addressed in site procedures and the ISFSI Only Emergency Plan EAL Basis Manual (IOEP EALBM).

This IOEP addresses two (2) classifications of emergencies (UNUSUAL EVENT and ALERT), which represent a hierarchy of emergencies based on potential accidents that could occur at the CR-3 ISFSI. Once indications are available that an EAL is met, the event is assessed and classified, and the corresponding emergency classification level is promptly declared as soon as possible.

#### **8.1.1 Unusual Event**

Events are in progress or have occurred which indicate a potential degradation of the level of safety of the CR-3 ISFSI or indicate a security threat to facility protection has been initiated. No release of radioactive material requiring off-site response or monitoring are expected. The State of Florida and the NRC are notified of an UNUSUAL EVENT.

The purpose of the UNUSUAL EVENT classification is to bring the on-shift staff to a state of readiness and to provide for systematic handling of event information and its related decision making.

### 8.1.2 **Alert**

Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the CR-3 ISFSI or a security event that involves probable life threatening risk to site personnel or damage to ISFSI equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA PAG exposure levels.

As in the case of the UNUSUAL EVENT, the ALERT classification includes emergency situations which are not expected to threaten the public, but for which notification of the State of Florida and the NRC is required.

## 8.2 **EMERGENCY ACTION LEVELS AND POSTULATED ACCIDENTS**

Both emergency classifications are characterized by EALs consisting of specific instrument readings and/or observations which are used to tell the CR-3 ISS that an initiating condition has been met. These EALs are used to assure that the initial classification of emergencies can be accomplished rapidly, allowing for the prompt identification of the nature of mitigating activities needed.

EALs and Initiating Conditions are provided under the following categories for the CR-3 ISFSI:

- ISFSI Malfunction
- Hazards and Other Conditions

The ISFSI UFSAR describes the Design Basis Accidents (DBAs) applicable to the CR-3 ISFSI, along with the radiological dose calculation results. Specific guidance for classifying emergencies is found in site procedures and the ISFSI Only Emergency Plan EAL Basis Manual (IOEP EALBM).

EALs shall be reviewed with State of Florida and Citrus County government authorities on an ANNUAL basis.

## **9.0 NOTIFICATION METHODS AND PROCEDURES**

To provide prompt notification of affected personnel and emergency response organizations in the event of an emergency at the CR-3 ISFSI, Duke Energy has established means for notification and dissemination of emergency messages.

### **9.1 BASIS FOR NOTIFICATION**

The notification of personnel and emergency response organizations is commensurate with the hazard posed by the emergency. The EMERGENCY CLASSIFICATION SYSTEM described in Section 8.0 is the primary bases for notification and has been mutually agreed upon by applicable State and Federal response organizations.

The EC is responsible for identifying the appropriate emergency classification, declaring the emergency and initiating emergency notifications.

### **9.2 MEANS OF NOTIFICATION**

Various communications systems, as described in Section 10.0 are available to perform emergency notifications. The EC is the primary individual for initiating notifications; however, the EC may designate an individual to carry out appropriate notifications. Implementing procedures and various directories identify organizations and individuals to be notified and contain appropriate listings of telephone numbers.

The following sections describe the means of notifying, alerting, and mobilizing the various emergency response organizations or individuals.



### **9.2.1 CR-3 ISFSI STAFF**

Following declaration of an emergency, the EC will notify the Resource Manager. The Resource Manager will provide support to the EC as described in Section 6.0.

Notifications to other management and key personnel will be made as in accordance with established procedures. These notifications will be completed via the on-site telephone system, or other commercial means which may include land line and/or wireless devices.

### **9.2.2 FOSSIL-HYDRO PERSONNEL**

Upon declaration of an emergency, the EC or a delegate will notify the Fossil-Hydro facilities by telephone or other available means, and an appropriate response will be initiated. The EC or a delegate will provide further instructions, as required.

### **9.2.3 NUCLEAR REGULATORY COMMISSION**

The NRC Operations Center will be notified of an emergency via the Event Notification System (ENS) telephone line. Upon contact with the NRC, a description of the emergency is provided, along with potential consequences. Commercial phone lines will be used as a backup means of notification in the event of failure of the ENS.

### **9.2.4 FLORIDA STATE WATCH OFFICE (SWO)**

The Florida State Watch Office (SWO) will be notified of an emergency via the State Hot Ring Down (SHRD) telephone line. The commercial telephone systems serve as back-up communications systems. Upon contact, the content of the Florida Nuclear Plant Emergency Notification Form will be provided. The SWO will notify the Florida DEM and Citrus County officials of an emergency at the CR-3 ISFSI.

### **9.2.5 SUPPORT ORGANIZATIONS**

Medical, local law enforcement agency, and firefighting support services are primarily notified for assistance via the public 9-1-1 process. Requests for support services are the responsibility of the EC.

### **9.3     EMERGENCY MESSAGES**

Notification of an emergency is provided verbally to the SWO based on the content of the Florida Nuclear Plant Emergency Notification Form. The form may also be transmitted electronically. The content of the initial notification and follow-up message form has been established in conjunction with the State of Florida and includes the date and time of the incident, the class of emergency, and the EAL. Appropriate identification of the caller and time of the notification are also provided.

As additional information describing the emergency situation and local conditions becomes available, supplemental messages containing additional detail are provided.

## 10.0 **EMERGENCY COMMUNICATIONS**

Several modes of communication are available to transmit information at the CR-3 ISFSI; throughout the Crystal River Energy Complex; and to various locations off-site during normal and emergency conditions. In the event of an emergency at the CR-3 ISFSI, these communications systems provide the appropriate means for alerting or activating emergency personnel in each response organization and allow continued means for contact throughout the emergency.

The various communications systems provided for both on-site and off-site communications are used on a regular basis or tested periodically in accordance with established procedures. Periodic testing or frequent use of each system is conducted as follows:

<b><u>System</u></b>	<b><u>Use/Testing</u></b>
Commercial Telephones	Frequent Use
Portable UHF Radios	Frequent Use
SHRD	Tested Monthly
ENS	Tested Monthly

All systems are available at the CR-3 Emergency Response Facility on a 24-hour basis to allow prompt notification and activation of emergency response organizations.

## **11.0 PUBLIC INFORMATION**

The EC or Resource Manager will notify Duke Energy Corporate Communications following an emergency declaration. The Corporate Communications will be notified at the company's Charlotte headquarters and a near-site response team may be established for the CR-3 ISFSI.

The near-site response team will be staffed with a company spokesperson and media communicators, who will provide local interaction with the media. If an event occurs at the CR-3 ISFSI, information will be disseminated to the public in a timely manner.

Briefings with media organizations will be coordinated between Duke Energy Corporate Communications and the near-site response team per Corporate Communications protocols.

## **12.0 EMERGENCY FACILITY AND EQUIPMENT**

Adequate emergency facilities and equipment to support the emergency response are provided and maintained. This section of the IOEP identifies and describes the emergency response facility, assessment equipment, the first aid and medical facilities, and protective equipment and supplies that can be utilized during an emergency.

### **12.1 EMERGENCY RESPONSE FACILITY (ERF)**

The emergency command and control functions are managed within the ERF. Within the ERF the EC (or other personnel as directed) can assess conditions; evaluate the magnitude and potential consequences of abnormal conditions; initiate preventative and corrective actions; and perform notifications. The ERF provides sufficient space to accommodate anticipated response personnel and provides availability of communication systems as specified in Section 10.0. Radiological conditions as a result of DBAs specified in the ISFSI storage system UFSARs do not inhibit staffing of the ERF.

### **12.2 EMERGENCY EQUIPMENT**

This section describes the monitoring instruments used to initiate emergency measures and provide continuing assessment of conditions throughout the course of an emergency.

#### **12.2.1 PORTABLE RADIATION AND CONTAMINATION MONITORING INSTRUMENTS**

Duke Energy maintains portable radiation and contamination monitoring equipment necessary for monitoring the conditions of the CR-3 ISFSI. These instruments are normally utilized and maintained by the Radiation Protection Group and are available for emergency use.

#### **12.2.2 COMMUNICATION SYSTEMS**

Communication systems are identified and tested as described in Section 10.

### **12.3 EMERGENCY SUPPLIES**

Emergency equipment and supplies necessary to carry out the provisions of the IOEP and support procedures are maintained at the Emergency Response Facility.

Table 12.1 lists typical emergency equipment and supplies.

Emergency kit contents listed in Table 12.1 are inspected, inventoried, and operationally checked at least quarterly and anytime a kit is opened and used.

Sufficient reserves of instruments/equipment are provided to replace those which are removed from emergency kits for calibration or repair. Calibration of instruments has been established at intervals recommended by instrument suppliers, or as required by Federal regulations.

### **12.4 FIRST AID FACILITIES**

First aid supplies and equipment are located at the CR-3 ISFSI. Qualified personnel are available 24 hours per day to provide medical treatment as referenced in Section 16.0.

Radiological wound monitoring on-site is performed using an appropriate instrument. If the severity of the wound restricts decontamination efforts by radiation protection personnel, the injured personnel will be referred to off-site medical personnel or transported to an off-site medical facility for treatment and further decontamination.

**TABLE 12.1**

**TYPICAL EMERGENCY EQUIPMENT/SUPPLIES**

**Kit Contents**

Compass	Pens, Pencils
Protective Clothing	Calculator
Air Sampler Heads	Plant Survey Map
Tape, Barricade	Area Map
Thermoluminescent Dosimeter (TLD) Badges	Tape, Masking
Radiation Signs	HP Probes
Plastic Rain Gear	Check Source
Smears	Area Monitor (or Electronic Dosimeters)
Air Filters, Particulate	Batteries
Charcoal Cartridges	Flashlight
Felt Marker, Black	Labeled Envelopes
Shoe Covers	SH-4 Sample Mount and Holder
Gloves	Bottle, for water samples
Pad Paper	Electronic Dosimeters

### **13.0 ACCIDENT ASSESSMENT**

Effective response to a potential emergency situation requires assessment to determine the nature of the emergency and its actual and potential consequences. Duke Energy has established various methods to evaluate and monitor the effects of a potential emergency at the CR-3 ISFSI and has the appropriate means to assure adequate assessment.

The ASSESSMENT ACTIVITIES required to evaluate a particular emergency depend on the specific nature and classification of the emergency. The ISS/EC is responsible for the initial measurement of ISFSI dose rates after an off-normal, natural phenomena, or accident event. The EALs identify the parameter value to determine the emergency condition. Classification of events is performed by the ISS/EC in accordance with the EAL scheme.

If the measured ISFSI dose rates exceed the EAL threshold, the ISS/EC then ensures a radioactive RELEASE assessment in the vicinity of the affected storage module or cask is performed. After completing the assessment, the EC will contact the Resource Manager for assistance in interpreting the radioactive RELEASE assessment results. Notification of the radiological RELEASE assessment is in accordance with Section 9.0.



## **14.0 PROTECTIVE ACTIONS**

Protective actions for onsite personnel are provided for their health and safety. Implementation guidelines for onsite protective actions are provided in implementing procedures.

Additionally, implementing procedures provide for a range of protective actions (e.g. relocation of personnel and personnel take cover) to protect onsite personnel during HOSTILE ACTIONS.

### **14.1 CR-3 ISFSI ACCOUNTABILITY**

The EC has the authority to initiate personnel ACCOUNTABILITY of the CR-3 ISFSI.

ACCOUNTABILITY should be considered and used as a protective action whenever a risk to health or safety exists and prudence dictates. If personnel ACCOUNTABILITY is required, at the direction of the EC, all individuals at the facility (including employees without emergency assignments, visitors and contractor personnel) shall be notified of the emergency.

When ACCOUNTABILITY is initiated, personnel will stop work, shut down potentially hazardous equipment, and proceed to the pre-designated LOCAL ASSEMBLY AREAS. ACCOUNTABILITY will take place and the results will be reported to the EC when requested.

ACCOUNTABILITY of all personnel inside the ISFSI PROTECTED AREA should be accomplished within 60 minutes after event classification and maintained thereafter at the discretion of the EC. If personnel are unaccounted for, teams shall be dispatched to locate the personnel.

#### **14.2 CRYSTAL RIVER ENERGY COMPLEX ASSEMBLY, SHELTERING, OR RELOCATION**

Other areas of the Crystal River Energy Complex may be affected by the need to relocate personnel. If required, the EC will determine the specific areas that need to have personnel relocated. Personnel and visitors located outside of the ISFSI Protected Area but within the SITE BOUNDARY will be directed to report to an assembly area or exit the site as appropriate. Relocation of personnel in these areas of the Crystal River Energy Complex will be in accordance with established procedures. The EC is responsible for controlling access to the CR-3 ISFSI site when the IOEP is activated.

## **15.0 RADIOLOGICAL EXPOSURE CONTROL**

CR-3 maintains a radiological exposure control program to assure that protection against radiological exposure, as set forth in 10 CFR Part 20 and Chapter 170J 1 of the State of Florida Statutes, is provided. This program is implemented through the "Radiological Protection Standard" which covers both normal and emergency radiation protection measures.

Means for controlling radiological exposures in an emergency are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

### **15.1 EXPOSURE GUIDELINES**

During an emergency, doses above normal occupational radiation exposure limits may be authorized by the EC for activities such as saving a life, preservation of valuable equipment, or controlling exposure. Table 15.1 provides exposure guidelines for on-site emergency activities.

## **15.2 RADIATION PROTECTION**

The purpose of a Radiation Protection Program is to assure that radiation doses received by personnel are kept as low as reasonably achievable and do not exceed the prescribed limits for both normal and emergency conditions. The established measures to provide this assurance include access control, personnel monitoring, and contamination control.

### **15.2.1 ACCESS CONTROL**

During a declared emergency, radiological surveys of the ISFSI pad area will be performed to determine the actual extent of the radiological concern. As necessary, the EC will ensure RCAs and access controls are established to prevent personnel from entering the area. RECOVERY and corrective actions will be planned and executed in a manner that minimizes exposure to personnel.

### **15.2.2 PERSONNEL EXPOSURE MONITORING**

Personal dosimeters are utilized to monitor the exposure of personnel during normal or emergency conditions. Adequate supplies of dosimeters are maintained for use during an emergency. Procedures describe in detail the types of personal dosimeter devices, the manner in which they are to be used, who is to wear them, and how they are to be cared for.

Emergency worker dose records are maintained in accordance with Radiation Protection procedures.

### **15.3 CONTAMINATION CONTROL**

Various contamination control measures are utilized. These include access control measures and means for the decontamination of personnel, areas, and equipment. These activities are addressed in facility procedures and are briefly described below.

All personnel are monitored for radioactive contamination prior to leaving the site. During normal or emergency conditions, contamination should be removed from any part of a person's body prior to their leaving the RCA. All personnel decontamination, even during an emergency, will be performed under the supervision of the Radiation Protection Group and in accordance with established procedures.

Portable contamination monitoring instruments are available to frisk personnel for potential contamination.

Documentation of surveys, contamination, and decontamination activities shall be maintained in accordance with Radiation Protection procedures.

**TABLE 15.1****GUIDELINES FOR EMERGENCY RESPONSE WORKER EXPOSURE**

ACTIVITY	GUIDELINE	CONDITION
All occupational exposures	5 rem	All reasonably achievable actions have been taken to minimize dose.
Protecting valuable property necessary for public welfare.	10 rem <sup>a</sup>	Exceeding 5 rem unavoidable and all appropriate actions taken to reduce dose. Monitoring available to project or measure dose.
Lifesaving or protection of large populations	25 rem <sup>b</sup>	Exceeding 5 rem unavoidable and all appropriate actions taken to reduce dose. Monitoring available to project or measure dose.

Notes: a For potential doses >5 rem, medical monitoring programs should be considered.

b In the case of a very large incident, consider need to raise property and lifesaving response worker guidelines.

**NOTE:** Reference for this table is Table 2-2 in the EPA PAG Manual.

**NOTE:** The dose limits listed above are in addition to any annual occupational dose already received.

## **16.0 MEDICAL AND HEALTH SUPPORT**

Medical assistance is available on-site and off-site for treatment of CR-3 ISFSI personnel. Various means of transportation are also available to transport individuals for radiological and non-radiological injuries.

The individuals and organizations providing emergency medical assistance as identified in this section either have the capability for evaluation of radiation exposure and uptake or they are provided this capability from Duke Energy in the form of personnel and/or equipment. Duke Energy assures that persons providing these services are adequately prepared to handle contaminated individuals through detailed training classes, drills and exercises. Letters of Agreement with off-site organizations and individuals for medical support are listed in Appendix B.

### **16.1 ON-SITE FIRST AID**

First aid assistance at the CR-3 ISFSI is designed to handle a wide range of injuries. This task is accomplished by medical response personnel. The medical response personnel are on-site individuals trained in basic first aid procedures. Medical response personnel are trained to handle injured personnel, with or without radiological considerations.

### **16.2 MEDICAL TRANSPORTATION**

Transportation of injured personnel is available via local emergency medical services, other Duke Energy vehicles, or private vehicles. When personnel are transported to Bayfront Health Seven Rivers hospital while in a contaminated condition, a person trained in radiological monitoring will be dispatched to monitor and maintain radiological controls.

### **16.3 OFF-SITE MEDICAL SUPPORT**

The Bayfront Health Seven Rivers hospital in Crystal River, Florida has medical facilities capable of handling various types of injuries. Bayfront Health Seven Rivers hospital is capable of treating patients with injuries of a non-radiological or radiological nature.

Bayfront Health Seven Rivers hospital will provide for hospital treatment, medical examinations, and laboratory services for those Duke Energy employees, and other persons designated by Duke Energy. Medical records, including bioassay records, will be maintained permanently by the hospital.

When local facilities are considered inadequate because of the nature or severity of the injury sustained, the injured person may be referred to a trauma center in Florida or to Oak Ridge, Tennessee - REAC/TS for hospitalization. Oak Ridge Associated Universities (ORAU) operates a research hospital in Oak Ridge, Tennessee for the U.S. Department of Energy.

## **17.0 EMERGENCY TERMINATION AND RECOVERY**

Duke Energy has established general plans described in the following sections to yield RECOVERY from potential emergencies at the CR-3 ISFSI. The recovery organization will be based on the normal Duke Energy organization and would function with the senior management position being responsible for site activities.

### **17.1 EMERGENCY TERMINATION AND NOTIFICATION**

Termination of an emergency status is the responsibility of the EC. The EC is also responsible for providing notification of the emergency termination and initiation of RECOVERY operations to the NRC, State of Florida (SWO), the CR-3 ERO, and other organizations that may be providing on-site support.

### **17.2 RECOVERY OPERATIONS**

RECOVERY operations begin immediately following emergency termination and will address the specific emergency circumstances.

RECOVERY planning includes equipment to be repaired or replaced, licensing implications, special training requirements, offsite support, and determination of causes and consequences. Site procedures addressing RECOVERY operations provide an outline for a short term RECOVERY plan.

The ISFSI Site Director shall be responsible for the development and implementation of the RECOVERY plan and shall provide for detailed monitoring of the implementation and status reporting. The ISFSI Site Director also has the authority to revise or halt activities as circumstances dictate.

The RECOVERY will be terminated by the Duke Energy senior management position after the ISFSI is returned to a stable condition.



## **18.0 EXERCISE AND DRILLS**

Periodic exercises are conducted to evaluate major portions of emergency response capabilities. Periodic drills are conducted to develop and maintain key skills.

Deficiencies as a result of exercises or drills are identified and corrected.

### **18.1 BIENNIAL EXERCISE AND DRILL**

A Biennial Exercise is conducted and tests the capability and a major portion of the basic elements existing within emergency preparedness plans and organizations. The State of Florida, the Citrus County Sheriff's Office and local support organizations (firefighting, ambulance and medical services) will be invited to participate to verify this capability to respond to an emergency scenario requiring response.

Drills are conducted for the purpose of testing, developing, and maintaining the proficiency of emergency responders. Exercise and Drill scenarios will include, at a minimum, the following:

- Basic objective(s) of the exercise / drill.
- Date(s), time period, place(s), and participating organizations.
- A time schedule of real and simulated initiating events.
- A narrative summary describing the conduct of the drill to include such items as simulated casualties, offsite fire assistance, rescue of personnel, and use of protective clothing.

A remedial exercise will be conducted if it is determined that the emergency plan was not satisfactorily tested during the biennial exercise such that the NRC cannot find reasonable assurance that adequate protective measures can be taken in the event of a radiological emergency.

## 18.2 TRAINING DRILLS

Training drills serve as elements of training programs in which individuals demonstrate their ability to perform assigned emergency functions. During a training drill, on-the-spot correction of erroneous performance should be made and a demonstration of the proper performance should be offered. Problems should be noted for discussion as part of the training drill critique. Training drills shall be conducted at the FREQUENCY indicated below:

### a. Communication Drills

- Monthly – Communication between the CR-3 ISFSI and the Florida State Watch Office (SWO) shall be demonstrated.

These drills shall also include the aspect of understanding the content of messages.

### b. Medical Emergency Drills

- ANNUAL - This drill will involve medical response personnel and include a simulated contaminated individual and may also allow provisions for participation by local support agencies (i.e., ambulance and off-site medical facilities). The off-site portions of the drill may be performed as part of the Biennial Exercise.

### c. Radiological Monitoring

- ANNUAL - A drill involving radiation monitoring personnel to demonstrate ability to perform radiological survey and assessment.

### d. Staff Augmentation Drills

- ANNUAL – An unannounced off-shift staff augmentation drill is conducted annually. This drill shall involve implementation of the ERO callout system procedure and documentation of the estimated response time for each responder. This drill shall serve to demonstrate the capability to augment the EC after an emergency classification.

Drill requirements may be satisfied as part of the Biennial Exercise. A critique shall be conducted as soon as practical after each drill or exercise. The critique shall evaluate the ability of the organization to respond to a simulated emergency situation.

### **18.3 CRITIQUES**

A critique is performed as soon as practicable after training drills and exercises to evaluate the ability of the participating organizations to respond as indicated in this IOEP. Recommendations for revisions to the CR-3 IOEP, the implementing procedures and/or the upgrading of emergency equipment and supplies as a result of the drill or exercise should be forwarded to the Emergency Planning Coordinator who shall review, coordinate, and assure that appropriate changes are implemented to correct any deficiencies. A written evaluation shall result from the critique of the Biennial Exercise. The ISFSI Site Director shall assure that identified deficiencies are corrected.

## **19.0 EMERGENCY RESPONSE ORGANIZATION TRAINING**

Radiological emergency response training is provided to those who may be called on to assist in an emergency. All personnel at the CR-3 ISFSI who fill required positions in the ERO will take part in a training program to assure adequate preparedness to assist in an emergency situation. Specific off-site support resources that may be called upon for emergency assistance will also be invited to participate in appropriate training programs. Emergency response personnel in the following categories receive initial training and ANNUAL retraining:

### **19.1 ISFSI SHIFT SUPERVISORS/EMERGENCY COORDINATORS AND RESOURCE MANAGERS**

These following subjects shall be covered as a minimum on an ANNUAL basis:

- EMERGENCY ACTION LEVEL Classification.
- Federal, State and local government notification procedures.
- ERO Activation.
- Dose rate meter operation.
- Radioactive RELEASE assessment.
- Emergency exposure control.
- PROTECTIVE ACTIONS for onsite personnel.
- ISFSI Design Basis Accidents.
- Review of applicable drill identified deficiencies and Human Performance Concerns.

### **19.2 MEDICAL RESPONSE PERSONNEL**

All medical response personnel are provided training. Training for personnel assigned to provide first aid support shall include courses equivalent to Red Cross Multi-Media.

### **19.3 RADIATION MONITORING PERSONNEL**

Initial and ANNUAL retraining for radiation monitoring personnel consists of the following topics:

- Use of Radiation Protection procedures.
- Use of emergency survey equipment.
- Communications.
- Field surveys.
- The role of dose assessment in an emergency.
- Monitoring of radioactive releases.
- Review of applicable drill identified deficiencies and Human Performance Concerns.

### **19.4 MEDICAL SUPPORT PERSONNEL**

Medical Support training is offered annually to Bayfront Health Seven Rivers hospital and local emergency medical services. The training will be structured to meet the needs of the respective organization with respect to the nature of their support.

## **20.0 RESPONSIBILITY FOR THE PLANNING EFFORT: DEVELOPMENT, PERIODIC REVIEW AND DISTRIBUTION OF EMERGENCY PLANS**

### **20.1 EMERGENCY PLANNING COORDINATION**

The ISFSI Site Director has overall authority and responsibility for emergency response planning. The CR-3 ISFSI Emergency Planning Coordinator develops and updates emergency plans and coordinates these plans with other response organizations. In the event that licensing actions by the NRC or changes in the State agencies or other off-site resources impact this Plan, the Emergency Planning Coordinator is responsible for identifying the particular impact and necessary revisions to the Plan. The Emergency Planning Coordinator reports to the ISFSI Manager-Operations and Maintenance.

The Emergency Planning Coordinator training will consist of periodic reviews of Federal emergency preparedness requirements and guidance documents and various site-specific documents related to emergency preparedness. Training is supplemented primarily by on-the-job activities and attendance of short courses, seminars, or executive conferences that relate specifically to emergency preparedness.

### **20.2 PLAN/PROCEDURES REVIEW AND UPDATE**

The CR-3 IOEP should be reviewed and verified to be current on an ANNUAL basis by the Emergency Planning Coordinator. Revisions to the CR-3 IOEP and implementing procedures identified in Appendix A will be reviewed in accordance with 10 CFR 50.54(q) requirements.

Procedures listed in Appendix A shall be reviewed and verified to be current by the appropriate individual in accordance with established procedures. These procedures will be updated as appropriate and will consider improvements identified during drills and training.

## **20.2 PLAN/PROCEDURES REVIEW AND UPDATE (Continued)**

In addition, there shall be a quarterly review and update of the notification rosters used to activate and implement the Plan.

Review of the CR-3 IOEP and the plans of support organizations shall consider applicable emergency planning criteria and regulations promulgated by the NRC, as applicable to the CR-3 ISFSI.

In addition to the above reviews and updates, the Emergency Planning Coordinator shall review and update appropriate support agreements (see Appendix B) as required. Support plans for other groups such as the fossil plant, procurement, and Bayfront Health Seven Rivers hospital may also be reviewed periodically.

## **20.3 TRAINING**

The Emergency Planning Coordinator shall assist management in coordinating and/or providing emergency planning-related training. They shall assure that the training described in Section 19.0, is properly coordinated to assure adequate qualification, training, and retraining of personnel.

## **20.4 AUDITS**

Duke Energy maintains a Corporate Nuclear Oversight Section (NOS) that will support audits of the CR-3 IOEP according to Corporate NOS audit practices and instructions, which meet the requirements of 10 CFR 50.54(t).

## **ISFSI ONLY EMERGENCY PLAN**

### **APPENDIX A**

#### **CROSS REFERENCE IOEP SECTION TO PLANNING STANDARDS/REQUIREMENTS AND IMPLEMENTING PROCEDURES**



**APPENDIX A**

**CROSS REFERENCE IOEP SECTION TO PLANNING STANDARDS/REQUIREMENTS AND  
IMPLEMENTING PROCEDURES**

<b>Regulatory Requirement</b>	<b>Corresponding IOEP Section(s)</b>	<b>Procedure</b>
10 CFR 50.47(b)(1)	5.0	Not Applicable (N/A)
10 CFR 50.47(b)(2)	6.0	EM-502, ISFS-190
10 CFR 50.47(b)(3)	5.0, 7.0, Appendix B	AI-4000
10 CFR 50.47(b)(4)	8.0	IOEP EAL Bases Manual
10 CFR 50.47(b)(5)	9.0	EM-205, EM-502
10 CFR 50.47(b)(6)	10.0	AI-4000
10 CFR 50.47(b)(7)	11.0	EM-502
10 CFR 50.47(b)(8)	12.0	AI-4000
10 CFR 50.47(b)(9)	13.0	EM-502, ISFS-190
10 CFR 50.47(b)(10)	14.0	EM-205
10 CFR 50.47(b)(11)	15.0	EM-502, EM-504, HPP-334
10 CFR 50.47(b)(12)	16.0	AI-4000
10 CFR 50.47(b)(13)	17.0	EM-502
10 CFR 50.47(b)(14)	18.0	AI-4000, AI-4001
10 CFR 50.47(b)(15)	19.0	TPP-219
10 CFR 50.47(b)(16)	20.0	AI-4000
10 CFR 50.47(c)(2)	2.1	N/A
10 CFR Part 50, Appendix E IV		
10 CFR Part 50, Appendix E IV.A	5.0, 6.0, 7.0	EM-502, AI-4000
10 CFR Part 50, Appendix E IV.B	8.0, 13.0	IOEP EAL Bases Manual
10 CFR Part 50, Appendix E IV.C	8.0, 9.0	EM-502
10 CFR Part 50, Appendix E IV.D	9.0, 10.0	EM-502
10 CFR Part 50, Appendix E IV.E	12.0	N/A
10 CFR Part 50, Appendix E IV.F	18.0, 19.0	TPP-219
10 CFR Part 50, Appendix E IV.G	20.0	AI-4000
10 CFR Part 50, Appendix E IV.H	17.0	EM-502
10 CFR Part 50, Appendix E IV.I	14.0	EM-911D
10 CFR Part 50, Appendix E V	Appendix A	N/A
10 CFR Part 50, Appendix E VI	Not Applicable	N/A

## **ISFSI ONLY EMERGENCY PLAN**

### **APPENDIX B**

#### **AGREEMENTS WITH SUPPORTING ORGANIZATIONS**

## **AGREEMENTS WITH SUPPORTING ORGANIZATIONS**

The following agreements are reviewed on an ANNUAL basis and updated as necessary. The documents are kept on file at CR-3 and maintained by the Emergency Planning Group.

1. Citrus County Sheriff's Office
2. Bayfront Health Seven Rivers Hospital
3. Nature Coast EMS

## SUMMARY OF CHANGES

DRR 2248926

Page / Section	Change	Reason/References
Page 6-3 Section 6.2.3	Revised the section on Medical Response Personnel to reflect that on-site personnel will provide first aid response.	The ERC position has been eliminated. (LAR xxx).
Page 6-3 Section 6.2.4	Revised the section on Fire Response to reflect that firefighting response at the CR-3 ISFSI will be implemented in accordance with the CR-3 ISFSI Fire Protection Plan. Included discussion of Citrus County Fire Rescue response.	The ERC position has been eliminated. (LAR xxx).
Page 6-5 Table 6.1	Revised table to reflect changes made in Sections 6.2.3 and 6.2.4.	The ERC position has been eliminated. (LAR xxx).
Throughout	Changed references to Seven Rivers Regional Medical Center/SRRMC to Bayfront Health Seven Rivers hospital.	Editorial change. The name of the hospital has changed.
Page A-2	Added ISFS-190 to Appendix A, 10 CFR 50.47(b)(2) line item.	This procedure implements the CR-3 ISFSI Fire Protection Plan requirements.
Page B-1	Changed title of Appendix B from Permanently Defueled Emergency Plan to ISFSI Only Emergency Plan.	Editorial change to correct erroneous title.