



March 3, 2016

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

Serial No. 15-306A  
LIC/JG/R0  
Docket Nos. 50-305, 72-64  
License No. DPR-43

**DOMINION ENERGY KEWAUNEE, INC.**  
**KEWAUNEE POWER STATION**  
**SUPPLEMENT 1 AND RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION**  
**REGARDING LICENSE AMENDMENT REQUEST 259, ISFSI-ONLY EMERGENCY**  
**PLAN AND EMERGENCY ACTION LEVEL SCHEME**

By application dated September 14, 2015 (Reference 1), Dominion Energy Kewaunee, Inc. (DEK) requested an amendment to Facility Operating License Number DPR-43 for Kewaunee Power Station (KPS). The proposed amendment would revise the emergency plan and emergency action level (EAL) scheme. The proposed changes were submitted to the NRC for approval prior to implementation, as required under 10 CFR 50.54(q)(4), 10 CFR 50, Appendix E, Section IV.B.2, and 10 CFR 72.44(f).

Subsequently, the Nuclear Regulatory Commission (NRC) transmitted a request for additional information (RAI) regarding the proposed amendment (Reference 2). The RAI questions and associated DEK response are provided in Attachment 1 to this letter.

In response to the staff's RAIs regarding proposed changes to the emergency plan, DEK is revising the originally proposed amendment. Attachment 2 to this letter provides a supplemental description to the proposed amendment. Enclosure 1 to this letter provides the proposed revisions to the originally submitted emergency plan, in response to the RAI.

The analyses provided in the originally submitted amendment (Reference 1) remain applicable and bounding to the proposed revisions. The conclusions of the no significant hazards consideration and the environmental considerations contained in the originally submitted amendment are not affected by, and remain applicable to, this supplement.

The EAL scheme provided in the originally submitted amendment also remains applicable to this supplement.

The KPS Facility Safety Review Committee has reviewed this proposed revision to the originally submitted emergency plan and a copy of this submittal has been provided to the State of Wisconsin in accordance with 10 CFR 50.91(b).

The August 31, 2016 requested approval date for the submittal remains unchanged.

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Sincerely,

**Daniel G. Stoddard**  
Senior Vice President – Nuclear Operations

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Acknowledged before me this 3<sup>rd</sup> day of March, 2016

My Commission Expires: 12/31/16

**Notary Public**



**Notary Public**

**Notary Public  
Commonwealth of Virginia**

**Reg. # 7518653**

My Commission Expires December 31, 2016

1. Response to Request for Additional Information
2. Supplement 1, Discussion of Change and Technical Analysis

## 1. Supplement 1, ISFSI-Only Emergency Plan

1. Letter from Gianna C. Clark (DEK) to NRC Document Control Desk, "License Amendment Request 259, ISFSI-Only Emergency Plan and Emergency Action Level Scheme," dated September 14, 2015 [ADAMS Accession ML15261A238].
2. Email from Ted Carter (NRC) to Jack Gadzala (DEK), "KPS RAIs ISFSI EPlan and EALs (02-10-16) ML16041A156" dated February 10, 2016.

Commitments made in this letter: None.

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**ATTACHMENT 1**

**LICENSE AMENDMENT REQUEST 259  
ISFSI-ONLY EMERGENCY PLAN  
AND EMERGENCY ACTION LEVEL SCHEME**

**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION:**

**KEWAUNEE POWER STATION  
DOMINION ENERGY KEWAUNEE, INC.**

**LICENSE AMENDMENT REQUEST 259  
ISFSI-ONLY EMERGENCY PLAN  
AND EMERGENCY ACTION LEVEL SCHEME  
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION:**

By application dated September 14, 2015 (Reference 1), Dominion Energy Kewaunee, Inc. (DEK) requested an amendment to Facility Operating License Number DPR-43 for Kewaunee Power Station (KPS). The proposed amendment would revise the emergency plan and associated emergency action level (EAL) scheme. The revised emergency plan would be known as the ISFSI-Only Emergency Plan (IOEP). The proposed changes were submitted to the NRC for approval prior to implementation, as required under 10 CFR 50.54(q)(4), 10 CFR 50, Appendix E, Section IV.B.2, and 10 CFR 72.44(f).

Subsequently, the Nuclear Regulatory Commission (NRC) transmitted a request for additional information (RAI) regarding the proposed amendment (Reference 2). The RAI questions and associated DEK responses are provided below.

**NRC Question KPS-RAI-01**

Section 3.0, "Definitions and Acronyms," of the proposed ISFSI-Only Emergency Plan does not have the term "Hostile Force" as is contained in the NRC-approved PDEP. Please provide justification for removal of the definition from the emergency plan, or revise accordingly.

**Response:**

The term "Hostile Force" is not used within the KPS IOEP and therefore was eliminated during its development. The term is used within the ISFSI-Only Emergency Action Basis Document and is defined in Appendix B of the Basis Document.

However, for consistency with the existing KPS Emergency Plan, the definition from the Basis Document is being added to the proposed emergency plan. The added definition (which follows the definition of "Hostile Action") will read as follows.

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.

The proposed KPS IOEP has been revised (in IOEP Section 3.0) in response to the staff's question. Supplement 1 to the IOEP, addressing the staff's question, is provided as Enclosure 1 to this letter.

**NRC Question KPS-RAI-02**

Section 6.2 of the proposed ISFSI-Only Emergency Plan reflects a single augmented position being the Resource Manager (eliminating the Technical Director and Radiation Protection Director as augmented positions per the PDEP), who will be in contact with the Emergency Director (ED) within 2 hours of event classification. The Resource Manager is to assist the ED by assessing the emergency condition and coordinating required resources, including public information interface. Table 6-1 also lists additional responsibilities, including the Assessment of Condition, and Radiological Accident Assessment and Protective Actions. For a classified event involving radiological consequences (EU1), please explain how radiological monitoring and assessment will be performed in a timely fashion. Consider previous NRC approved precedence of the Zion Nuclear Power Station Defueled Station Emergency Plan, which maintains the minimum augmentation of the Radiation Protection Director within four hours for this type of event.

**Response:**

Based on NRC approved precedents, the following statement is being added to the ISFSI-Only Emergency Plan (at the beginning of the paragraph in Section 6.2 titled AUGMENTATION PERSONNEL).

For a classified event involving radiological consequences (EU1), a minimum of one person trained in radiological monitoring and assessment will report to the station within 4 hours of the emergency declaration.

For consistency between this added statement and Table 6-1, "Emergency Response Organization Staffing and Responsibility", a footnote is being added to Table 6-1 that refers to this responder. The added footnote, which is associated with the "Augmented Offsite Response" column for the functional area of "Radiological Accident Assessment and Protective Actions", will read as follows.

\*\* Augmentation responder as described in Section 6.2.

The proposed KPS IOEP has been revised (in IOEP Sections 6.2 and 6.3) in response to the staff's question. Supplement 1 to the IOEP, addressing the staff's question, is provided as Enclosure 1 to this letter.

**NRC Question KPS-RAI-03**

Section 6.1, "On-shift Positions," of the proposed ISFSI-Only Emergency Plan does not have the list of other responsibilities of the Emergency Director, as is contained in the NRC-approved Permanently Defueled Emergency Plan. The proposed plan references Table 6-1, "Emergency Response Organization Staffing and Responsibility," as providing this information. However, Table 6-1 provides a listing of functional areas and

not specific responsibilities. Please justify the omission of this information contained in the NRC-approved Permanently Defueled Emergency Plan, or revise accordingly.

**Response:**

The list of other responsibilities of the Emergency Director (ED) was considered as being redundant to Table 6-1 and other portions of the IOEP, and therefore omitted. However, in order to more clearly provide for a list of other responsibilities of the ED, a listing of other responsibilities assumed by the ED associated with the functions listed in Table 6-1 of the IOEP is being added (at the end of the section titled ISFSI Shift Supervisor (ISS)/EMERGENCY DIRECTOR (ED)). The changes to this section of the IOEP are as follows.

Other responsibilities assumed by the ED ~~are included~~ associated with the functions listed in Table 6-1 include:

- Notification of the emergency classification to the NRC, State of Wisconsin, and Kewaunee County
- Management of available station resources
- Initiation of mitigative actions
- Initiation of corrective actions
- Initiation of onsite protective actions
- Decision to call for 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

The proposed KPS IOEP has been revised (in IOEP Section 6.1) in response to the staff's question. Supplement 1 to the IOEP, addressing the staff's question, is provided as Enclosure 1 to this letter.

**NRC Question KPS-RAI-04**

Section 16.0, "Medical and Health Support," of the NRC-approved Permanently Defueled Emergency Plan provides the following information that is not included in the proposed ISFSI-Only Emergency Plan:

When personnel are transported to the Aurora Medical Center while in a contaminated condition, personnel trained in radiological monitoring will be dispatched to monitor and maintain radiological controls.

Please justify the omission of this information contained in the NRC-approved Permanently Defueled Emergency Plan, or revise accordingly, based on Planning Standard 10 CFR 50.47(b)(12) which was not exempted.

**Response:**

The following statement regarding transporting personnel to the Aurora Medical Center while in a contaminated condition is being added to end of Section 16.0, "Medical and Health Support," of the KPS ISFSI-Only Emergency Plan.

When personnel are transported to the Aurora Medical Center while in a contaminated condition, a person trained in radiological monitoring will be dispatched to monitor and maintain radiological controls.

The proposed KPS IOEP has been revised (in IOEP Section 16.0) in response to the staff's question. Supplement 1 to the IOEP, addressing the staff's question, is provided as Enclosure 1 to this letter.

**References**

1. Letter from Gianna C. Clark (DEK) to NRC Document Control Desk, "License Amendment Request 259, ISFSI-Only Emergency Plan and Emergency Action Level Scheme," dated September 14, 2015 [ADAMS Accession ML15261A238].
2. Email from Ted Carter (NRC) to Jack Gadzala (DEK), "KPS RAIs ISFSI EPlan and EALs (02-10-16) ML16041A156," dated February 10, 2016.



**ATTACHMENT 2**

**SUPPLEMENT 1:  
LICENSE AMENDMENT REQUEST 259  
ISFSI-ONLY EMERGENCY PLAN  
AND EMERGENCY ACTION LEVEL SCHEME**

**DISCUSSION OF CHANGE AND TECHNICAL ANALYSIS**

**KEWAUNEE POWER STATION  
DOMINION ENERGY KEWAUNEE, INC.**

**SUPPLEMENT 1  
LICENSE AMENDMENT REQUEST 259  
ISFSI-ONLY EMERGENCY PLAN  
AND EMERGENCY ACTION LEVEL SCHEME**

**DISCUSSION OF CHANGE AND TECHNICAL ANALYSIS**

**1.0 SUMMARY DESCRIPTION**

By application dated September 14, 2015 (Reference 1), Dominion Energy Kewaunee, Inc. (DEK) requested an amendment to Facility Operating License Number DPR-43 for Kewaunee Power Station (KPS). The proposed amendment would revise the emergency plan and emergency action level (EAL) scheme. The proposed changes were submitted to the NRC for approval prior to implementation, as required under 10 CFR 50.54(q)(4), 10 CFR 50, Appendix E, Section IV.B.2, and 10 CFR 72.44(f).

In response to NRC staff comments (Reference 2) regarding contents of the ISFSI-Only Emergency Plan (IOEP), DEK is revising the originally proposed amendment. The revised proposal adds additional information to the emergency plan.

The discussion of change and technical analysis for this supplement is provided below. Enclosure 1 to this letter provides the proposed emergency plan, incorporating the revisions affected by this supplement. The EAL scheme that was provided in Reference 1 remains unchanged and is applicable to this supplement. The analyses provided in Reference 1 remain applicable and bounding to this proposed change. The conclusions of the no significant hazards consideration and the environmental considerations contained in Reference 1 are not affected by, and also remain applicable to, this supplement.

**2.0 PROPOSED CHANGE**

This supplement to the proposed amendment would modify the KPS license with additional changes to the emergency plan as discussed in the response to the staff's Request for Additional Information (RAI) in Attachment 1. These additional changes consist of adding additional requirements to and enhancing the level of detail of the IOEP. Additionally, editorial changes were made to the emergency plan table of contents and list of tables to better align with the actual titles used in the emergency plan headers.

A markup of the revised IOEP (showing the changes) is enclosed with this supplement and replaces the originally submitted IOEP in its entirety. The ISFSI-Only EAL scheme and EAL Basis Document that were provided in the original submittal (as Enclosure 2 to Reference 1) remain unchanged.

### **3.0 TECHNICAL ANALYSIS**

The technical analyses provided in the originally submitted LAR 259 remain applicable to, and unaltered by, this supplement.

Enclosure 1 to this submittal provides a revised version (marked up to show changes) of the originally proposed Kewaunee Power Station (KPS) ISFSI-Only Emergency Plan (IOEP) for NRC review and approval. The revised IOEP incorporates additional requirements consistent with the applicable regulations stipulated in 10 CFR 50.47, "Emergency Plans," 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," and 10 CFR 72.44(f), "License conditions," and 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." The additional requirements incorporated into the IOEP in this supplement are bounded by the technical analyses provided in the originally submitted LAR 259.

The KPS ISFSI-Only EAL scheme and EAL Basis Document, which were previously provided for NRC review and approval as Enclosure 2 to Reference 1, are unaltered by this supplement. As stated in the original submittal, the proposed EALs are applicable to the ISFSI-only station condition, with all reactor fuel permanently removed from the spent fuel pool.

### **4.0 SUMMARY**

The proposed amendment (as modified by this supplement) would revise both the emergency plan and the emergency action level (EAL) scheme (including its basis document) to reflect the ISFSI-only condition of the station. The revised emergency plan and EAL scheme (including its basis document) were submitted to the NRC for approval prior to implementation, as required under Section IV.B.2 of Appendix E to 10 CFR Part 50 and 10 CFR 50.54(q)(4).

The proposed emergency plan does not meet all standards of 10 CFR 50.47(b) and requirements of 10 CFR 50, Appendix E. However, NRC previously approved exemptions from portions of 10 CFR 50.47(b), 10 CFR 50.47(c)(2), and 10 CFR 50, Appendix E, Section IV, by letter dated October 27, 2014 (Reference 4) that the proposed emergency plan would not have otherwise met. The proposed emergency plan (as modified by this supplement) continues to be predicated on these approved exemptions, which enable the emergency plan, as revised, to continue to meet the remaining applicable requirements in 10 CFR 50, Appendix E and the planning standards of § 50.47(b).

## **5.0 REGULATORY ANALYSIS**

### **5.1 No Significant Hazards Consideration**

The conclusions of the no significant hazards consideration contained in Reference 1 are not affected by, and remain applicable to, this supplement.

### **5.2 Applicable Regulatory Requirements/Criteria**

The applicable regulatory requirements/criteria contained in Reference 1 are not affected by, and remain applicable to, this supplement.

## **6.0 ENVIRONMENTAL CONSIDERATION**

The conclusions of the environmental considerations contained in Reference 1 are not affected by, and remain applicable to, this supplement.

## **7.0 REFERENCES**

1. Letter from Gianna C. Clark (DEK) to NRC Document Control Desk, "License Amendment Request 259, ISFSI-Only Emergency Plan and Emergency Action Level Scheme," dated September 14, 2015 [ADAMS Accession ML15261A238].
2. Email from Ted Carter (NRC) to Jack Gadzala (DEK), "KPS RAIs ISFSI EPlan and EALs (02-10-16) ML16041A156," dated February 10, 2016.
3. Nuclear Energy Institute (NEI) 99-01, Revision 6, "Methodology for Development of Emergency Action Levels for Non Passive Reactors," November 2012. (ADAMS Accession No. ML12326A805)
4. Letter from Thomas J. Wengert (NRC) to David A. Heacock (DEK), "Kewaunee Power Station – Exemptions from Certain Emergency Planning Requirements and Related Safety Evaluation (TAC NO. MF2567)," dated October 27, 2014.
5. NUREG-1738, "Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants," February 2001.
6. U.S. Environmental Protection Agency, "Protective Action Guide and Planning Guidance for Radiological Incidents," Draft for Interim Use and Public Comment, dated March 2013 (PAG Manual).

**ENCLOSURE 1**

**SUPPLEMENT 1  
LICENSE AMENDMENT REQUEST 259  
ISFSI-ONLY EMERGENCY PLAN  
AND EMERGENCY ACTION LEVEL SCHEME**

**ISFSI-ONLY EMERGENCY PLAN**

**KEWAUNEE POWER STATION  
DOMINION ENERGY KEWAUNEE, INC.**



<b><u>Title:</u></b>	<b>ISFSI-Only Emergency Plan (IOEP)</b>	
<b><u>Revision Number</u></b> <b>0 Draft F</b>		<b><u>Effective Date</u></b> <b>TDB</b>
<b><u>Revision Summary:</u></b> ISFSI-Only Emergency Plan (IOEP) describes the station's plan for responding to emergencies that may arise at the Kewaunee Power Station ISFSI.		

Table of Contents		
Section	Title	Page
1.0	Introduction 1.1 Purpose 1.2 Scope	4
2.0	Discussion 2.1 Overview of ISFSI-Only Emergency Plan (IOEP) 2.2 Facility Description	5
3.0	Definitions and Acronyms	6
4.0	References	9
5.0	Assignment of Responsibility 5.1 Emergency Response and Responsibilities 5.2 Offsite Response Organizations (ORO)	10
6.0	<u>Onsite Emergency Response Organizations (ERO)</u> 6.1 On-Shift Positions 6.2 Augmented Organization 6.3 Functional Responsibilities	11
7.0	<u>Offsite Emergency Response Support and Resources</u>	13
8.0	Emergency Classification System	14
9.0	Notification Methods and Procedures	15
10.0	Emergency Communications	16
11.0	Public Information	16
12.0	<u>Emergency Facility and Equipment and Facilities</u> 12.1 Emergency Response Facilities (ERF) 12.2 Emergency Equipment	16
13.0	Accident Assessment	18
14.0	Protective Actions	18
15.0	Radiological Exposure	19
16.0	Medical and Health Support	20
17.0	Recovery	21
18.0	Exercise and Drills	22
19.0	<u>Radiological Emergency Response Training</u> 19.1 Emergency Response Personnel Training 19.2 Non-Kewaunee Power Station Emergency Response Support Organizations	24
20.0	Maintaining Emergency Preparedness 20.1 Emergency Preparedness Responsibilities 20.2 Review and Updating of the IOEP 20.3 Maintenance and Inventory of Emergency Equipment and Supplies	25
Appendix A	Emergency Equipment, Supplies and Reference Materials	27
Appendix B	Table B-1 Cross Reference IOEP Section to Planning Standards/Requirements/Criteria <del>to</del> <u>and Procedures</u>	28

List of Tables			
Section	Table	Title	Page
6	6-1	Emergency Response Organization Staffing and Responsibility	13
10	10-1	Communication Systems	16
15	15-1	Response Worker Guidelines	20
Appendix B	B-1	<u>Cross Reference</u> IOEP Section to Planning Standards/Requirements/Criteria <del>to</del> <u>and</u> Procedures	



## **1.0 INTRODUCTION**

The Kewaunee Power Station's (KPS) Independent Spent Fuel Storage Installation (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 (SFP). This IOEP adequately addresses the risks associated with KPS'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 beyond the Site Boundary 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 KPS 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."

Exemptions from selected portions of 10 CFR 50.47 and 10 CFR 50 Appendix E for Kewaunee Power Station were granted by the Nuclear Regulatory Commission (NRC) on October 27, 2014 (ADAMS Accession Number: ML14261A223).

The IOEP, revision 0, was approved per NRC Safety Evaluation dated *[insert date prior to issuing]*.

## **2.0 DISCUSSION**

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

In the event of an emergency at the KPS ISFSI, actions are required to identify and assess the nature of the emergency and to respond in a manner that protects the health and safety of the public and onsite personnel.

This plan 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 Director (ED). 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 ED.

This emergency plan describes the organization and responsibilities for implementing emergency measures. It describes interfaces with Offsite Agencies (Federal, State and local) which may be notified in the event of an emergency, and may provide assistance. Fire, ambulance, and law enforcement services are provided by local public entities. Medical services are provided by Aurora Medical Center in Two Rivers, Wisconsin.

Because there are no postulated events that would result in offsite dose consequences large enough to require offsite emergency planning, emergencies are divided into two classifications: Unusual Event (UE) and Alert.

KPS is responsible for planning and implementing emergency measures within the Site Boundary. This emergency plan is provided to meet this responsibility. To carry out specific emergency measures discussed in this plan, detailed implementing procedures are established and maintained.

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

### **2.2 FACILITY DESCRIPTION**

KPS has permanently ceased power operations and all irradiated fuel has been removed from the SFP and placed into dry storage within an ISFSI. On May 14, 2013, the station certified permanent removal of fuel from the reactor vessel in accordance with 10 CFR 50.82(a)(1)(i) and (ii). The 10 CFR 50 license for KPS no longer authorizes operation of the reactor, and emplacement or retention of fuel into the reactor vessel, as specified in 10 CFR 50.82(a)(2).

The KPS ISFSI is located in the town of Carlton, Kewaunee County, along the west shore of Lake Michigan in east central Wisconsin. The topography of the region is gently rolling to flat, with elevations varying from 10 to 100 feet above the level of Lake Michigan. The land surrounding the site slopes gradually east towards Lake Michigan from the higher elevations in the west. At the northern and southern perimeters of the site, bluffs form the boundary between the plant site and Lake Michigan.

### **3.0 DEFINITIONS and ACRONYMS**

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

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

Annual - Frequency of occurrence is met if performed within 1.25 times a 12 month interval as measured from the previous performance. This definition does not apply to the term "annual" when it relates to the conduct of the Emergency Preparedness Exercise and off-year Drill. The Exercise and off-year Drill are performed within the calendar year.

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.

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

Corrective Action - Those emergency measures taken to mitigate or terminate an emergency situation at or near the source of the problem in order to prevent an uncontrolled release of radioactive material or to reduce the magnitude of a release (e.g., equipment shutdown, fire fighting, equipment repair, and damage control).

Design Basis Accident (DBA) - Credible accident events as analyzed in the ISFSI Updated Final Safety Analysis Report (UFSAR).

Emergency Action Level (EAL) - A pre-determined, site-specific, observable threshold for an INITIATING CONDITION (IC) that when met or exceeded places the station in a given emergency classification level.

Emergency Plan Implementing Procedures (EPIP) - Specific procedures describing actions needed to implement the IOEP.

Emergency Plan Maintenance Procedures - Specific procedures describing the methods established to maintain and monitor the IOEP.

Emergency Response Facility (ERF) - The facility containing the communication equipment necessary for emergency conditions. It is operated under the direction of the ED and serves as the primary location for Classification of the incident, Notification of incident to offsite agencies, ASSESSMENT ACTIONS, and CORRECTIVE ACTION direction.

Emergency Response Organization (ERO) - Individuals who have been assigned an emergency response position within the IOEP.

Environmental Protection Agency (EPA) - An agency of the U.S. federal government which was created for the purpose of protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.

Hostile Action - An act toward the KPS 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 KPS ISFSI. Non-terrorism-based EALs should be used to address such activities (i.e., this may include violent acts between individuals within the SITE BOUNDARY).

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.

Independent Spent Fuel Storage Installation (ISFSI) - A complex designed and constructed for the interim storage of spent nuclear fuel, solid reactor-related Greater Than Class C (GTCC) waste, and other radioactive materials associated with spent fuel and reactor-related GTCC waste storage (10 CFR 72.3).

Initiating Condition (IC) - An event or condition that aligns with the definition of one of the two emergency classification levels by virtue of the potential or actual effects or consequences.

Monthly – Frequency of occurrence is met if performed within 1.25 times a 31 day interval as measured from the previous performance.

Personnel Monitoring Equipment - Radiation exposure measuring devices designed to be worn or carried by an individual for the purpose of measuring the radiation dose received (e.g., direct reading dosimeters and TLDs).

Protected Area (PA) – The area encompassed by physical barriers and to which access is controlled.

Protective Actions - Those measures taken in anticipation of or after an inadvertent release of radioactive material for the purpose of preventing or minimizing radiological exposures to onsite personnel.

Quarterly – Frequency of occurrence is met if performed within 1.25 times a 92 day interval as measured from the previous performance.

Radioactive Release - Any radioactive material beyond pre-emergency levels and not attributable to normal operations, either detected or suspected of migrating beyond the PA, while in a classified emergency.

Radiological Control Area (RCA) - An area in which radioactive material is present and the potential exists for the spread of radioactive contamination. The area is posted for the purpose of protecting individuals against undue risks from exposure to radiation and radioactive materials.

Security Condition - Any Security Event as listed in the approved security contingency plan that constitutes a threat/compromise to site security, threat/risk to site personnel, or a potential degradation to the level of safety. A Security Condition does not involve a Hostile Action.

Site Boundary – The perimeter of the land owned by Dominion Energy Kewaunee Inc. The ISFSI Controlled Area, as defined in 10 CFR 72.3, is bounded within the Site Boundary.

Unusual Event (UE) - 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 offsite response or monitoring are expected unless further degradation occurs.

#### **4.0 REFERENCES**

- 10 CFR 50.47, "Emergency Plans"
- 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities"
- 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" (November 1980)
- NUREG-1140, Final Report published January 1988, "A Regulatory Analysis on Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees"
- Facility Technical Specifications
- Emergency Preparedness Procedures
- NEI 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors"
- EPA's "Protective Action Guide and Planning Guidance for Radiological Incidents," Draft for Interim Use and Public Comment dated March 2013
- Kewaunee Power Station Exemption from Certain Emergency Planning Requirements and Related Safety Evaluation dated October 27, 2014 (ADAMS Accession Number: ML14261A223)
- NUREG-0586, Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities
- NRC IN 90-08, KR-85 Hazards from Decayed Fuel
- 10 CFR 72.13, Applicability
- 10 CFR 72.32, Emergency plans
- 10 CFR 72.44, License conditions
- 10 CFR 72.106, Controlled area of an ISFSI or MRS
- ISFSI Storage System Certificates of Compliance, Updated Final Safety Analysis Reports and Technical Specifications

## **5.0 ASSIGNMENT OF RESPONSIBILITY**

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 Emergency Response and Responsibilities**

The ISFSI Shift Supervisor (ISS) is at KPS 24 hours a day and is the senior management position during off-hours. This position is responsible for monitoring conditions and managing the activities at the KPS ISFSI.

When an off-normal, natural phenomenon, or accident event becomes apparent, the ISS shall assess the condition and assume the position of Emergency Director (ED). The functions associated within the ED's scope of responsibilities are specified on Table 6-1.

The Emergency Director does not have concurrent duties which conflict with the above responsibilities.

The on-shift staff positions are available 24 hours per day. The on-shift staff can perform all required IOEP actions. At the direction of the ED, additional personnel will be activated and augment the on-shift staff.

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

### **5.2 Offsite Response Organizations (ORO)**

The ED coordinates the OROs' response (fire, ambulance and local law enforcement agency (LLEA)), access and radiological controls with the onsite activities. The OROs listed below are capable of 24 hour emergency response.

State and local government agency response will be in accordance with each agency's plans and procedures, and commensurate with the hazard posed by the emergency. Letters of Agreement are in place for those local agencies that will respond.

#### **City of Kewaunee Fire Department**

Arrangements have been made with the City of Kewaunee Fire Department to provide the primary response as requested. The City of Kewaunee Fire Department is located about 10 miles from the KPS ISFSI, which allows for a timely response from the initial notification.

**City of Kewaunee Ambulance**

Arrangements have been made with the City of Kewaunee Ambulance for ambulance services. The agreement includes a commitment for medical transportation of contaminated injured workers.

**Aurora Medical Center**

Arrangements have been made for medical services with Aurora Medical Center, located approximately 14 miles from the KPS ISFSI. The agreement includes a commitment by the hospital to accept and treat personnel with routine industrial injuries as well as injuries complicated by radioactive contamination or radiation exposure. The Aurora Medical Center maintains the capability and facilities to provide radioactive decontamination, first aid, and emergency stabilization medical treatment to injured personnel. These services and facilities are available 24 hours a day.

**Kewaunee County Sheriff's Department**

An agreement is maintained with the Kewaunee County Sheriff's Department to provide emergency assistance per the Security Plan.

**6.0 EMERGENCY RESPONSE ORGANIZATION (ERO)**

ERO responsibilities for emergency response are listed in Table 6-1.

**6.1 ON-SHIFT POSITIONS**

KPS has personnel on-shift at all times that provide the initial response to an off-normal, natural phenomenon, or accident event. Members of the on-shift organization are trained on their responsibilities and duties in the event of a classified emergency and are capable of performing all necessary response actions until the augmenting staff arrives or the event is terminated. The on-shift staffing assignments include the roles and responsibilities for their emergency response functions.

**ISFSI Shift Supervisor (ISS)/EMERGENCY DIRECTOR (ED)**

The ISS is at KPS 24 hours a day and is the senior management position during off-hours. This position is responsible for monitoring conditions and approving all onsite activities.

When an off-normal, natural phenomenon, or accident event becomes apparent, the ISS shall assess the condition and assume the position of Emergency Director (ED).

The ED assumes overall command and control of the event response. The ED cannot delegate the following responsibilities:

- Classification of event.
- Authorization of radiation exposures in excess of 10 CFR 20 limits.



Other responsibilities assumed by the ED ~~are included~~ associated with the functions listed in Table 6-1 include:

- Notification of the emergency classification to the NRC, State of Wisconsin, and Kewaunee County
- Management of available station resources
- Initiation of mitigative actions
- Initiation of corrective actions
- Initiation of onsite protective actions
- Decision to call for 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

## **SECURITY**

Security is administered by the ISFSI Physical Security Plan. Security will perform accountability at the direction of the ED.

## **6.2 AUGMENTED ORGANIZATION**

### **RESOURCE MANAGER**

The Resource Manager will be in contact with the ED within 2 hours of classification. The Resource Manager will augment the ED 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 KPS to perform their responsibilities.

### **AUGMENTATION PERSONNEL**

For a classified event involving radiological consequences (EU1), a minimum of one person trained in radiological monitoring and assessment will report to the station within 4 hours of the emergency declaration.

Additional personnel resources may be directed to report to KPS to provide additional support as needed to assess radiological conditions, support maintenance and repair activities, develop and implement corrective action plans, and assist with recovery actions. The augmentation personnel are available from KPS staff and Dominion facilities, and can be requested from various contractors.

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

Additional support is available from OROs, as previously discussed in Section 5.2 of this emergency plan.

### 6.3 FUNCTIONAL RESPONSIBILITIES

Table 6-1 below lists the functional responsibilities of positions that fulfill emergency staffing capabilities.

**TABLE 6-1**  
**Emergency Response Organization Staffing and Responsibility**

FUNCTIONAL AREA	LOCATION	ON-SHIFT STAFF	AUGMENTED OFFSITE RESPONSE
Assessment of Condition	Emergency Response Facility	Emergency Director	Resource Manager
Emergency Direction and Control	Emergency Response Facility	Emergency Director	---
Notifications / Communications	Emergency Response Facility	Emergency Director	---
Radiological Accident Assessment and Protective Actions	Emergency Response Facility / On Scene	Emergency Director	Resource Manager**
Corrective Actions	Emergency Response Facility / On Scene	Emergency Director	---
Fire Fighting	On Scene	Per Fire Protection Program Plan	Offsite Response Organization
Rescue and First Aid Treatment	On Scene	*	Offsite Response Organization
Site Access Control and Accountability	Security Station	Per Security Plan	---

\* Provided by on-shift personnel who may be assigned other functions.

\*\* Augmentation responder as described in Section 6.2.

### 7.0 OFFSITE EMERGENCY RESPONSE SUPPORT AND RESOURCES

Arrangements for requesting and effectively using resources have been made and other organizations capable of augmenting the planned response have been identified. Letters of Agreement are in place for those local agencies (fire, ambulance and LLEA) that will respond to an ISFSI emergency condition. Letters of Agreement for each agency are maintained on file.

The ED coordinates the fire, ambulance and LLEA response as previously discussed in Section 5.2 of this Plan.

The ED is authorized to request Federal assistance as needed. The Nuclear Regulatory Commission (NRC) will act as the lead Federal agency providing coordination and support in response to a nuclear incident.

## **8.0 EMERGENCY CLASSIFICATION SYSTEM**

A standard emergency classification and action level scheme is in use. This section describes emergency classifications, Initiating Conditions, Emergency Action Levels (EAL), and postulated emergency situations.

### **EMERGENCY CLASSIFICATION SYSTEM**

The emergency classification system covers an entire spectrum of possible radiological and non-radiological emergencies at the KPS ISFSI. The emergency classification system categorizes accidents and/or emergency situations into one of two emergency classification levels depending on emergency conditions at the time of the incident. The emergency classification levels applicable at Kewaunee Power Station ISFSI, in order of increasing severity, are Unusual Event and Alert. Each of these emergency classes requires notification to the Resource Manager, State and local government agencies, as well as the NRC.

The emergency classification system is based on NEI 99-01, "Development of Emergency Action Levels for Non-Passive Reactors", revision 6.

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. Notification to the State and local government agencies, and the NRC is required within 60 minutes of the event classification.

Incidents may be classified in a lower emergency classification level at first and then escalated to the higher level if the situation deteriorates. The following paragraphs outline the actions at each classification level. Refer to Emergency Action Level Technical Bases for actual parameter values, and status used to classify emergencies.

The Unusual Event status shall be maintained until an escalation in emergency class occurs or the event is terminated. Offsite authorities will be informed of the change in the emergency status and the necessary documentation will be completed as specified in the Emergency Plan Implementing Procedures.

The Alert status shall be maintained until termination of the event or de-escalation in emergency class occurs. The facility may enter recovery operations without de-escalating from an Alert. Offsite authorities will be informed of the change in the emergency status and the necessary documentation shall be completed as specified in the Emergency Plan Implementing Procedures.

## **SPECTRUM OF POSTULATED OFF-NORMAL, NATURAL PHENOMENON, AND ACCIDENT EVENTS**

The ISFSI Updated Final Safety Analysis Report describes the Design Basis Accidents (DBAs) applicable to the KPS ISFSI along with the radiological dose calculation results. Additionally, recovery actions from the DBAs are analyzed for duration and estimated dose to workers.

### **9.0 NOTIFICATION METHODS AND PROCEDURES**

Procedures are established for notification to State and local organizations and for notification of KPS emergency personnel; the content of initial and follow-up messages to response organizations has been established.

#### **Notification Process**

Nuclear Accident Reporting System (NARS) is the communication process used to notify the State and local government agencies of a classified emergency. The notification contains information that identifies the facility, emergency classification, and EAL. Notification to the State and local government agencies will be made within 60 minutes of event classification, and the process includes a means of message verification. Notification is the responsibility of the ED.

Based upon changing conditions or as requested, follow-up messages will be communicated to the State and local government agencies. The follow-up message will contain the following information as available:

- Identification of facility.
- Identification of caller.
- Date / time of incident.
- Emergency Classification.
- Radiological condition including assessment of any radioactive release.
- Emergency response action.
- Request for any needed support by offsite agencies.
- Prognosis for worsening or termination of event based upon available information.

#### **NRC Emergency Notification System (ENS)**

The ENS is a dedicated telephone system used to notify the NRC Operations Center. The NRC will be notified as soon as possible after State and local notifications and within 60 minutes of event classification. In the event of failure of the ENS, any telephone will be used to notify the NRC. Notification to the NRC is the responsibility of the ED.

#### **ERO Activation**

The ERO is activated by an onsite announcement and by the ERO callout system directed by the Emergency Director.

### **Support Organizations**

Medical, LLEA, and fire fighting support services are primarily notified for assistance via the public 911 process. Requests for support services are the responsibility of the ED.

## **10.0 EMERGENCY COMMUNICATIONS**

Provisions exist for prompt communications between principal response organizations and emergency response personnel. The communication systems listed in Table 10-1 provide 24-hour onsite and offsite communications capability. Communication systems are tested to verify proper operation at the testing frequency specified in Table 10-1. Communication systems that are listed with a testing frequency of "Frequent Use" indicates that the associated equipment is normally used at a sufficiently high regularity (e.g., multiple times each day), such that separate additional testing is not needed. Functionality is verified through normal (frequent) use of the system.

**TABLE 10-1  
Communication Systems**

<b>Communication System</b>	<b>Testing Frequency</b>
Commercial / PBX telephone system	Frequent Use
Portable radios	Frequent Use
NARS communication equipment/phones	Monthly*
NRC FTS Network (ENS)	Monthly
ERO callout system	Semi-annual*

\* Performance of drill requirements specified in Section 18 satisfies the Testing Frequency.

## **11.0 PUBLIC INFORMATION**

Corporate Communications Department personnel will be notified of a classified emergency. Corporate Communications Department will monitor media activity and coordinate with senior management disseminating public information per communication protocols. As necessary, news conference(s) can be conducted on site or other coordinated location. Corporate Communications Department personnel, or senior KPS or corporate management will represent the facility as the spokesperson.

## **12.0 EMERGENCY FACILITY AND EQUIPMENT**

Adequate emergency facilities and equipment to support the emergency response are provided and maintained. This section of the plan 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 ED (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 is staffed in accordance with Section 6.0. The facility provides sufficient space to accommodate anticipated response personnel and provides availability of communication systems as specified on Table 10-1.

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.

Specific emergency response equipment and reference materials are listed in Appendix A, Emergency Equipment, Supplies and Reference Materials. The items listed in Appendix A are inspected, inventoried, and operationally checked quarterly and after each use. There are sufficient reserves of instruments/equipment to replace those which are removed for calibration or repair. Equipment in these inventories is checked and calibrated in accordance with approved procedures.

### **Portable Radiation and Contamination Monitoring Instruments**

Portable radiation and contamination monitoring instruments normally utilized and maintained by the Radiation Protection group are available for emergency use.

### **Communication Systems**

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

### **13.0 ACCIDENT ASSESSMENT**

Adequate methods and equipment are in use for assessing and monitoring consequences of a radiological emergency condition.

The assessment activities required to evaluate a particular emergency depend on the specific nature and classification of the emergency. The ED 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 ED in accordance with the EAL scheme.

If the measured ISFSI dose rates exceed the EAL threshold, the ED then performs a radioactive release assessment in the vicinity of the affected storage module or cask. After completing the assessment, the ED contacts the Resource Manager to assist 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 EIPs.

Additionally, the EIPs provide for a range of protective actions (e.g. relocation of personnel and personnel take cover) to protect onsite personnel during hostile actions.

#### **Accountability**

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

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 ED. If personnel are unaccounted for, teams shall be dispatched to locate the personnel.

Non-ERO personnel, supplemental personnel, and visitors located outside of the ISFSI PA but within the Site Boundary will be directed to report to an assembly area or exit the site as appropriate. The ED is responsible for controlling access to the site when the IOEP is activated.

## **15.0 RADIOLOGICAL EXPOSURE**

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.

### **Radiological Control Areas (RCAs) / Access Control**

During a classified emergency, radiological surveys of the ISFSI pad area will be performed to determine the actual extent of the radiological concern. As necessary, the ED 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.

### **Exposure Control and Records**

Individuals authorized to enter RCAs are required to have in their possession dosimetry capable of measuring a dose received from external sources of ionizing radiation.

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

All reasonable measures shall be taken to control the radiation exposure to emergency response personnel providing rescue, first aid, decontamination, emergency transportation, medical treatment services, corrective actions or assessment actions within applicable limits specified in 10 CFR 20. The ED is responsible for authorizing emergency response personnel to receive doses in excess of 10 CFR 20 limits, if necessary. Table 15-1 contains the guidelines for emergency exposure criteria, which is consistent with the EPA's, "Protective Action Guide and Planning Guidance for Radiological Incidents," Table 2-2, "Response Worker Guidelines."

### **Personnel Contamination Control**

All personnel are monitored for radioactive contamination prior to leaving the site. 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**  
**Response Worker Guidelines**

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

(a) For potential doses >5 rem, medical monitoring programs should be considered.

(b) In the case of a very large incident, may need to consider raising the property and lifesaving response worker guidelines to prevent further loss of life and massive spread of destruction.

## **16.0 MEDICAL AND HEALTH SUPPORT**

Arrangements are made for medical services for injured individuals and/or contaminated injured individuals. KPS maintains on-shift personnel and equipment to provide first aid for personnel working at the site. Medical emergency supplies are located in the ERF.

If immediate professional medical help is required, local ambulance services are available to assist in the transport of seriously injured personnel.

When personnel are transported to the Aurora Medical Center while in a contaminated condition, a person trained in radiological monitoring will be dispatched to monitor and maintain radiological controls.

## **17.0 RECOVERY**

The recovery organization will be based on the normal KPS organization and would function with the senior management position being responsible for site activities.

### **RECOVERY OPERATIONS**

KPS is responsible for recovery measures and restoring the ISFSI to a stable condition. In an emergency event, immediate response actions are directed towards limiting the consequences of the emergency in a manner that will afford maximum protection to onsite personnel. Once the immediate assessment and protective actions have been implemented, the restoration and recovery measures can be implemented.

The extent and nature of the corrective and protective actions and the extent of recovery will depend on the emergency conditions at hand and the status of ISFSI. The general goals for recovery are:

- An orderly evaluation of the cause and effect of the emergency and implementation of solutions to prevent immediate recurrence of the incident.
- A planned approach for returning the ISFSI to a stable condition by obtaining the appropriate manpower, materials, and equipment.
- A planned approach to coordinate with offsite authorities to identify and resolve situations that may impact the general public.
- An evaluation of the radiation exposure records for all onsite emergency response personnel involved in the incident.
- A planned approach to ensure that radiation exposures and contamination controls are consistent with the ALARA program.

During a classified emergency, a point will be reached where the ISFSI will be placed in a stable condition. Since this condition could be attained even though specific EALs may remain exceeded, the ED will determine that there is no longer a need to keep the emergency organization in effect and to begin recovery. Although de-escalation to a lower emergency level may be performed, it is not necessary to de-escalate prior to initiating recovery.

ISFSI recovery activities shall be in accordance with the Technical Specifications and other license documents. During ISFSI recovery, the radiation exposure limits of 10 CFR 20 shall apply.

If, during recovery, an emergency situation again occurs, the emergency plan would be activated per the implementing procedures. Recovery efforts will be suspended until the emergency condition is resolved. The ED will re-evaluate ISFSI conditions prior to resuming recovery.

## **STATION RECOVERY TERMINATION**

The recovery will be terminated by the KPS 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.

### **Exercise and Drill**

Kewaunee Power Station conducts a biennial Exercise to test the adequacy of timing and content of implementing procedures and methods; to test emergency equipment and communication networks; and to ensure that emergency personnel are familiar with their duties. Kewaunee Power Station will invite the OROs to participate in the Exercise.

For alternating years, a Drill is 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:

- The basic objective(s) of the exercise / drill.
- The 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.

### **Equipment and Proficiency Drills**

The following drills are conducted for the purpose of training, developing, and maintaining the proficiency of emergency responders. Equipment and proficiency drills may be performed as part of an exercise, as part of a drill or as an independent drill.

#### **Communication Drills**

Communications with State and local governments shall be drilled annually. The communication drill includes the aspect of understanding the content of messages.

Performance of the Communication Drill satisfies the testing requirements specified in Section 10.0.

#### **Radiological Monitoring Drills**

Radiological monitoring drills, which are conducted annually, demonstrate the ability to perform radiological survey and assessment.

**Medical Emergency Drills**

A medical emergency drill involving a simulated contaminated individual and containing provisions for participation by the Aurora Medical Center shall be conducted at least annually. Both the Kewaunee Power Station and Point Beach Nuclear Plant (PBNP) share the facilities provided by the Aurora Medical Center. To minimize redundant training for the hospital staff, KPS and PBNP will alternate development and conduct of the drill each year.

**Augmentation Capability Assessment (ACA) Drills**

An unannounced off-shift ACA drill shall be conducted semi-annually. These drills 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 ED after an emergency classification.

Performance of the ACA drill satisfies the ERO callout system testing requirements specified in Section 10.0.

**Critique and Evaluation**

Critiques will evaluate the performance of the organization. The ability of emergency response personnel to self-evaluate weaknesses and identify areas for improvement is the key to successful exercise / drill conduct.

Exercise and drill performance objectives are evaluated against measurable demonstration criteria. As soon as possible following the conclusion of each exercise or drill, a critique, including participants and evaluators, is conducted to evaluate the ability of the ERO to implement the IOEP and associated procedures. Deficiencies as a result of exercises or drills are identified and entered into the corrective action system

A written report is prepared following an exercise or drill involving the evaluation of designated objectives. The report evaluates and documents the ability of the ERO to respond to a simulated emergency situation. The report will also contain reference to corrective action and recommendations resulting from the exercise or drill.

## **19.0 RADIOLOGICAL EMERGENCY RESPONSE TRAINING**

Radiological emergency response training is provided to those who may be called on to assist in an emergency.

### **19.1 EMERGENCY RESPONSE PERSONNEL TRAINING**

Requirements for emergency preparedness training are specified in the Emergency Preparedness Training Program. This program identifies the level and the depth to which individuals are to be trained.

#### **Emergency Preparedness Training Program**

The training program for emergency response personnel is based on position specific responsibilities as defined in the IOEP. Emergency response personnel in the following categories receive initial training and annual retraining:

##### **ISFSI Shift Supervisors/Emergency Directors and Resource Managers**

shall have training conducted such that proficiency is maintained on the topics listed below. These 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 DBA

Personnel available during classified emergencies to perform emergency response activities as an extension of their normal duties receive duty-specific training. Additional emergency preparedness training is provided as part of annual access training.

**First Aid** training for personnel assigned to the on-shift responsibility shall include courses equivalent to Red Cross Multi-Media.

**Personnel who are badged for unescorted access** receive access training annually. Information pertaining to their safety and the safety of visitors under escort during a classified emergency is included in this training.

Access training shall include the following emergency preparedness topics:

- Basic Emergency Plan and implementing procedure information.
- Emergency classification levels.
- Call out of personnel during an emergency.
- Personnel accountability procedures.

## **19.2 NON-KEWAUNEE POWER STATION EMERGENCY RESPONSE SUPPORT ORGANIZATIONS**

Training is offered annually to non-KPS organizations which may provide specialized services during an emergency (e.g., fire-fighting, medical services, transport of injured, etc.). The training shall be structured to meet the needs of that organization with respect to the nature of their support. Training topics such as event notification, basic radiation protection, and interface activities between the offsite organization and KPS shall be made available.

## **20.0 MAINTAINING EMERGENCY PREPAREDNESS**

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

### **20.1 EMERGENCY PREPAREDNESS RESPONSIBILITIES**

#### **Kewaunee Power Station Senior Management Position**

Has overall authority and responsibility for emergency response planning. This responsibility includes ensuring that the emergency preparedness program is maintained and implemented as described in this Plan and applicable requirements and regulations.

#### **Emergency Preparedness Position**

Responsible for the following tasks:

- Maintaining and updating this IOEP and associated procedures.
- Ensuring Drill/Exercise commitments stated in the plan are met.
- Ensuring material readiness of emergency response facilities.
- Overseeing the Emergency Preparedness Training Program.
- Maintaining Emergency Preparedness interfaces with offsite agencies.
- Performing and documenting appropriate evaluations of program and of classified emergency events.

Individuals assigned the duties of maintaining the IOEP maintain an adequate knowledge of regulations, planning techniques, and the latest applications of emergency equipment and supplies. Training for these individuals includes 50.54(q) and 72.44(f) Evaluation Qualification.

#### **Licensing**

Responsible for the following tasks:

- Maintaining current knowledge of changes in Federal regulations and other guidance that impact emergency planning activities.
- Submit IOEP and related controlled document revisions to the NRC.

### **Oversight**

Oversight is responsible for performance of independent audit of the emergency preparedness program to meet the requirements of 10 CFR 50.54(t).

## **20.2 REVIEW AND UPDATING OF THE IOEP**

It is important that a state of emergency preparedness be maintained at all times. The IOEP and Emergency Action Level Technical Bases are reviewed annually and updated, as needed. The review shall encompass the need for changes based upon the following aspects:

- Written critiques and evaluations of drills and exercises.
- Changes in the organizational structure.
- Changes in the functions and capabilities of supporting agencies.
- Changes in Federal or State regulations.
- Modifications to the facility which would affect emergency planning.
- Recommendations or agreement changes received from other organizations.

Any needed changes shall be incorporated in the IOEP, Emergency Action Level Technical Bases, and appropriate implementing procedures.

Proposed activities that may impact the IOEP must be evaluated per 10 CFR 50.54(q) and 10 CFR 72.44(f).

### **Emergency Action Levels (EALs) State and Local Government Agency Review**

The EALs shall be made available for review with State and local governmental authorities annually.

### **Emergency Telephone Directory**

Names and telephone numbers of the ERO and supporting offsite agencies shall be reviewed at least quarterly and updated as necessary.

### **Letters of Agreements**

The letters of agreement with the support agencies shall be reviewed with the support agency at least every two years (biennially). Changes shall be made and the agreements renewed, as necessary.

## **20.3 MAINTENANCE AND INVENTORY OF EMERGENCY EQUIPMENT AND SUPPLIES**

Appendix A, "Emergency Equipment, Supplies and Reference Materials," lists each of the emergency response facilities and the required equipment, supplies and reference materials that are to be maintained.

## **APPENDIX A**

### **Emergency Equipment, Supplies and Reference Materials**

#### **EMERGENCY RESPONSE FACILITY**

##### **Procedures / Reference Material**

ISFSI-Only Emergency Plan  
ISFSI-Only Emergency Action Level Bases Document  
Emergency Telephone Directory  
Emergency Plan Implementing Procedures

##### **Equipment**

Portable radiation monitoring instrument  
Portable emergency lighting  
Medical emergency response bag

#### **ONSITE LOCATIONS**

##### **Equipment / Supplies**

Portable radiation and contamination monitoring instruments  
Contamination control supplies  
Decontamination control supplies  
Protective clothing  
Dosimeters  
Radiological postings and barricades



**APPENDIX B**  
**Table B-1**  
**Cross Reference IOEP Section to Planning Standards/Requirements/Criteria and Procedures**

<b>IOEP Section</b>	<b>Planning Standard (10 CFR 50.47)**</b>	<b>Planning Requirement (Appendix E.IV)**</b>	<b>NUREG-0654, Section II Evaluation Criteria</b>	<b>Procedure</b>
5.0	(b)(1)	A.1, 2, 4, 7	A	TBD
6.0	(b)(2)	A.1, 2, 4; C.1	B	TBD
7.0	(b)(3)	A.6, 7	C	TBD
8.0	(b)(4)	B.1, 2; C.1, 2	D	TBD
9.0	(b)(5)	A.6, 7; C.1; D.1, 3; E	E	TBD
10.0	(b)(6)	C.1; D.1, 3; E	F	TBD
11.0	(b)(7)	Exempt	G	TBD
12.0	(b)(8)	E; G	H	TBD
13.0	(b)(9)	A.4; B.1; C.2; E	I	TBD
14.0	(b)(10)	C.1; E	J	TBD
15.0	(b)(11)	E	K	TBD
16.0	(b)(12)	A.6, 7; E	L	TBD
17.0	(b)(13)	H	M	TBD
18.0	(b)(14)	E9; F	N	TBD
19.0	(b)(15)	F	O	TBD
20.0	(b)(16)	G	P	TBD

\*\* Refer to the Kewaunee Power Station's exemptions from portions of 10 CFR 50.47 and Appendix E for applicability