

NRC-03-112

10 CFR 50, App. E

November 12, 2003

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

KEWAUNEE NUCLEAR POWER PLANT  
DOCKET 50-305  
LICENSE No. DPR-43  
RADIOLOGICAL EMERGENCY RESPONSE PLAN IMPLEMENTING PROCEDURES

Pursuant to 10 CFR 50 Appendix E, attached is the latest revisions to the Kewaunee Nuclear Power Plant Radiological Emergency Response Plan Implementing Procedures (EIPs). These revised procedures supersede the previously submitted procedures.

Pursuant to 10 CFR 50.4, two additional copies of this letter and attachment are hereby submitted to the Regional Administrator, U. S. Nuclear Regulatory Commission, Region III, Lisle, Illinois. As required, one copy of this letter and attachment is also submitted to the Kewaunee Nuclear Power Plant NRC Senior Resident Inspector.



Thomas Coutu  
Site Vice President, Kewaunee Nuclear Power Plant  
Nuclear Management Company, LLC

GOR

Enclosure

cc: Senior Resident Inspector, Kewaunee, w/enc.  
Administrator Region III (2 copies), w/enc.  
Public Service Commission of Wisconsin, w/o enc.  
QA Vault, w/o enc.

# DOCUMENT TRANSMITTAL

KEWAUNEE NUCLEAR POWER PLANT

FROM: DIANE FENCL - KNPP

TRANSMITTAL DATE 11-04-2003

## EMERGENCY PLAN IMPLEMENTING PROCEDURES TRANSMITTAL FORM

### OUTSIDE AGENCY COPIES (1-20)

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PERSONAL COPIES (21-40) These copies are for the personal use of the listed individuals for reference or emergency response.

J. Bennett (33)

J. Morlino (24)

J. Ferris (13)

T. Coutu (28)

REFERENCE COPIES - CUSTODIAN (41-100) These copies are for general reference by anyone. They are distributed throughout the plant and corporate offices. The named individual is the responsible custodian for the procedures and shall insure they are properly maintained.

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C. Sternitzky - ATF-2 (44)  
M. Daron - Security Building (46)  
C. Grant - EOF (81)  
C. Grant - OSF (52, 96)  
LOREB - STF (62, 66, 67, 68, 70, 72, 73, 74)  
STF Library (43)

Resource Center - Training (82)  
D. Krall - CR/SS Office (51, 56)  
C. Grant - TSC (50, 95)  
W. Galarneau - RAF (53)  
W. Galarneau - SBF/EMT (54)  
W. Galarneau - RPO (55)  
STF (86, 87, 88)

WORKING COPIES (101-199) These copies of procedures are kept in the areas designated for use in response to an emergency.

W. Galarneau - RAF/RPO (106, 107)(Partial Distribution)  
W. Galarneau - SBF/ENV (108, 109)(Partial Distribution)  
W. Galarneau - SBF/EM Team (110, 111, 111A)(Partial Distribution)  
W. Flint - Cold Chem/HR Sample Room (113)  
S. Zutz - SBF/SEC (114)  
E. Gilson - Security (121)  
S. Zutz - Security Building (120)  
Ops Admin. (126)  
C. Grant (Liaison Manuals)(EPIP-EOF-04 and APPX-A-06 Figures only)

C. Grant - TSC Response Blue Binder (Partial Distribution)  
C. Grant - TSC Response Red Binder (Partial Distribution)  
C. Grant - TSC (Partial Distribution - FORMS ONLY)  
C. Grant - EOF Response Binder (Partial Distribution)  
D. Krall - CR Response Binder (Partial Distribution)  
K. Stangel - SCR Response Binder (Partial Distribution)  
D. Krall - CR Tag Desk (Partial Distribution)  
K. Stangel - SCR Tag Desk (Partial Distribution)

Originals to KNPP QA Vault

Please follow the directions when updating your EPIP Manual. **WATCH FOR DELETIONS!!!** These are controlled procedures and random checks may be made to ensure the manuals are kept up-to-date.

**\*THIS IS NOT A CONTROLLED COPY. IT IS A COPY FOR INFORMATION ONLY.**

**KEWAUNEE NUCLEAR POWER PLANT**  
**REVISION OF EMERGENCY PLAN IMPLEMENTING PROCEDURES**  
November 04, 2003

Please follow the directions listed below.

EPIP Index, dated 11-04-2003.

REMOVE		INSERT	
PROCEDURE	REV.	PROCEDURE	REV.
EPIP-OSF-02	V	EPIP-OSF-02	W
EPIP-RET-02A	U	EPIP-RET-02A	V
Form EPIPF-SEC-04-01	G	Form EPIPF-SEC-04-01	H
Form EPIPF-TSC-09A-03	E	Form EPIPF-TSC-09A-03	F

Return a signed and dated copy of this transmittal letter, within 10 days of transmittal date, to the sender. If you have any questions or comments, please contact Jerrie Morlino at 8719.

I CERTIFY Copy No. \_\_\_\_\_ (WPSC No.) of  
the Kewaunee Nuclear Power Plant's EIPs has  
been updated.

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

Please return this sheet to *DIANE FENCL*.

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EPIP-AD-02	Emergency Class Determination	AG	05-05-2003
EPIP-AD-03	KNPP Response to an Unusual Event	AJ	09-09-2003
EPIP-AD-04	KNPP Response to Alert or Higher	AO	09-09-2003
EP-AD-5	Site Emergency	Deleted	04-27-87
EPIP-AD-05	Emergency Response Organization Shift Relief Guideline	E	02-18-2003
EP-AD-6	General Emergency	Deleted	04-24-87
EPIP-AD-07	Initial Emergency Notifications	AV	09-09-2003
EP-AD-8	Notification of Alert or Higher	Deleted	02-26-96
EP-AD-9	Notification of Site Emergency	Deleted	04-27-87
EP-AD-10	Notification of General Emergency	Deleted	04-27-87
EPIP-AD-11	Emergency Radiation Controls	S	12-19-2002
EP-AD-12	Personnel Assembly and Accountability	Deleted	03-26-94
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EP-AD-13A	Limited Area Evacuation	Deleted	03-01-83
EP-AD-13B	Emergency Assembly/Evacuation	Deleted	03-01-83
EP-AD-13C	Site Evacuation	Deleted	03-01-83
EP-AD-14	Search and Rescue	Deleted	05-25-94
EPIP-AD-15	Recovery Planning and Termination	P	09-12-2002
EP-AD-16	Occupational Injuries or Vehicle Accidents During Emergencies	Deleted	03-14-97
EP-AD-17	Communications	Deleted	03-05-84
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EPIP-AD-19	Determining Protective Action Recommendations	T	09-19-2003

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EPIP-AD-20	KNPP Response to a Security Threat	E	09-30-2003
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EPIP-ENV-01	Environmental Monitoring Group Organization and Responsibilities	X	07-31-2003
EPIP-ENV-02	Environmental Monitoring Team Activation	Y	07-31-2003
EP-ENV-3A	Environmental Protection Director Actions and Directives	Deleted	09-26-84
EP-ENV-3B	EM Team Actions	Deleted	09-26-84
EPIP-ENV-03C	Dose Projection Using RASCAL Software	X	09-19-2003
EP-ENV-3D	Revision and Control of ISODOSE II	Deleted	02-14-95
EP-ENV-3E	Manual Determination of X/Q	Deleted	04-24-87
EP-ENV-3F	Manual Determination of X/Q (Green Bay Meteorological Data)	Deleted	05-30-86
EP-ENV-3G	Manual Dose Projection Calculation	Deleted	06-02-89
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EPIP-ENV-04B	Air Sampling and Analysis	Y	07-31-2003
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EPIP-ENV-04C	Ground Deposition Sampling and Analysis	Y	07-31-2003
EPIP-ENV-04D	Plume Tracking for Environmental Monitoring Teams	P	07-31-2003
EP-ENV-5A	LCS-1 Operation	Deleted	04-14-86
EP-ENV-5B	MS-3 Operation	Deleted	04-14-86
EP-ENV-5C	SAM II Operation	Deleted	04-14-86
EP-ENV-5D	PAC-4G (Alpha Counter) Operation	Deleted	04-14-86
EP-ENV-5E	Reuter-Stokes Operation	Deleted	08-27-85

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EP-ENV-6	Data Analysis, Dose Projections and Protective Action Recommendations	Deleted	12-21-81
EP-ENV-6	Alternate Sample Analysis and Relocation of EM Team	Deleted	04-14-86
EP-ENV-6A	Relocation of Site Access Facility (Habitability)	Deleted	03-23-84
EP-ENV-6B	SAF Environmental Sample Analysis Relocation	Deleted	03-23-84
EP-ENV-7	Site Access Facility Communications	Deleted	09-26-84
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EP-EOF-5	Corporate Staff Action for Site Emergency	Deleted	04-24-87
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EP-EOF-9	Interface with Support Organizations	Deleted	03-05-84
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EP-EOF-10	Notification of General Emergency	Deleted	04-24-87
EPIP-EOF-11	Internal Communication and Documentation Flow	W	07-31-2003
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EP-OP-2	Emergency Control Room Activation for Emergency Response	Deleted	04-24-87
EP-OP-3	Control Room Communications	Deleted	04-24-87
<b>EP-OSF</b>			
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EPIP-OSF-03	Work Orders During an Emergency	P	05-09-2002
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EPIP-RET-02B	Gaseous Effluent Release Path, Radioactivity, and Release Rate Determination	T	09-19-2003
EP-RET-2C	Containment Air Sampling and Analysis	Deleted	03-01-83
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EP-RET-2E	Handling of Injured Personnel	Deleted	04-16-96
EP-RET-2F	Personnel Decontamination	Deleted	04-13-90
EPIP-RET-03	Chemistry Emergency Team	P	02-18-2003
EPIP-RET-03A	Liquid Effluent Release Paths	L	11-29-2001
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EP-RET-3E	Post Accident Operation of High Rad Sample Room Inline Multiported Count Cave	Deleted	08-27-85
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EP-RET-4A	EOF Radiological Monitoring	Deleted	03-10-83
EPIP-RET-04A	SBF Operation/Relocation	Deleted	10-02-2001
EP-RET-4B	Radiological Controls at Site Access Facility	Deleted	07-12-94
EP-RET-4C	Site Radiological Monitoring	Deleted	07-12-94
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EP-RET-7	Radiological Analysis Facility/Radiation Protection Office Communications	Deleted	04-24-87
EPIP-RET-08	Contamination Control of the Aurora Medical Center	Deleted	05-23-2002
EPIP-RET-09	Post-Accident Population Dose	Deleted	09-19-2003
<b>EP-SEC</b>			
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EPIP-SEC-02	Security Force Response to Emergencies	Z	07-31-2003
EP-SEC-2A	Manual Activation of Emergency Sirens	Deleted	04-16-82
EPIP-SEC-03	Personnel Assembly and Accountability	AG	05-20-2003
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EPIP-TSC-04	Emergency Modifications	O	04-29-2003
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EPIP-TSC-07	RV Head Venting Time Calculation	J	06-20-2002
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EPIP-TSC-08B*	STMRLS Computer Program	H	07-31-2003
EP-TSC-8C*	See EP-TSC-8B	Deleted	04-16-92
* EP-TSC-8B was totally deleted; therefore, EP-TSC-8C was changed to EP-TSC-8B			
EP-TSC-9	Core Damage Assessment Using Released Radionuclides	Deleted	09-30-86
EPIP-TSC-09A*	Core Damage Assessment	K	05-05-2003
EPIP-TSC-09B*	CORE Computer Program	Deleted	05-16-2002
EP-TSC-9C*	See EP-TSC-9B	Deleted	04-16-92
* EP-TSC-9A, Rev. D was totally deleted; therefore, EP-TSC-9B became EP-TSC-9A. EP-TSC-9B was previously EP-TSC-9C.			
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EPIP-APPX-A-06	EP-FIG-008	APPX-A-06-01	Radiological Analysis Facility - KNP Floor Plan	A	10-31-2000
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APPX-A-6	EP-FIG-034	---	Floor Plan - Media Briefing Center	Deleted	08-04-98
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APPX-A-6	EP-FIG-037	---	Floor Plan - Corporate Response Center	Deleted	08-04-98
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EPIP-APPX-A-03	Off-Site Telephone Numbers	Deleted	02-06-2002
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AD-07-03	Fax Event Notice	C	09-19-2003
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AD-11-01	Emergency Radiation Work Permit	H	12-19-2002
AD-18-01	Airborne Radioiodine Dose Accountability and Potassium Iodide Distribution	B	08-06-2002
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ENV-01-03	Meteorological and Plant Status Data	C	12-14-2001
ENV-01-04	EMT Orders/Field Data	C	07-31-2003
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EOF-04-01	SRCL Initial Action Checklist	D	01-20-2003
EOF-04-02	Telephone Communications Log Sheet	A	12-14-2001
EOF-08-03	Fax for Emergency Declaration or Status Updates	H	01-20-2003
EOF-08-05	Plant Emergency Status Report	A	11-27-2001
EOF-08-06	Radiological Status Report	E	01-20-2003
EOF-11-02	Operating Status	G	11-07-2002

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EOF-12-01	I.D. Badge Registration Form	G	10-24-2000
<b>EP-OSF</b>			
OSF 2.2	Maintenance Work in Progress	Deleted	07-08-98
OSF-03-01	Operational Support Facility Team Briefing	C	12-04-2001
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RET-02B-05	Steam Release	E	09-19-2003
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RET-04-01	SAM-2 Counting Equipment Worksheet	E	06-12-2001
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RET 8.4	Hospital Survey 2	Deleted	07-25-97
RET 8.5	Hospital Survey 3	Deleted	07-25-97
RET-08-06	Hospital Survey 4	Deleted	05-23-2002
RET-09-01	Post-Accident TLD Record Sheet	D	04-16-2002
<b>EP-SEC</b>			
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TSC-02-02	TSC Ventilation Checklist	J	09-19-2003
TSC-02-03	Emergency Response Data System (ERDS) Link Initiation Checklist	H	01-20-2003
TSC-02-04	TSC Chart Recorder Operation Checklist	E	01-20-2003
TSC-02-05	TSC and OSF De-Activation Checklist	C	01-28-2003
TSC-03-01	Plant System Status	L	06-12-2001
TSC-03-02	Plant Equipment Status	L	06-12-2001
TSC-03-03	Environmental Status Board	J	06-12-2001
TSC-03-04	Radiation Monitors	I	01-08-2002
TSC-04-01	Emergency Modification Request	H	04-29-2003
TSC-04-02	Emergency Physical Change Safety Review	Deleted	05-09-2002
TSC-04-03	Emergency Modification Index	G	04-29-2003
TSC-07-01	Head Venting Calculation	G	06-20-2002
TSC-08A-01	Steam Release Data Sheet (Energy Balance)	H	12-14-2001
TSC-08A-02	Steam Release Calculation Sheet (Energy Balance)	H	09-02-2003
TSC-08A-03	Steam Release Data/Calculation Sheet (Open Valve)	E	12-14-2001
TSC-08A-04	Steam Release Data/Calculation Sheet (STMRLS Program)	D	12-14-2001
TSC-09A-01	Core Exit Thermocouple Data	D	05-16-2002
TSC-09A-02	Fuel Rod Clad Damage Estimate	D	05-16-2002
TSC-09A-03	Fuel Rod Overtemperature Damage Estimate	F	11-04-2003
TSC 9A.4	Core Damage Based on Activity Ratios	Deleted	05-16-2002
TSC-09A-05	Core Damage Assessment (Monitoring Data)	E	05-16-2002
TSC 9A.6	Core Damage Summary	Deleted	05-16-2002
TSC-09A-07	Core Damage Assessment Results	A	05-05-2003

<b>WISCONSIN PUBLIC SERVICE CORP.</b>  <b>Kewaunee Nuclear Power Plant</b>		No. EPIP-OSF-02		Rev. W
		Title Operational Support Facility Operations		
<i>Emergency Plan Implementing Procedure</i>		Date NOV 4 2003		Page 1 of 7
		Reviewed By Rich Johnson		
Reviewed By Rich Johnson		Approved By Jerrie Morlino		
Nuclear Safety Related	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	PORC Review Required	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	SRO Approval Of Temporary Changes Required
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## 1.0 Purpose

- 1.1 This procedure provides instruction for the Operational Support Facility (OSF) Staff when responding to an **Alert, Site Emergency, or General Emergency**.

## 2.0 General Notes

- 2.1 None

## 3.0 Precautions and Limitations

- 3.1 Ensure accountability of personnel and OSF Staff reporting to the OSF is maintained throughout the incident (See "Personnel Assembly and Accountability," EPIP-SEC-03) via the Technical Support Center (TSC) Area Accountability Coordinator.
- 3.2 A radiation survey of designated OSF assembly area or use of a portable radiation monitoring instrument for verification of habitability will be performed per "TSC and OSF Activation Checklist," Form EPIPF-TSC-02-01.
- 3.3 If it becomes necessary to evacuate the designated OSF assembly area, then a minimum staff will be maintained in the lower TSC. Additional OSF support personnel will be evacuated per "Personnel Evacuation," EPIP-SEC-05.
- 3.4 If it becomes necessary to evacuate or relocate the TSC and the OSF, then use the guidance in Section 5.5 to assist in relocating the personnel and functionality of the OSF.

## 4.0 Initial Conditions

- 4.1 This procedure shall be implemented upon declaration of an **Alert, Site Emergency, General Emergency**, or when directed by the Shift Manager (SM) or Emergency Director (ED).

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## 5.0 Procedure

### 5.1 Fire Team and Repair Team Accountability

#### 5.1.1 Fire Team

- a. IF you have not been notified that a fire exists, THEN proceed to your assigned Turn Out Gear location.
  - Report the team member names to the SM or Event Operations Director (EOD).
  - Upon completion of initial accountability, if the Fire Team is not required, report to Accountability Location as follows:
    1. Admin. Team to ATF-1 Accountability Location
    2. Annex Team to Warehouse Accountability Location
- b. IF you have been notified that a fire exists, THEN:
  - Upon hearing the plant siren, assemble and account at your Turn Out Gear Lockers (Admin. and Annex).
  - If time permits, one team member should locate the nearest Gai-tronics, telephone, or portable radio, and report the names and locations of the fire team members to the SM or EOD.
  - Respond to the fire keeping the SM or EOD informed of your actions.
- c. During subsequent soundings of the plant alarm:
  - IF you are in the field investigating or fighting a fire, THEN do NOT report to an Accountability Location.
  - IF time permits, THEN one team member should locate the nearest Gai-tronics, telephone, or portable radio and report the names and locations of the team members to the SM or EOD.
  - IF time does not permit, THEN proceed with your emergency duty regardless of accountability concerns.



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### 5.1.2 ERO Repair Teams

- a. IF you have not been contacted by the SM, Support Activity Director (SAD), OSF Coordinator, or a Maintenance Supervisor in regards to performing an emergency duty, THEN proceed to the OSF upon hearing the plant siren.
- b. IF you have been contacted by the SM, SAD, OSF Coordinator, or Maintenance Supervisor and have been instructed to (1) perform an emergency duty, (2) report to the OSF, or (3) report to another area in response to the emergency (e.g., obtain equipment or tools), THEN:
  - Upon hearing the plant siren, locate the nearest Gai-tronics or telephone and contact the SM, SAD, or Maintenance Supervisor (whomever contacted you) to report your location.
  - IF you are continuing on to another area, THEN inform this person.
  - Continue with your emergency duty as instructed.
- c. During subsequent soundings of the plant alarm, if you are in the field performing an emergency duty:
  - Do NOT report to an Accountability Area.

#### Note

IF you are actually required to leave the area, THEN the OSF Coordinator will inform you.

- Locate the nearest Gai-tronics or telephone and report your location to the OSF Coordinator.

## 5.2 OSF Coordinator

### 5.2.1 WHEN notified that an Emergency has been declared:

- a. Report to the OSF.
- b. IF an OSF Coordinator has been designated, until released, THEN assist the designated OSF Coordinator.
- c. IF an OSF Coordinator has NOT been designated, THEN notify the SAD of your intent to assume the responsibilities of the OSF Coordinator and continue implementation of this procedure.

### 5.2.2 Notify the SAD of your assumption of the responsibilities of the OSF Coordinator.

### 5.2.3 Obtain the ERO Response binder from the "TSC Material Locker."

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5.2.4 Verify an OSF Support Person is available to implement Step 5.3 of this procedure or assign another OSF staff member to this task.

5.2.5 Direct an OSF Assembly Area Staff Member to:

- a. Develop a list of OSF personnel resources by name and emergency duty position.
- b. If required, serve as Accountability Coordinator to maintain personnel accountability.
- c. Relay briefings during the course of the event.

5.2.6 Notify additional support personnel as needed, using the telephone numbers listed in the KPB Emergency Telephone Directory.

5.2.7 Obtain and maintain knowledge of "work in progress" and "work to be performed" upon arrival at the OSF and throughout the event.

**Note**

*Both the OSF and the TSC "High Priority Work" status boards must be in unison.*

- a. Post the jobs actually in progress with the priority (No. 1-7) assigned by the ED on the "High Priority Work" status board.
- b. Post the jobs awaiting team assignment on the "Lower Priority Work" status board.

5.2.8 Provide updates to the OSF Support Person, SAD, and TSC Data Coordinator as needed, to maintain the "High Priority" and "Lower Priority" status boards current.

5.2.9 Brief the OSF Staff periodically on priority and pending work.

5.2.10 Ensure an OSF Event Log of all significant events and actions is maintained. Including as a minimum:

- a. Date
- b. Time
- c. Significant Event/Action
- d. Name of person information was received from or sent to
- e. Initials of person making log entry

5.2.11 Assist the SAD as required for evaluation of equipment and material necessary to support the emergency response organization.

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5.2.12 Assist the SAD in the review of work requests and the planning and scheduling of work as required.

5.2.13 Implement emergency repair and modifications on plant equipment and systems as directed by the SAD in accordance with "Work Requests During an Emergency," EPIP-OSF-03.

a. Ensure pre-job briefings are conducted using "Operational Support Facility Team Briefing," Form EPIP-OSF-03-01.

5.2.14 Implement search and rescue operations as directed by the SAD in accordance with EPIP-OSF-04.

5.2.15 Provide manpower, equipment, and material necessary to support the emergency organization.

5.2.16 Support accountability of OSF staff members through the designated Accountability Coordinator in the TSC.

5.2.17 If appropriate, plan a shift relief for OSF Support Personnel per "Emergency Response Organization Shift Relief Guideline," EPIP-AD-05.

5.2.18 IF Final Conditions (Section 6.0) have NOT been met, THEN return to Step 5.2.7.

5.2.19 WHEN Final Conditions are met (Section 6.0):

a. Verify all work areas are returned to normal status and emergency procedures, forms, etc., are returned to their proper place.

b. Collect all completed forms, notes, and other documentation and give them to the TSCD.

### 5.3 OSF Support Person

5.3.1 WHEN notified that an Emergency has been declared:

a. Report to the OSF.

b. IF an OSF Support Person has been designated, until released, THEN assist the designated OSF Support Person.

c. IF an OSF Support Person has NOT been designated, THEN notify the OSF Coordinator of your intent to assume the responsibilities of the OSF Coordinator and continue implementation of this procedure.

5.3.2 Ensure that copies of "Operational Support Facility Team Briefing," Form EPIP-OSF-03-01, are available.

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- 5.3.3 Maintain OSF Status Boards as directed by the OSF Coordinator.
- 5.3.4 Maintain an "OSF Event Log" of significant events, announcements, and OSF Coordinator priorities.
- 5.3.5 Record incoming and outgoing ad hoc telephone messages on "Telephone Communications Log Sheet," Form EPIPF-EOF-04-02.
- 5.3.6 Inform the OSF Coordinator promptly of information received from maintenance teams in the field or other support organizations.
- 5.3.7 When requested, make document copies.

#### 5.4 Operations Staff Support

- 5.4.1 Operations Staff reporting to the OSF may be needed to support the Control Room or the OSF. Priority should be given to the Control Room for the use of their time.

##### **Note**

*The dispatch of Operations Personnel from the OSF must be coordinated between the EOD and the ED to prevent conflicting or redundant assignments. SROs in the OSF need to make sure that they do not compromise the decisions or priorities of the on shift Shift Manager.*

- 5.4.2 Operations Staff in the OSF may be asked to provide support for:
  - a. Tag-out preparation.
  - b. System and component location information.
  - c. Work package preparation.
  - d. Direct assignment to maintenance repair teams.

- 5.5 IF it becomes necessary to relocate or evacuate the OSF/TSC, THEN the following guidance should be utilized to maintain the functionality of the OSF:
  - a. OSF Assembly Area personnel should be relocated with the guidance and direction of the Radiological Protection Director (RPD) and may be concurrent with the relocation of the Radiological Assessment Facility.
  - b. The OSF Coordinator should relocate with the OSF Assembly Area and establish and maintain communications with the Support Activities Director.
  - c. Team tracking and logging activities should be maintained and continued at the new OSF location in accordance with Section 5.2.

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## 6.0 Final Conditions

- 6.1 Plant emergency has been Terminated or Recovery actions have begun and the responsible director has suspended the use of EIPs.

## 7.0 References

- 7.1 Kewaunee Nuclear Power Plant Emergency Plan
- 7.2 EPIP Appendix A-1, Communication System Description
- 7.3 EPIP-AD-05, Emergency Response Organization Shift Relief Guideline
- 7.4 EPIP-OSF-03, Work Requests During an Emergency
- 7.5 EPIP-OSF-04, Search and Rescue
- 7.6 EPIP-SEC-03, Personnel Assembly and Accountability
- 7.7 EPIP-SEC-05, Personnel Evacuation
- 7.8 EPIP-TSC-02, Technical Support Center Activation

## 8.0 Records

- 8.1 The following QA records and non-QA records are identified in this directive/procedure and are listed on the KNPP Records Retention Schedule. These records shall be maintained according to the KNPP Records Management Program.

### 8.1.1 QA Records

- OSF Event Log
- Telephone Communications Log Sheet, Form EPIPF-EOF-04-02
- Operational Support Facility Team Briefing, Form EPIPF-OSF-03-01

### 8.1.2 Non-QA Records

None

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Reviewed By Craig Long			Approved By Jerrie Morlino		
Nuclear Safety Related	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	PORC Review Required	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	SRO Approval Of Temporary Changes Required	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## 1.0 Purpose

- 1.1 This procedure provides instruction for activation of the RPO/RAF.

## 2.0 General Notes

- 2.1 The RPO and RAF are activated in parallel with functions performed from both facilities as environmental and radiological conditions permit.

## 3.0 Precautions and Limitations

- 3.1 If the RPO becomes uninhabitable or high background radiation levels make instrumentation unusable, then relocate to the RAF.
- 3.2 If the RAF and Technical Support Center (TSC) must be evacuated or relocated, then use the guidance in Section 5.3 to assist in maintaining the functionality of the RAF.

## 4.0 Initial Conditions

- 4.1 An Alert or higher emergency has been declared at the Kewaunee Nuclear Power Plant (KNPP).

## 5.0 Procedure

### Note

*Unless otherwise stated, the following tasks may be performed in any order or concurrently.*

### 5.1 RPO/RAF Activation

- 5.1.1 IF the emergency occurs on a back shift, THEN the Radiation Technologist(s) on shift shall report to the RPO and control radiological responses until relieved by the incoming In-Plant Radiation Emergency Team (IRET) members and the Radiation Protection Director (RPD).
- 5.1.2 The on-shift Radiation Technologist shall assume the responsibilities of the RPD until relieved.

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**Note**

*Site Boundary Facility (SBF) activation is required upon declaration of an ALERT.*

5.1.3 Dispatch an IRET member to the SBF to assume the duties of the SBF Coordinator.

5.1.4 Activate the RPO as follows:

5.1.4.1 Assign a Radiation Protection Leadman and a support staff (technologists/clerks) to the RPO.

5.1.4.2 Direct the Radiation Protection Leadman to process non-essential personnel out of the Auxiliary Building/Containment and maintain personnel accountability.

5.1.4.3 Establish Auxiliary Building/Containment accountability as follows:

5.1.4.3.1 Determine who is in the Radiologically Controlled Area (RCA) by checking PMETS System or (if used) the RCA sign-in sheets.

5.1.4.3.2 Notify the RPD immediately of any missing persons.

5.1.4.3.3 IF personnel are believed missing, THEN implement EPIP-OSF-04, "Search and Rescue."

5.1.4.4 Set up instrumentation for continuous monitoring of radiation levels in the RPO.

**Note**

*Periodically perform habitability surveys of required areas based upon radiological conditions and/or as directed by the RPD.*

5.1.4.5 Perform general area surveys in the following areas:

- RPO
- Monitor room
- Change room
- Machine Shop
- Electric Shop
- Hallway west of Electric Shop/Fire Team Assembly Area

5.1.4.6 WHEN airborne grab samples are taken, THEN record the information on Form EPIP-RET-02A-02, "Emergency Sample Worksheet."

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**Note**

*IF radiological conditions require the relocation of the RPO to the RAF, THEN ensure that all personnel (i.e., Fire Teams) in areas of elevated dose rates are relocated as necessary.*

**5.2 RAF Activation**

5.2.1 Verify operability of the following RAF equipment:

- a. SPING channel readings (additional resource is the Honeywell graphic output 12 for SPING data, 13 for non-SPING data.)
- b. Fixed radiation monitoring equipment
- c. "RADAC" RMS Control Console
- d. Radio communications equipment
- e. Count Room equipment

5.2.2 WHEN the above checks are complete, THEN notify the following that the RAF is activated:

- RAF staff
- TSC
- EPD (if available)

5.2.3 IF directed by the RPD, THEN relocate from the RPO to the RAF.

5.2.4 Maintain personnel accountability per EPIP-SEC-03, "Personnel Assembly and Accountability," during the move from the RPO to the RAF.

5.2.5 Direct personnel who are NOT members of the Emergency Response Organization (ERO) to another assembly point.

5.2.6 Direct evacuating RPO (Radiation Protection and Chemistry) personnel to move the following items to the RAF:

- a. Calculators
- b. Handheld portable radios
- c. Portable radiation survey meters
- d. Most recent CREWDOSE report
- e. Master keys and key ring
- f. Auxiliary Building sign-in sheets (if being used)



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- g. RPO logbook
- h. Personnel TLD badges and control badges
- i. First aid responder kit
- j. Electronic dosimeters

5.2.7 Make the following announcement over the plant paging system:

**“ATTENTION, ATTENTION: THE RPO HAS BEEN RELOCATED; THE RPO HAS BEEN RELOCATED, ALL CONTROLLED AREA ENTRIES ARE TO BE MADE THROUGH THE RAF.”**

5.2.8 Post signs in the RPO directing personnel to the RAF for entry to the controlled area.

5.2.9 Periodically (at least every 4 hours) perform radiation surveys in the RAF and TSC to ensure habitability.

5.2.10 IF an Alert or higher is declared based on radiological conditions, OR if directed by the RPD, THEN issue dosimetry to all personnel remaining on-site.

5.2.11 Using the Gai-tronics, direct personnel to monitor their individual dose.

5.2.11.1 IF the Self Reading Dosimeter (SRD) meets any of the following limits, THEN report to the RPO/RAF/SBF to have the SRD re-zeroed:

- a. Reads 150 mR or more
- b. Is found to be off-scale
- c. The end of the work shift

5.3 IF it becomes necessary to evacuate or relocate the RAF, THEN the RPD should consider the following guidance in order to maintain the functionality of the RAF.

5.3.1 The RPD should coordinate with the Emergency Director (ED), Support Activities Director (SAD), and the OSF Coordinator to perform the evacuation or relocation and maintain as much as possible of the functionality of the affected facilities.

5.3.2 The RPD should consider the following in making the evacuation/relocation:

- Communications with the ED, SAD, and OSF Coordinator
- Radiation and contamination monitoring capabilities
- Transport of necessary equipment and supplies to the alternate location

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- Continuation of coverage and documentation of exposure to emergency teams
- Evacuation or relocation of excess or unnecessary personnel
- Collection, documentation, and transport for analysis of sample and survey results

## 6.0 Final Conditions

- 6.1 Plant Emergency has been Terminated or Recovery actions have begun and the Emergency Response Manager has suspended the use of EIPs.

## 7.0 References

- 7.1 EPIP-SEC-03, Personnel Assembly and Accountability
- 7.2 EPIP-OSF-04, Search and Rescue
- 7.3 COMTRAK 89-305, Item 2
- 7.4 COMTRAK 89-305, Item 3

## 8.0 Records

- 8.1 The following QA records and non-QA records are identified in this directive/procedure and are listed on the KNPP Records Retention Schedule. These records shall be maintained according to the KNPP Records Management Program.

### 8.1.1 QA Records

- Emergency Sample Worksheet, Form EPIPF-RET-02A-02

### 8.1.2 Non-QA Records

None

# EMERGENCY DOSIMETER LOG

DATE: \_\_\_\_\_

PAGE \_\_\_\_\_ OF \_\_\_\_\_

NAME	TLD BADGE NO.	SRD INITIAL READING	TIME ISSUED	SRD FINAL READING	TIME RETURNED

# FUEL ROD OVERTEMPERATURE DAMAGE ESTIMATE

1. Time since reactor shutdown (hrs) from Form EIPF-TSC-09A-05 \_\_\_\_\_
2. Radiation level (Rad/hr) for 100% core overtemperature damage from Figure 4 EIPF-TSC-09A \_\_\_\_\_
3. Containment high range radiation level (Rad/hr) from Form EIPF-TSC-09A-05 \_\_\_\_\_
4. 
$$\% \text{ Core Damage}_{\text{CRM}} = \frac{\text{Containment High Range Radiation Level}}{\text{Containment Radiation Level for 100\% Overtemperature Damage}} \times 100\% =$$
 \_\_\_\_\_
5. Number of CETs > 1800°F from Form EIPF-TSC-09A-02 \_\_\_\_\_
6. Number of operable CETs from Form EIPF-TSC-09A-02 \_\_\_\_\_
7. 
$$\% \text{ Core Damage}_{\text{CET}} = \frac{\text{Number of CETs} > 1800^{\circ}\text{F}}{\text{Number of Operable CETs}} \times 100\% =$$
 \_\_\_\_\_
8. Hydrogen concentration in containment (%) from Form EIPF-TSC-09A-05 \_\_\_\_\_
9. Containment pressure (psig) from Form EIPF-TSC-09A-05 \_\_\_\_\_
10. H<sub>2</sub> concentration (%) at 100% overtemperature damage from Figure 5 EIPF-TSC-09A \_\_\_\_\_
11. 
$$\% \text{ Core Damage}_{\text{HYD}} = \frac{\text{Hydrogen Concentration in Containment}}{\text{H}_2 \text{ Concentration at 100\% Overtemperature}} \times 100\% =$$
 \_\_\_\_\_
12. RCS pressure (psig) from Form EIPF-TSC-09A-05 \_\_\_\_\_
13. RVLIS level (from Form EIPF-TSC-09A-05) at 0%  
(Circle no if one or both Reactor Coolant Pump is on) \_\_\_\_\_  
YES / NO
14. Hot leg RTD temperature GREATER THAN 650°F \_\_\_\_\_  
YES / NO
15. Source range monitor GREATER THAN 200 COUNTS PER SECOND \_\_\_\_\_  
YES / NO
16. 
$$\left| \frac{\% \text{ Core Damage}_{\text{CRM}} - \% \text{ Core Damage}_{\text{CET}}}{\% \text{ Core Damage}_{\text{CRM}}} \times 100\% \right| \text{ LESS THAN } 50\%$$
 \_\_\_\_\_  
YES / NO
17. 
$$\left| \% \text{ Core Damage}_{\text{CRM}} - \% \text{ Core Damage}_{\text{HYD}} \right| \text{ LESS THAN } 25\%$$
 \_\_\_\_\_  
YES / NO
18. 
$$\left| \% \text{ Core Damage}_{\text{CET}} - \% \text{ Core Damage}_{\text{HYD}} \right| \text{ LESS THAN } 25\%$$
 \_\_\_\_\_  
YES / NO

Explanation of Deviations:

Core Damage Estimate: \_\_\_\_\_%

Core Hydraulics Engineer \_\_\_\_\_ Date \_\_\_\_\_