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July 14, 2003  
LIC-03-0098

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

Reference: Docket No. 50-285

**SUBJECT: Transmittal of Changes to Emergency Plan Implementing Procedures (EPIP)**

In accordance with 10 CFR 50.54(q), 10 CFR 50, Appendix E, Section V, and 10 CFR 50.4(b)(5), please find EPIP packages enclosed for the Document Control Desk (holder of Copy 165) and the NRC Region IV Plant Support Branch Secretary (holder of Copies 154 and 155).

The document update instructions and summary of changes are included on the Confirmation of Transmittal from (Form EP-1) attached to each controlled copy change package. Please return the Confirmation of Transmittal forms by August 29, 2003.

The revised documents included in the enclosed package are:

EPIP Index page 1 of 3 issued 07/02/03  
EPIP EOF-11 R20 issued 07/02/03

If you have any questions regarding the enclosed changes, please contact Mr. Carl Simmons at (402) 533-6430.

Sincerely,



R. T. Ridenoure  
Division Manager  
Nuclear Operations

RTR/ckf

Enclosures

c: NRC Region IV Plant Support Branch Secretary (2 sets)  
Alan Wang, NRC Project Manager (w/o enclosures)  
J. G. Kramer, NRC Senior Resident Inspector (w/o enclosures)  
Emergency Planning Department (w/o enclosures)

A045

OMAHA PUBLIC POWER DISTRICT

Confirmation of Transmittal for  
Emergency Planning Documents/Information

<input type="checkbox"/> Radiological Emergency Response Plan (RERP)	<input checked="" type="checkbox"/> Emergency Plan Implementing Procedures (EPIP)	<input type="checkbox"/> Emergency Planning Forms (EPF)
<input type="checkbox"/> Emergency Planning Department Manual (EPDM)	<input type="checkbox"/> Other Emergency Planning Document(s)/ Information	

Transmitted to:

Name: Document Control Desk Copy No: 165  
Division of Reactor Safety Copy No: 154  
Attn: Senior Emergency Preparedness Inspector  
Division of Reactor Safety Copy No: 155  
Attn: Senior Emergency Preparedness Inspector

Date: \_\_\_\_\_

The following document(s) / information are forwarded for your manual:

REMOVE SECTION

EPIP Index page 1 of 3 issued 06/19/03  
EPIP EOF-11 R19 issued 04/03/03

INSERT SECTION

EPIP Index page 1 of 3 issued 07/02/03  
EPIP EOF-11 R20 issued 07/02/03

**Summary of Changes:**

EPIP EOF-11 was revised per writers guide. Also revised to clarify how emergency worker extensions are made.

*Ronald E. Meng*  
FOA Supervisor - Emergency Planning

I hereby acknowledge receipt of the above documents/information and have included them in my assigned manuals.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Please sign above and return by 08/29/03 to:

Beth Nagel  
Fort Calhoun Station, FC-2-1  
Omaha Public Power District  
444 South 16<sup>th</sup> Street Mall  
Omaha, NE 68102-2247

NOTE: If the document(s)/information contained in this transmittal is no longer requested or needed by the recipient, or has been transferred to another individuals, please fill out the information below.

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Document	Document Title	Revision/Date
EPIP-OSC-1	Emergency Classification	R35 05-02-02
EPIP-OSC-2	Command and Control Position Actions/Notifications	R42 05-28-03
EPIP-OSC-9	Emergency Team Briefings	R7 12-09-99
EPIP-OSC-15	Communicator Actions	R22 10-24-00a
EPIP-OSC-21	Activation of the Operations Support Center	R12 10-29-02a
EPIP-TSC-1	Activation of the Technical Support Center	R24 06-19-03
EPIP-TSC-2	Catastrophic Flooding Preparations (R0 03-22-95) DELETED (05-09-95) REINSTATED	R3 01-23-03
EPIP-TSC-8	Core Damage Assessment	R14 01-19-01
EPIP-EOF-1	Activation of the Emergency Operations Facility	R13 10-29-02
EPIP-EOF-3	Offsite Monitoring	R18 11-12-02
EPIP-EOF-6	Dose Assessment	R32 01-23-02a
EPIP-EOF-7	Protective Action Guidelines	R14 04-15-03
EPIP-EOF-10	Warehouse Personnel Decontamination Station Operation	R10 01-13-00a
EPIP-EOF-11	Dosimetry Records, Exposure Extensions and Habitability	R20 07-02-03

DOSIMETRY RECORDS, EXPOSURE EXTENSIONS AND HABITABILITY

**NON-SAFETY RELATED**

1. PURPOSE

- 1.1 This procedure provides instruction for issuing dosimetry, maintaining dosimetry records and habitability during declared emergencies.

2. REFERENCES/COMMITMENT DOCUMENTS

- 2.1 Code of Federal Regulations (10 CFR 20 and 10 CFR 50)
- 2.2 RP-201, Radiation Work Permits
- 2.3 RP-203, Air Sample Collection and Analysis
- 2.4 RP-204, Radiological Area Controls
- 2.5 RPI -6, Alternate Access Control of Radiologically Controlled Area
- 2.6 FC-RP-214-3, RCA Access Refresher Briefing
- 2.7 EPIP-EOF-21, Potassium Iodine Issuance
- 2.8 SAP-19, Dosimetry Issue Emergency Personnel
- 2.9 EPA-400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents
- 2.10 Ongoing Commitment Documents
- AR 11809, LIC-91-189R

3. DEFINITIONS

None

4. PREREQUISITES

None

## 5. PROCEDURE

**NOTE:** Radiation Work Permits are required for all normal entries into a Radiation Controlled Area. Entries under emergency conditions may be exempted from the RWP requirement if approved by Radiation Protection personnel. This approval may be granted by a Shift Radiation Protection Technician, a Radiation Protection Coordinator or a Protective Measures Coordinator. Radiation Protection personnel must accompany any personnel making an entry without an approved RWP.

**NOTE:** TLDs will normally be obtained from Security when reporting to the site. Extra TLDs are available at the Security buildings, and will be issued to those who need them per SAP-19.

- 5.1 To perform dosimetry issuance in the Control Room, use Attachment 6.1.
- 5.2 To perform dosimetry issuance in the Technical Support Center, use Attachment 6.2.
- 5.3 To perform dosimetry issuance in the Operations Support Center, use Attachment 6.3.
- 5.4 To perform dosimetry issuance in the Emergency Operations Facility use Attachment 6.4.
- 5.5 To approve emergency worker exposure, use Attachment 6.5.
- 5.6 To perform habitability surveys, use Attachment 6.6.
- 5.7 Retain all documentation (logs, assessments, etc.) generated or used during the emergency. At the termination, deliver all documentation to the TSC Administrative Logistics Coordinator in the TSC, or the EOF Administrative Logistics Manager in the EOF.

## 6. ATTACHMENTS

- 6.1 Dosimetry Issuance in the Control Room
- 6.2 Dosimetry Issuance in the Technical Support Center
- 6.3 Dosimetry Issuance in the Operations Support Center
- 6.4 Dosimetry Issuance in the Emergency Operations Facility
- 6.5 Approving Emergency Worker Exposure
- 6.6 Performing Habitability Surveys

Attachment 6.1 - Dosimetry Issuance in The Control Room

1. Obtain the Dosimetry Issue Kit from the Control Room Emergency Gear Locker.
2. IF a Radiation Control Area (RCA) access point has been established at the Control Room exit, THEN perform the following. Otherwise, go to Step 3.
  - 2.1 Determine the range of the SRDs (Self Reading Dosimeters) to be issued, from the Shift Radiation Protection Technician or the Radiation Protection Coordinator.
  - 2.2 Zero all dosimeters prior to issue.

**NOTE:** If the individual is leaving site or reporting to the TSC, OSC or another location not requiring an RWP, determine dosimetry requirements per the Shift Radiation Protection Technician or the Radiation Protection Coordinator.

  - 2.3 Issue a self reading dosimeter to all personnel who are entering the RCA and do not have an electronic alarming dosimeter (EAD).
  - 2.4 Record dosimetry issue and RCA access information on Form FC-RP-214-2.
  - 2.5 Upon return of the individual(s), record the RCA exit and accumulated dose information on Form FC-RP-214-2.
3. For personnel who are dispatched to an RCA to perform a job that requires a Radiation Work Permit, perform the following:
  - 3.1 Determine if a SRD is required to be worn while in transit to the normal RCA access point, and issue per Step 2.
  - 3.2 Instruct personnel to go to the main access control point to obtain an EAD and sign in on the required RWP.
  - 3.3 For personnel who were issued a SRD per Step 2.1, report any difference in the SRD versus EAD dose to the Shift RP Technician, as this may indicate that dose was accumulated while in transit to and from the normal RCA access point.
4. If Radiation Protection personnel determine it is necessary for all individuals to wear a TLD, issue TLDs to personnel who do not have a TLD using Form FC-1189.

Attachment 6.2 - Dosimetry Issuance In The Technical Support Center (TSC)

1. Obtain the Dosimetry Issue Kit from the TSC Emergency Gear Locker.
2. IF a Radiation Control Area (RCA) access point has been established at the TSC exit, THEN perform the following. Otherwise, go to Step 3.
  - 2.1 Determine the range of the SRDs (Self Reading Dosimeters) to be issued, from the Shift Radiation Protection Technician or the Radiation Protection Coordinator.
  - 2.2 Zero all dosimeters prior to issue.

**NOTE:** If the individual is leaving site or reporting to the OSC, Control Room or another location not requiring an RWP, determine dosimetry requirements per the Shift Radiation Protection Technician or the Radiation Protection Coordinator.

  - 2.3 Issue a self reading dosimeter to all personnel who are entering the RCA and do not have an electronic alarming dosimeter (EAD).
  - 2.4 Record dosimetry issue and RCA access information on Form FC-RP-214-2.
  - 2.5 Upon return of the individual(s), record the RCA exit and accumulated dose information on Form FC-RP-214-2.
3. For personnel who are dispatched to an RCA to perform a job that requires a Radiation Work Permit, perform the following:
  - 3.1 Determine if a SRD is required to be worn while in transit to the normal RCA access point, and issue per Step 2.
  - 3.2 Instruct personnel to go to the main access control point to obtain an EAD and sign in on the required RWP.
  - 3.3 For personnel who were issued a SRD per Step 2.1, report any difference in the SRD versus EAD dose to the Shift RP Technician or the Radiation Protection Coordinator, as this may indicate that dose was accumulated while in transit to and from the normal RCA access point.
4. If Radiation Protection personnel determine it is necessary for all individuals to wear a TLD, issue TLDs to personnel who do not have a TLD using Form FC-1189.

**Attachment 6.3 - Dosimetry Issuance In The Operations Support Center (OSC)**

- 1. Obtain the Dosimetry Issue Kit in the OSC.**
- 2. IF a Radiation Control Area (RCA) access point has been established at the OSC exit, THEN perform the following. Otherwise, go to Step 3.**
  - 2.1 Determine the range of the SRDs (Self Reading Dosimeters) to be issued, from the Shift Radiation Protection Technician or the Radiation Protection Coordinator.**
  - 2.2 Zero all dosimeters prior to issue.**

**NOTE:** If the individual is leaving site or reporting to the TSC, Control Room or another location not requiring an RWP, determine dosimetry requirements per the Shift Radiation Protection Technician or the Radiation Protection Coordinator.

  - 2.3 Issue a self reading dosimeter to all personnel who are entering the RCA and do not have an electronic alarming dosimeter (EAD).**
  - 2.4 Record dosimetry issue and RCA access information on Form FC-RP-214-2.**
  - 2.5 Upon return of the individual(s), record the RCA exit and accumulated dose information on Form FC-RP-214-2.**
- 3. For personnel who are dispatched to an RCA to perform a job that requires a Radiation Work Permit, perform the following:**
  - 3.1 Determine if a SRD is required to be worn while in transit to the normal RCA access point, and issue per Step 2.**
  - 3.2 Instruct personnel to go to the main access control point to obtain an EAD and sign in on the required RWP.**
  - 3.3 For personnel who were issued a SRD per Step 2.1, report any difference in the SRD versus EAD dose to the Shift RP Technician or the Radiation Protection Coordinator, as this may indicate that dose was accumulated while in transit to and from the normal RCA access point.**
- 4. If Radiation Protection personnel determine it is necessary for all individuals to wear a TLD, issue TLDs to personnel who do not have a TLD using Form FC-1189.**



**Attachment 6.4 - Dosimetry Issuance in the Emergency Operations Facility (EOF)**

- 1. Obtain the Dosimetry Issue Kit.**
- 2. Issue a self reading dosimeter to all personnel that must pass a Radiation Controlled Area Control Point:**
  - 2.1 The Radiation Protection Coordinator shall determine what range of SRDs should be issued for the entry(ies).**
  - 2.2 Ensure the SRD indicates approximately zero and issue to the individual(s).**
  - 2.3 Record the dosimetry issue and RCA access information on Form FC-RP-214-2.**
  - 2.4 Upon return of the individual(s), record the accumulated dose and RCA exit information on Form FC-RP-214-2.**
- 3. If going to the plant site report to the TSC upon arrival.**
- 4. If Radiation Protection personnel determine it is necessary for all individuals to wear a TLD, issue TLDs to personnel who do not have a TLD using Form FC-1189.**

**Attachment 6.5 - Approving Emergency Worker Exposure**

**NOTE:** Verbal authorization may be given to emergency responders and Form FC-EPF-5 may be completed afterwards.

1. Obtain a Form FC-EPF-5 for each individual.

**NOTE:** The facility directors, Control Room Coordinator or Shift Manager in the Control Room, Site Director, or the TSC Director in the TSC, the OSC Director in the OSC or the Emergency Director in the EOF may authorize dose extension up to 5 REM TEDE per year during declared events for workers in their facility. The Command and Control position must authorize doses exceeding 5 Rem TEDE in a year using the criteria per RERP-Section K.

2. Upon authorization by the Command Control Position, complete Form FC-EPF-5. If the authorization is a verbal complete the form as soon as practical.
  - 2.1 Fill-in the top section as stated. Completed the description of the work or task section as much as possible.
  - 2.2 Fill-in the recommended TEDE increase, and if the exposure is to exceed 25 REM have the individual check the box.
  - 2.3 Have the authorizing signature filled-in. If it is a verbal authorization, have the signature filled-in as soon as possible. Then go to Step 3.
  - 2.4 The section for Dosimeter readings is to be filled-in only for exposures that are over 5 REM.
  - 2.5 After the individual's TLD has been read, the dose received will be updated on the individual's form 5.
3. Forward the completed Form FC-EPF-5 to the OSC RP Coordinator.

**Attachment 6.6 - Performing Habitability Surveys [AR 11809]**

- 1. Perform habitability surveys for radiation and radioactive material as directed by the Radiation Protection Coordinator or the Protective Measures Coordinator.**
- 2. Use the following as guidelines in the performance of habitability surveys:**
  - 2.1 A complete habitability survey should include a general area radiation survey, airborne particulate sample, airborne iodine sample, and a contamination survey. The survey results should be documented on a formal survey diagram, but a log entry of the results is acceptable.**
  - 2.2 Consult with the Radiation Protection Coordinator and/or Protective Measures Coordinator to determine if continued habitability surveys are necessary. Plant conditions may not require periodic surveys.**
  - 2.3 Habitability surveys, when necessary, should be performed at least once per hour. When levels start to increase, more frequent surveys should be made.**
  - 2.4 Installed equipment, such as a PING (Particulate, Iodine and Noble Gas monitor) and an area radiation monitor may be used for initial habitability determination when it is known that there is little possibility of a contamination control problem.**
  - 2.5 Should installed equipment be used, and any alarms occur, a complete habitability survey as described above must be performed.**
  - 2.6 Consult with the Radiation Protection Coordinator and/or Protective Measures Coordinator to determine if continued habitability surveys are necessary. Plant conditions may not require routine surveys.**
  - 2.7 If emergency conditions and/or background radiation levels prevent effective counting of samples, move to a lower background area, or retain the samples for counting at a later date.**
  - 2.8 If emergency conditions and/or background radiation levels interfere with whole body counting operations, this function may have to be postponed or performed at a counter located outside the Protected Area.**
  - 2.9 Survey results should be reported to the Radiation Protection Coordinator upon completion.**
- 3. For general area dose rates, use the following as guidelines for protecting personnel:**
  - 3.1 For general area dose rates >15 mRem/hr, issue SRDs (Self Reading Dosimeters).**

**Attachment 6.6 - Performing Habitability Surveys [AR 11809]**

- 3.2 For general area dose rates  $>100$  mRem/hr, consider relocating to areas of lower dose rates.**
- 3.3 For general area dose rates  $>1000$  mRem/hr, relocate to an area of lower dose rate. Only personnel needed to mitigate the consequences of the accident, save plant equipment or a human life should remain.**
- 4. For airborne radioactivity levels, use the following as guidelines for protecting personnel:**
  - 4.1 For airborne radioactivity levels  $>30\%$  of the Derived Air Concentration, post and control the area as an Airborne Radioactivity Area per RP-204.**
  - 4.2 For radioiodine concentrations  $>3.3\text{E-}8\mu\text{Ci/cc}$ , perform the following:**
    - 4.2.1 Multiply the concentration times  $1.25\text{E}6$  to determine the Thyroid dose rate in Rem/hr.**
    - 4.2.2 Multiply the Thyroid dose rate times the projected stay time to determine the projected Thyroid Committed Dose Equivalent (CDE) in Rem.**
    - 4.2.3 If the projected Thyroid CDE is  $>1$  Rem, consider relocation of personnel to an area of lesser concentration or the issue of SCBAs to exposed personnel.**
    - 4.2.4 If the projected Thyroid CDE is  $\geq 25$  Rem, issue potassium iodide per EPIP-EOF-21, or ensure exposed personnel wear SCBAs.**
- 5. For loose surface contamination, use the following as guidelines for protecting personnel:**
  - 5.1 For Contaminated Areas (per RP-204), consider relocation of personnel to an area of lesser contamination.**
  - 5.2 For Highly Contaminated Areas (per RP-204), monitor and relocate non-essential personnel to an area of lesser contamination.**