



Northern States Power Company

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April 10, 2000

US Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 License Nos. DPR-42
Docket Nos. 50-306 License Nos. DPR-60

Prairie Island EOF Emergency Plan
Implementing Procedures - F8

EOF Emergency Response Plan Implementing Procedures

Furnished with this letter are the NSP Prairie Island Nuclear Generating Plant EOF Emergency Plan Implementing Procedures F8. This revision includes the following procedures:

INDEXES: EOF Emergency Plant Implementing Procedures TOC

REVISIONS:

F8-12 Emergency Remp Rev 2

INSTRUCTIONS:

Please post changes in your copy of the Prairie Island Nuclear Generating Plant EOF Emergency Implementing Procedures. Procedures which have been superseded or deleted should be destroyed. Please sign and return the acknowledgment of this update to Bruce Loesch, Prairie Island Nuclear Generating Plant, 1717 Wakonade Drive East, Welch, MN 55089.

A045

If you have any questions, please contact Mel Agen at 651-388-1121 Extension 4240.



Joel P. Sorensen
Site General Manager
Prairie Island Nuclear Generating Plant

- c: USNRC - Doris Gonzalas, Region III (2 copies)
- NRC Resident Inspector (w/o attachment)
- J Silberg (w/o attachment)
- M Agen (w/o attachment)
- Records Management (Doc Control Copy) (w/o attachment)
- NL File (w/o attachment)

Mfst Num: 2000 - 0216
FROM : Bruce Loesch/Jane Rogers
TO : UNDERWOOD, BETTY J

Date : 04/03/00
Loc : Prairie Island

Copy Num: 213
Holder : DORIS GONZALEZ (US NRC)

SUBJECT : Revisions to CONTROLLED DOCUMENTS

Procedure #	Rev	Title
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Revisions:

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F8-12	2	EMERGENCY REMP
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UPDATING INSTRUCTIONS

Place this material in your Prairie Island Controlled Manual or File. Remove revised or cancelled material and recycle it. Sign and date this letter in the space provided below within ten working days and return to Bruce Loesch or Jane Rogers, Prairie Island Nuclear Plant, 1717 Wakonade Drive E., Welch, MN 55089.

Contact Bruce Loesch (ext 4664) or Jane Rogers (ext 4393) if you have any questions.

Received the material stated above and complied with the updating instructions

_____ Date _____

<p>PRAIRIE ISLAND NUCLEAR GENERATING PLANT NORTHERN STATES POWER COMPANY</p>	<p>Title: EOF Emerg Plan Implementing Procedures TOC</p> <p>Effective Date : 04/03/00</p>
<p>Approved By: <u>Joyce Chitky /sj</u> BPS Supt</p>	

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Reviewed By: <u><i>[Signature]</i></u> Gen. Supt. Radiation Protection	Effective Date: <u>4-3-00</u>
Approved By: <u><i>[Signature]</i></u> Plant Manager	OC Review: <u>3-10-00 - JC.</u>

1.0 PURPOSE

REFERENCE USE
<ul style="list-style-type: none">• Procedure segments may be performed from memory.• Use the procedure to verify segments are complete.• Mark off steps within segment before continuing.• Procedure should be available at the work location.

The purpose of this procedure is to describe the Emergency Radiological Environmental Monitoring Program (EREMP).

2.0 APPLICABILITY

This procedure applies to the Radiation Protection Support Supervisor (RPSS), REMP Administrator (REMP ADMIN), and the REMP Field Technician(s).

3.0 PRECAUTIONS

IF the REMP field technician is not a qualified Radiation Protection Specialist (RPS) THEN he/she should be accompanied by a RPS when collecting samples after a radiological emergency to prevent contamination.

4.0 RESPONSIBILITIES

- 4.1 The Radiation Protection Support Supervisor (RPSS) is responsible for administering this procedure.
- 4.2 The REMP Administrator assists in administering this procedure.
- 4.3 The REMP Field Technician collects the samples in accordance with this procedure.

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5.0 DISCUSSION

5.1 REMP

5.1.1 REMP (Radiological Environmental Monitoring Program) is an established on-going program at the Prairie Island Nuclear Generating Plant. The program is designed to monitor radiation and radioactivity in the environs surrounding the plant. These measurements are then used as supporting evidence for evaluating the performance of plant equipment and systems that control release of radioactive material.

5.1.2 REMP provides for various environmental samples at established intervals and locations. The following is a list of the samples and their normal sample frequency:

- A. Air particulate and radioiodine sample filters - Continuous (changed weekly)
- B. TLD - Quarterly
- C. Milk - Monthly (Nov. through April)
- Biweekly (May through October)
- D. Well Water - Quarterly
- E. Drinking Water - Weekly
- F. Mississippi River Water - Weekly
- G. Cultivated Crops - Annually
- H. Fish and Invertebrates - Semiannually
- I. Bottom Sediment - Semiannually
- J. Shoreline Sediment - Semiannually

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5.1.3 REMP TLD's

A. There are five categories of REMP TLDs:

<u>Category</u>	<u>Location</u>
A	This group surrounds the plant at the site boundary.
B	This group surrounds the plant at a 4 to 5 mile distance from the plant.
S	Special interest areas.
IA, IB	Area around ISFSI (These do not contain Emergency TLD badges).
C	Control location beyond the 10 mile EPZ.

B. Maps which identify the REMP TLD and air monitoring station locations are available in each emergency response facility. See REMP sample location maps NF-114227 & NF-114231.

C. Two badges with 3 TLD's in each badge are encased in plastic with identification and placed at each exposure location.

1. One badge is identified as "Regular" and the other is marked "Emergency".
2. There are no "Emergency" badges in the ISFSI TLD's.
3. Under normal conditions, the plastic case is changed on a quarterly basis. In case of an unscheduled gaseous release, the "Emergency" badge may be detached from the "Regular" badge and sent to the laboratory for reading.
4. The "Regular" badges should be left in the holder until the next quarterly sampling period.

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5.1.4 REMP Air Monitoring Stations

- A. In order to determine the airborne radioactivity in the area around the plant site, air monitoring equipment is located in the sectors most likely to yield high averages of airborne contamination.
- B. There are four (4) REMP air monitoring stations near the plant which operate continuously to collect particulate material and radioiodine.
- C. There is one (1) REMP control air monitoring station outside the 10 mile EPZ.
- D. The location of each station is marked on the REMP sample location map NF-114231.
- E. Each facility is fenced and locked and accessed by the REMP Technician.
- F. The filters that collect particulate material and charcoal cartridges that collect radioiodine are changed weekly.

5.2 Emergency REMP

- 5.2.1 In the case of a radioactive release during emergency conditions, the Emergency TLDs should be collected and read after the release has been terminated.
- 5.2.2 It may be advantageous to collect the air particulate and radioiodine sample filters earlier than the normal weekly collection schedule depending on the release magnitude and time of the sampling cycle.
- 5.2.3 The remainder of the normal REMP sampling should be collected at its regularly scheduled time.
- 5.2.4 As a result of consultation with offsite officials, a modification of the existing REMP may be prudent as part of a long term monitoring plan.

6.0 PREREQUISITES

An emergency type release has occurred and the radioactive releases have been terminated.

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7.0 PROCEDURE

7.1 Radiation Protection Support Supervisor (RPSS)

7.1.1 **Determine** if the Emergency TLDs should be collected and read or the air monitoring filters and cartridges should be collected.

- A. For Alert and Site Area Emergency conditions, the Emergency set of TLDs may be collected for the affected sectors upon termination of the emergency condition or release.
- B. For the General Emergency condition, the Emergency set of TLDs should NOT be exchanged during any known release period to prevent unnecessary dose to technician. Considerations for exchanging the TLDs should include:
 - 1. Taking parallel actions with the state and NRC as deemed necessary.
 - 2. Need for providing interim data concerning the long term effects of the release on the environment.
 - 3. Need for providing immediate additional data concerning the extent of the release.
 - 4. The Regular set of TLDs should NOT be exchanged, except at the normal ninety-one day exchange date.

7.1.2 **Determine** if the air monitoring filters and cartridges should be collected earlier than the normal weekly collection.

- A. For Alert and Site Area Emergency conditions, the air monitoring filters and cartridges may be collected for the affected sectors upon termination of the emergency condition or radioactive release. However, **consider** leaving them in the field till the next regularly scheduled collection time.

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B. For the General Emergency condition, the air monitoring filters and cartridges should NOT be exchanged during any known release period to prevent unnecessary dose to technician. Considerations for exchanging the filters and cartridges should include:

1. Taking parallel actions with the state and NRC as deemed necessary.
2. Need for providing interim data concerning the immediate effects of the release on the environment.
3. Need for providing immediate additional data concerning the extent of the release.
4. Schedule for the regularly scheduled pickup of the filters and cartridges.

7.1.3 Determine if other elements of the regular REMP should be modified.

- A. This determination should be made in conjunction with consultation from other offsite agencies and consideration of the magnitude of the radioactive release.
- B. Sampling modifications to the REMP should be in addition to the historical REMP sampling to maintain an historical comparison data base.

7.1.4 IF it is determined by the RPSS that the Emergency TLD's and/or air monitoring filters and cartridges should be collected from the field, THEN:

- A. **Notify** REMP Administrator if not already done.
- B. **Direct** REMP Administrator or designee to collect the Emergency TLD's and/or air monitoring filters and cartridges from the field observing all the necessary precautions concerning radioactive contamination in the field.
- C. **Provide** appropriate radiation protection coverage for the REMP technician(s) collecting the samples.
- D. **Review** the laboratory results of the Emergency REMP sampling.

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7.2 REMP Administrator

IF it is determined by the RPSS that the Emergency TLD's and/or air monitoring filters and cartridges should be collected from the field, THEN the REMP Administrator should:

- 7.2.1 **Assist** RPSS in assessment of which samples should be collected and frequencies, if appropriate.
- 7.2.2 **Consider** the need for special radioactive shipment arrangements when shipping air filters and cartridges to the laboratory.
- 7.2.3 **Contact** REMP vendor and **request** that new sets of TLDs be immediately forwarded to NSP.
 - A. **Call** Teledyne Isotopes and **request** a set of Emergency TLDs be shipped "preferred air space" on the next commercial airline leaving O'Hare airport for Minneapolis.
 - B. **Arrange** for someone to meet the plane and pickup the package of TLD badges at the airline baggage office.
 - C. **Return** the exposed badges by placing them in the carton which the replacement badges arrived in, and reversing the above shipping procedure.
 - D. **Place** the "control" badge in the lead-shielded case located in the environmental lab station.
 - E. **Remind** persons involved in handling badges that the TLD badges are not to be put through the airport x-ray machines. It is better to open the package for visual inspection.
- 7.2.4 **Direct** REMP Technician(s) to collect the appropriate Emergency REMP samples.
- 7.2.5 **Ensure** the REMP Field Technician has appropriate Radiation Protection Specialists along to prevent contamination.
- 7.2.6 **Verify** sample completion from REMP Field Technician and **report** to RPSS.
- 7.2.7 **Review** the laboratory results of the Emergency REMP sampling with the RPSS.

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7.3 REMP Field Technician(s)

IF it is determined by the RPSS that the Emergency TLD's and/or air monitoring filters and cartridges should be collected from the field, THEN the REMP Field Technician should:

7.3.1 Collect the requested samples in accordance with the appropriate REMP sample collection procedures (RPIP 4730 series) and the REMP sampling location maps.

7.3.2 Ensure appropriate Radiation Protection measures are conducted to prevent contamination.

7.3.3 IF collecting Emergency TLDs THEN:

- A. **Detach** the Emergency TLD card from the Regular TLD card and **send** it to the laboratory for reading. The Regular TLD cards will be left in the holder until the next quarterly sampling period.
- B. **Ensure** the beginning and ending exposure times have been recorded on the shipping tab for each TLD.
- C. WHEN removing the Emergency TLDs, **take** them out of the plastic bag to prevent possible contamination, continued exposure and shipping of radioactive materials.
- D. **Place** the Emergency Control TLD badges from the control shield with the Emergency TLDs during shipment to the laboratory. The control badge establishes the transit radioactive dose to the badges.
- E. **Label** the package with "Do NOT X-Ray" labels prior to shipment.
- F. IF additional replacement badges are needed, THEN **call** the REMP contract laboratory to order more badges.

7.3.4 IF collecting air monitoring filters and cartridges THEN:

- A. **Ensure** the following material is available:
 - 1. Old substation key.
 - 2. A supply of particulate filters.
 - 3. A supply of charcoal filters.
 - 4. A supply of glassine envelopes.

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- B. **Ensure** the beginning and ending exposure times have been recorded on the shipping tabs.
- C. **Purge** the charcoal cartridges with clean air to purge out the xenon. An air sampler may be used in a clean area.
- D. **Consult** with the REMP Administrator or RPSS to determine the type of desired shipping.
- E. **Notify** REMP Administrator upon completion of sampling.