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July 29, 2002

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 Emergency Plan
Implementing Procedures - F3

Emergency Response Plan Implementing Procedures

Furnished with this letter are the Prairie Island Nuclear Generating Plant Emergency Plan Implementing Procedures F3. This revision includes the following procedures:

INDEXES: Emergency Plan Implementing Procedures TOC

REVISIONS

F3-19	Personnel & Equipment Monitoring & Decontamination	Rev 7
F3-26.2	Radiation Monitor Data on ERCS	Rev 7
F3-18	Thyroid Iodine Blocking Agent (Potassium Iodine)	Rev 10

DELETIONS
None

TEMPORARY CHANGE ADDITIONS

F3-2	2002-1369 Classification of Emergencies

INSTRUCTIONS:

Please post changes in your copy of the Prairie Island Nuclear Generating Plant Emergency Plan 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 Procedures, which have been superseded or deleted, should be destroyed.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.

Mano K. Nazar
Site Vice President
Prairie Island Nuclear Generating Plant

c: USNRC – Steve Orth, Region III (2 copies)
NRC Resident Inspector (w/o attachment)
M Agen (w/o attachment)
Records Management (Doc Control Copy) (w/o attachment)
NL File (w/o attachment)

Mfst Num: 2002 - 0568 Date : 07/26/02
FROM : Bruce Loesch/Mary Gadient Loc : Prairie Island
TO : UNDERWOOD, BETTY J
Copy Num: 515 Holder : US NRC DOC CONTROL DESK
SUBJECT : Revisions to CONTROLLED DOCUMENTS

****

Procedure #	Rev	Title
Revisions:		
F3-19	7	PERSONNEL & EQUIPMENT MONITORING & DECONTA
F3-26.2	7	RADIATION MONITOR DATA ON ERCS
F3-18	10	THYROID IODINE BLOCKING AGENT (POTASSIUM I
Temporary Change Additions:		
2002 1369 F3-2		CLASSIFICATIONS OF EMERGENCIES

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 Mary Gadient, Prairie Island Nuclear Plant, 1717 Wakonade Drive E., Welch, MN 55089.
Contact Bruce Loesch (ext 4664) or Mary Gadient (ext 4478) if you have any questions.

Received the material stated above and complied with the updating instructions

_____ Date _____

PRAIRIE ISLAND NUCLEAR GENERATING PLANT	Title: Emergency Plan Implementing Procedures TOC Effective Date : 07/26/02
Approved By: Joyce Chitty /BZ BPS Supt	

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PINGP 1300, Rev. 5
Retention: 6 years
Document Type: 1.190

TCN # 2002-1369
Effective Date: 7/26/2002
Expiration Date: 5/30/2003
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TEMPORARY CHANGE NOTICE
(5AWI 1.5.10)

I. CHANGE REQUEST

Procedure #: F3-2 Rev: 29 Project ID #:

WO #:

Title: Classification of Emergencies

Description of Change: Correct F3-2 ATTACHMENT 1 as follows:

(e.g page #, step #, summary/reason)

1) Page 36, EAL 11A, to be consistent with NUREG 0654 7/29/02
2) Page 56, EAL 19G, Added (ITS, Mode 3, Hot Standby) ~~reference~~ Modes 3, 4, or 5
3) Page 59, EAL 20A, deleted pass through EAL logic.
4) Page 56, EAL 19H, Modified to meet ITS. Standbys by adding Modes 7/24/02

Is this an OC reviewed procedure/critical WO? Yes ☒ No ☐

Is a permanent procedure change needed? Yes ☒ No ☐ If Yes, submit PINGP 436

Originator Leland E. Tomlin Employee #: FNHL01 Date: 6/28/2002

II. INITIAL REVIEWS

A. Is this a change in intent? Yes ☐ No ☒ If No, go to II B

1. OC Review Initial/Date (if procedure is OC reviewed/critical WO):
2. Procedure Approver (Work Supv for WO):

B. 10 CFR 50.59 Review

1. Is this change or procedure exempt from 10CFR 50.59 screening per 5AWI 3.3.5, App. A or B? Yes ☒ No ☐ If Yes, go to II.C
2. Complete 50.59 screening per 5AWI 3.3.5/PINGP 1229. Screening/Evaluation #

C. Does this change affect Special Reviews? Yes ☐ No ☒ If Yes, document Special Review(s) in CHAMPS

D. Does this change affect plant operation or Tech Specs? Yes ☐ No ☒ If Yes and work is in progress, SS notified by _____ (initial)

E. Do controlled copies need to be updated? Yes ☒ No ☐ If Yes, attach marked-up procedure pages to white copy

F. All master/working copies updated? Yes ☒ NA ☐

G. Is training on temporary change needed? Yes ☐ No ☒ If Yes, PINGP 1268 or PINGP 1224 (Ops Only) issued

III. REVIEW AND APPROVAL

Reviewer: 7-23-02 Date: 7-24-02
(Unit Management Staff)

Approver: Date: 7-24-02
(Unit Management Staff; SRO for OC reviewed procedures/critical WO)

Forward white copy to Procedure Control

IV. POST REVIEWS (required for OC reviewed procedures/critical WO; leave blank if reviewed/approved in II.A)

OC Review Initial/Date: Procedure Approver: Date:

V. TEMPORARY CHANGE DELETION (leave blank if controlled copies not updated, refer to II.E)

A. Reviewer: Date:
(Unit Management Staff)

B. Approver: Date:
(Unit Management Staff; SRO for OC reviewed procedures/critical WO)

White Copy - Procedure Control Yellow Copy - Attach to procedure

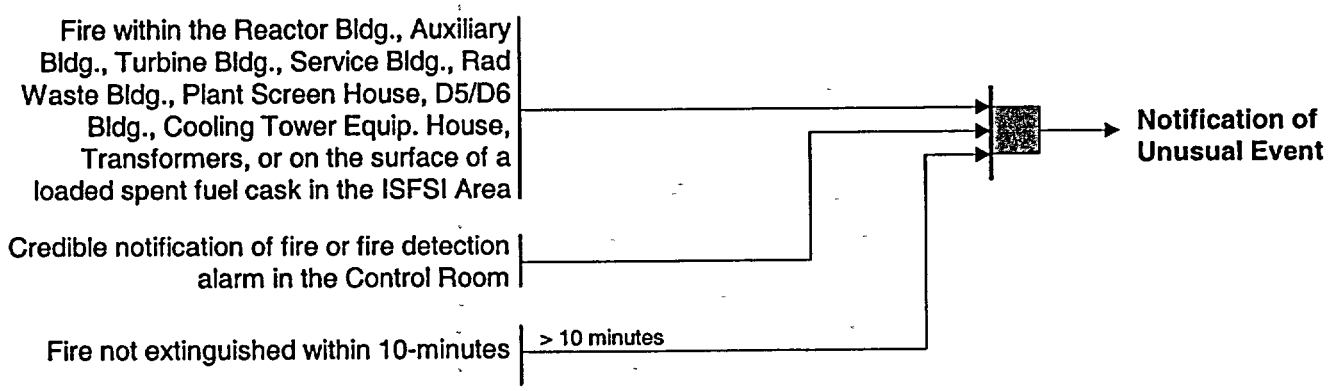
Condition 11 : Fires

TCN page 2 of 4

Fire within the plant or ISFSI lasting more than 10 minutes.

(EAL Ref Manual 11A)

Note: FIRE: is combustion characterized by heat and light (flame). Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

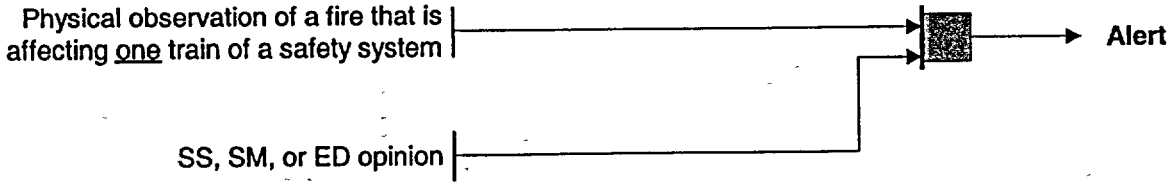


Note: The 10-minute time period begins with a report of a **FIRE** occurring or receipt of a fire detection system alarm. A fire alarm is assumed to be valid unless disproven within the 10-minute period by personnel dispatched to the scene.

Fire potentially affecting safety systems.

(EAL Ref Manual 11B)

Note: FIRE: is combustion characterized by heat and light (flame). Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.



Condition 19 : Natural Events

TCN page 3 of 4

50 Year Flood (EAL Ref Manual 19F)

River Intake Elevation | > 686 ft → **Notification of Unusual Event**

Flood levels approaching design levels (EAL Ref Manual 19G)

River Intake Elevation - (USAR 2.4.3.5) - requires both units to be shut down to Mode 2, 3, 4 or 5 | > 692 ft → **Alert**

Flood levels exceeding design levels with plant not in Mode 5, Cold Shutdown (EAL Ref Manual 19H)

Mode 1, 2, 3, or 4 | [redacted] → **Site Area Emergency**

River Intake Elevation - Power operation design level (highest level transformers will function) | > 698 ft → **Site Area Emergency**

Condition 20 : Other

TCN page 4 of 4

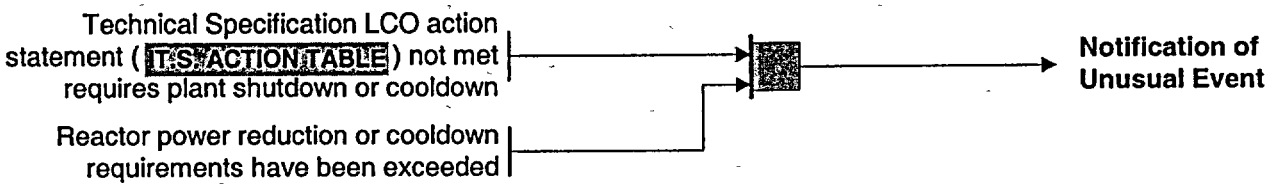
Conditions that warrant increased awareness on the part of plant operation staff or state and/or local offsite authorities.

(EAL Ref Manual 20A)

SM and SS concurrence that plant conditions warrant increased awareness → **Notification of Unusual Event**

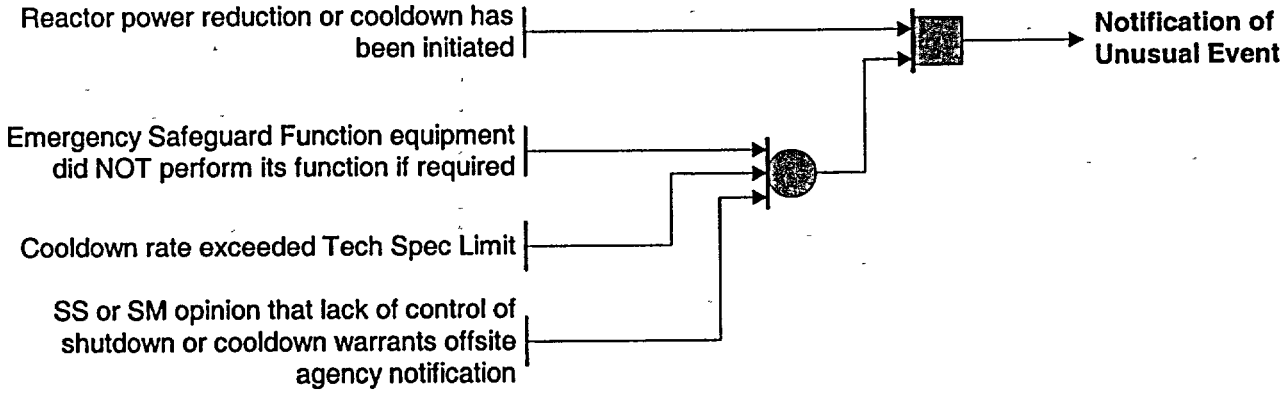
Inability to reach required shutdown within Technical Specification Limits.

(EAL Ref Manual 20B)



Conditions that involve other than normal controlled shutdown.

(EAL Ref Manual 20C)



F3	THYROID IODINE BLOCKING AGENT (POTASSIUM IODIDE)	NUMBER: F3-18
		REV: 10

REFERENCE USE

- *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.*

P.C. REVIEW DATE:	OWNER:	EFFECTIVE DATE
7-12-02	M. Werner	7-26-02

F3	THYROID IODINE BLOCKING AGENT (POTASSIUM IODIDE)	NUMBER: F3-18
		REV: 10

1.0 PURPOSE

This procedure provides instructions for the issuance of thyroid iodine blocking agent (Potassium Iodide Tablets).

2.0 APPLICABILITY

This Instruction **SHALL** apply to all plant personnel involved in the emergency organization at Prairie Island. This procedure does NOT apply to members of the general public offsite.

3.0 PRECAUTIONS

3.1 Thyroid blocking agents are to be used in a radiation emergency only.

3.2 Use only as directed by the Emergency Director.

3.3 Potassium Iodide **SHALL NOT** be used by anyone who is allergic to iodine.

3.4 Follow the dosage instructions carefully. Potassium Iodide should be taken as soon as possible after authorization by the Emergency Director.

3.5 Do not take more than one dose every 24 hours and do not take for more than 10 days unless directed by the Emergency Director.

3.6 In case of an allergic reaction, stop taking Potassium Iodide immediately. Contact your supervisor and a physician immediately.

4.0 PREREQUISITES

Dose assessment indicates a possible or actual thyroid exposure of 25 Rem CDE.

F3	THYROID IODINE BLOCKING AGENT (POTASSIUM IODIDE)	NUMBER: F3-18
		REV: 10

5.0 RESPONSIBILITIES

5.1 The Radiological Emergency Coordinator (REC) has the responsibility to assess and recommend to the Emergency Director when Potassium Iodide should be used.

5.2 The Emergency Director has the responsibility to authorize using Potassium Iodide when recommended by REC.

6.0 PROCEDURE

6.1 During emergency conditions, the Radiation Protection Group should **sample** areas of the plant where airborne iodine activity may exist.

NOTE:	**Since it is not feasible to conduct emergency operations with all emergency organization personnel wearing respiratory protection, the use of a thyroid blocking agent is highly recommended when thyroid dose could approach 25 REM CDE. (Final Recommendations, FDA, April, 1982)**

6.2 The Radiological Emergency Coordinator (REC) should **recommend**, to the Emergency Director, the use of Potassium Iodide WHEN:

6.2.1 Sample results indicate a possible thyroid exposure of 25 Rem CDE, using Figure 2 or Figure 3,

OR

6.2.2 A large uncontrolled iodine release is imminent, AND the projected thyroid exposure could approach 25 Rem CDE.

6.3 The Emergency Director should **authorize** the use of Potassium Iodide and **order** its distribution.

F3	THYROID IODINE BLOCKING AGENT (POTASSIUM IODIDE)	NUMBER: F3-18
		REV: 10

NOTE:	Use of Potassium Iodide SHALL be strictly on a voluntary basis.

6.4 The Coordinator at each of the emergency operating centers should complete the distribution of Potassium Iodide as follows:

6.4.1 **Distribute** supply of Potassium Iodide tablets and information that describes the use of the tablets (See Figure 1), to each individual in the emergency operating center.

6.4.2 **List** all individuals receiving Potassium Iodide on PINGP 651, Thryo-Block Distribution and **forward** to the Emergency Director.

6.4.3 **Instruct** each individual taking Potassium Iodide to read the informational on card. (See Figure 1).

6.4.4 **Report** any side effects to the Emergency Director so that a medical evaluation may be arranged.

6.5 Each individual should take the prescribed dosage of one tablet every twenty-four hours. This dosage should be taken for a maximum of ten days unless directed otherwise by the Emergency Director.

6.6 Conditions should be continually evaluated by the Radiological Emergency Coordinator to determine when the usage of Potassium Iodide may be terminated.

6.7 WHEN the need for Potassium Iodide no longer exists, THEN all emergency organization personnel issued Potassium Iodide should return all unused tablets to the Emergency Director or his designee.

6.8 Update records to verify that all unused Potassium Iodide tablets have been returned.

F3	THYROID IODINE BLOCKING AGENT (POTASSIUM IODIDE)	NUMBER: F3-18
		REV: 10

Figure 1

IOSAT™ Tablets

IOSAT™ Tablets

(Potassium Iodide Tablets, U.S.P.)
(Pronounced poe-TASS-e-um- EYE-oh-dyed)
(Abbreviated KI)

TAKE POTASSIUM IODIDE ONLY WHEN PUBLIC HEALTH OFFICIALS TELL YOU. IN A RADIATION EMERGENCY RADIOACTIVE IODINE COULD BE RELEASED INTO THE AIR. POTASSIUM IODIDE (A FORM OF IODINE) CAN HELP PROTECT YOU.

IF YOU ARE TOLD TO TAKE THIS MEDICINE, TAKE IT ONE TIME EVERY 24 HOURS. DO NOT TAKE IT MORE OFTEN. MORE WILL NOT HELP YOU AND MAY INCREASE THE RISK OF SIDE EFFECTS. DO NOT TAKE THIS DRUG IF YOU KNOW YOU ARE ALLERGIC TO IODIDE (SEE SIDE EFFECTS BELOW).

INDICATIONS
THYROID BLOCKING IN A RADIATION EMERGENCY ONLY

DIRECTIONS FOR USE
Use only as directed by State or local public health authorities in the event of a radiation emergency.

DOSE
ADULTS AND CHILDREN ONE YEAR OF AGE OR OLDER: One (1) tablet once a day. Crush for small children.

BABIES UNDER ONE YEAR OF AGE: One-half (1/2 tablet once a day. Crush first.

DOSAGE: Take for 10 days unless directed otherwise by State or local public health authorities. Store at controlled room temperature between 15° and 30°C (59° to 86°F). Keep package dry and foil packets intact.

WARNING
POTASSIUM IODIDE SHOULD NOT BE USED BY PEOPLE ALLERGIC TO IODIDE. Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician or public health authority.

DESCRIPTION
Each IOSAT™ Tablet contains 130 mg. of potassium iodide.

HOW POTASSIUM IODIDE WORKS
Certain forms of iodine help your thyroid gland work right. Most people get the iodine they need from foods like iodized salt or fish. The thyroid can "store" or hold only a certain amount of iodine.

In a radiation emergency, radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it. The damage would probably not show itself for years. Children are most likely to have thyroid damage.

If you take potassium iodide, it will fill up your thyroid gland. This reduces the chance that harmful radioactive iodine will enter the thyroid gland.

WHO SHOULD NOT TAKE POTASSIUM IODIDE
The only people who should not take potassium iodide are people who know they are allergic to iodide. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or antithyroid drug). Pregnant and nursing women and babies and children may also take this drug.

HOW AND WHEN TO TAKE POTASSIUM IODIDE
Potassium iodide should be taken as soon as possible after public health officials tell you. You should take one dose every 24 hours. More will not help you because the thyroid can "hold" only limited amounts of iodine. Larger doses will increase the risk of side effects. You will probably be told not to take the drug for more than 10 days.

SIDE EFFECTS
Usually, side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it for longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.

Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).

A few people have an allergic reaction with more serious symptoms. These could be fever and joint pains, or swelling of parts of the face or body and at times severe shortness of breath requiring immediate medical attention.

Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).

WHAT TO DO IF SIDE EFFECTS OCCUR
If the side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.

HOW SUPPLIED
IOSAT Tablets (Potassium Iodide Tablets, U.S.P.): packages of 14 tablets (NDC51803-001-01): Each white, round, scored tablet contains 130 mg. potassium iodide

Distributed by
ANBEX, INC.
15 W. 75th St., New York, N.Y. 10023

INDICATIONS: THYROID BLOCKING IN A RADIATION EMERGENCY ONLY.

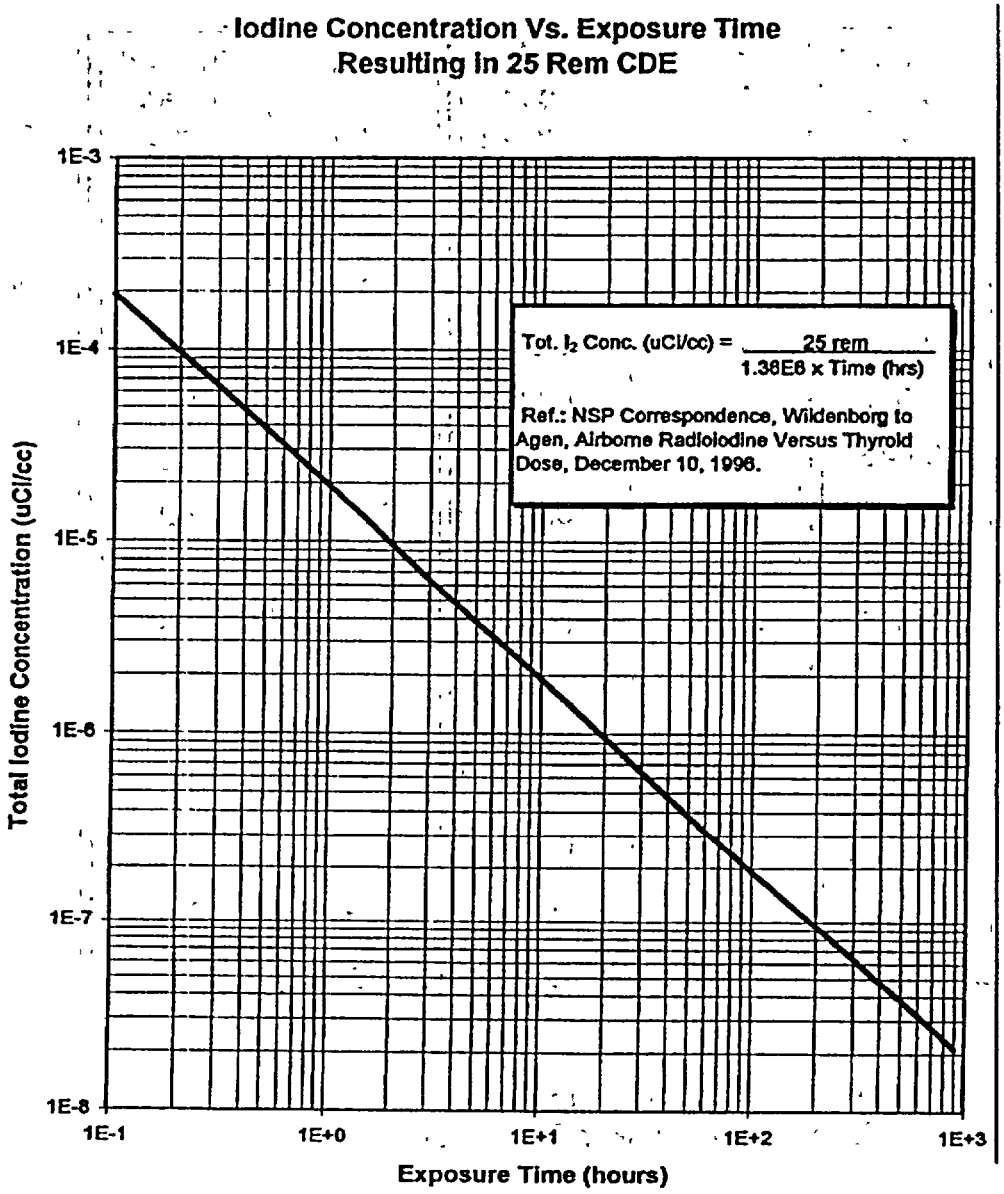
Figure 2 Frisker Count Rate vs. Thyroid Dose Rate

Net Count Rate (cpm)	Thyroid Dose Rate (rem/h)	Net Count Rate (cpm)	Thyroid Dose Rate (rem/h)	Net Count Rate (cpm)	Thyroid Dose Rate (rem/h)	Net Count Rate (cpm)	Thyroid Dose Rate (rem/h)
30	0.002	240	0.28	1400	1.3	7000	6.8
40	0.017	260	0.29	1600	1.5	8000	8.3
50	0.024	280	0.31	1800	1.7	9000	9.2
60	0.037	300	0.33	2000	1.8	10000	10
70	0.046	350	0.37	2200	2.0	12000	11
80	0.057	400	0.42	2400	2.2	14000	14
90	0.064	450	0.48	2600	2.6	16000	18
100	0.079	500	0.55	2800	2.8	18000	24
120	0.097	600	0.66	3000	2.9	20000	28
140	0.11	700	0.73	3500	3.3	25000	46
160	0.13	800	0.84	4000	3.9	30000	61
180	0.17	900	0.92	4500	4.6	35000	92
200	0.18	1000	1.1	5000	5.1	40000	110
220	0.22	1200	1.3	6000	5.9	45000	180

Based on: - 25 Cubic Foot Air Sample
- Silver Zeolite Frisker Count Rate

Reference: NSP Internal Correspondence, Wildenborg to Agen, Airborne Radioactive Versus Thyroid Dose, December 10, 1996.

Figure 3


Iodine Concentration Vs. Exposure Time
Resulting in 25 Rem CDE
Tot. I2 Conc. (uCi/cc) = 25 rem / 1.38E6 x Time (hrs)
Ref.: NSP Correspondence, Wildenborg to Agen, Airborne Radioiodine Versus Thyroid Dose, December 10, 1996.
Total Iodine Concentration (uCi/cc)
1E-3
1E-4
1E-5
1E-6
1E-7
1E-8
1E-1
1E+0
1E+1
1E+2
1E+3
Exposure Time (hours)

F	PERSONNEL AND EQUIPMENT MONITORING AND DECONTAMINATION	NUMBER: F3-19
		REV: 7

REFERENCE USE

- *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.*

O.C. REVIEW DATE:	OWNER:	Effective Date
071102 SC	M. Werner	7-26-02

F	PERSONNEL AND EQUIPMENT MONITORING AND DECONTAMINATION	NUMBER: F3-19
		REV: 7

1.0 PURPOSE

This procedure provides the guidance for contamination monitoring, contamination control, and decontamination procedures for personnel and equipment.

2.0 APPLICABILITY

This instruction **SHALL** apply to all Emergency Directors (ED) and all members of the Radiation Protection Group (RPG).

3.0 PRECAUTIONS

3.1 All personnel decontamination should be supervised by the RPG.

3.2 The safety of personnel **SHALL** take precedence over the monitoring of personnel and vehicles for radiation/contamination control purposes. Monitoring of personnel and/or vehicles **SHALL** be terminated (or not implemented) if such monitoring is known or suspected to be increasing the hazard to personnel during evacuation.

3.3 If any personnel are suspected to have received a biologically significant dose (dose exceeds twice the NRC Annual 10CFR20 Occupational Dose Limits), refer directly to the F3-12, Emergency Exposure Control.

4.0 RESPONSIBILITIES

4.1 The RPG has the responsibility to monitor personnel and equipment to determine if contaminated. When personnel or equipment is found contaminated, the RPG has the responsibility to document contamination levels and to coordinate the decontamination of personnel or equipment.

4.2 The Radiological Emergency Coordinator (REC) has the responsibility to authorize use of elevated contamination levels as listed in Attachment 1 under Emergency Guidelines.

4.3 The ED has the overall responsibility to ensure that radioactive contamination monitoring, control, and decontamination is being conducted throughout the emergency.

F	PERSONNEL AND EQUIPMENT MONITORING AND DECONTAMINATION	NUMBER: F3-19
		REV: 7

5.0 DISCUSSION

During emergency conditions, large areas of elevated surface contamination levels are probable within the plant boundaries. The REC should evaluate the contamination levels and determine if it would be beneficial to raise the contamination limits to the elevated guidelines in Attachment 1. The RPG should then control entry into the plant in accordance with these guidelines and monitor personnel and equipment exiting the plant per these guidelines. Decontamination of personnel and equipment to levels below these guidelines should be performed per applicable decontamination procedures.

6.0 PREREQUISITES

The Prairie Island Nuclear Generating Plant has declared an Emergency classification.

7.0 PROCEDURE

7.1 The RPG is responsible for contamination monitoring, control and decontamination.

7.1.1 All attempts should be made to maintain contamination levels below the normal guidelines, as per Attachment 1.

7.1.2 During emergency conditions, elevated contamination limits may be authorized by the REC, as per Attachment 1.

7.2 Personnel Monitoring and Decontamination

7.2.1 **Monitor** personnel who evacuated directly out of the Radiological Controlled Area first.

7.2.2 **Survey** and **document** results on PINGP 985, Personnel and Vehicle Survey Log.

7.2.3 IF contamination is found, THEN **initiate** PINGP 915, Whole Body Survey Form.

7.2.4 **Segregate** monitored personnel into 3 groups using the following criteria.

Highly Contaminated	≥ 5000 CCPM
Contaminated	≥ 100 CCPM
NOT Contaminated	< 100 CCPM

7.2.5 **Decontaminate** Highly Contaminated personnel (≥ 5000 CCPM) first, followed by the Contaminated personnel (≥ 100 CCPM).

7.2.6 IF personnel contamination is found around the individual's mouth and nose THEN **obtain** a nasal smear.

7.2.7 IF the results are ≥ 100 CCPM, THEN **indicate** Bioassay Required on PINGP 915, (See RPIP 1126, Contamination Monitor Alarm Response and Personnel Decontamination).

7.2.8 **Attempt** to reduce any contamination detected on an individual in accordance with RPIP 1126.

A. IF dose rates allow personnel habitability, THEN **use** Decon Showers at Access Control.

B. IF dose rates allow personnel habitability, THEN **use** old Admin Building shower facilities.

C. **Use** EOF Decon Shower at Prairie Island Training Center.

7.2.9 IF the Normal Guidelines are NOT achieved, THEN **refer** to the REC about using the Emergency Guidelines in Attachment 1.

7.2.10 IF contamination is coincident with injury, THEN **follow** procedures outlined in F4, Medical Support and Casualty Care.

7.2.11 **Decontaminate** personal clothing and shoes to Normal Guidelines.

7.2.12 IF Normal Guidelines CANNOT be obtained after reasonable efforts, THEN **dispose** of the items as contaminated waste OR the REC may **authorize** the use of Emergency Contamination Guidelines as specified in Attachment 1.

7.3 **Coordinated** decontamination for Emergency Response personnel remaining onsite, and conducting emergency work activities.

7.4 **Vehicles Monitoring and Decontamination**

NOTE:	**Vehicle monitoring and decontamination should be performed as time allows depending on evacuation urgency.**

CAUTION:	**MAJOR VEHICLE CONTAMINATION MAY POSE A RADIATION HAZARD TO PERSONNEL CONDUCTING SURVEYS AND APPROPRIATE PRECAUTIONS SHOULD BE TAKEN OR SURVEYING SUSPENDED UNTIL LATER.**

7.4.1 IF contamination is expected, THEN **survey** vehicles prior to departing from the Assembly Area.

7.4.2 **Survey** each vehicle and **document** on PINGP 985.

A. **See** Attachment 1 for Guidelines.

B. **Survey** exterior and interior surfaces for fix contamination, paying special attention to the air filter, tires, and radiators.

C. IF fuel damage is suspected, THEN **smear** areas where contamination is found with a cloth smear and **save** for alpha counting.

D. **Smear** exterior of the Vehicle using two (2) masslins each covering 5 sq. ft. from, hood, roof, trunk or pick-up bed.

E. IF smears are ≥ 100 CCPM, THEN **log** the vehicle as contaminated.

7.4.3 **Initiate** PINGP 986, Vehicle Survey Form, for vehicles found contaminated (See **Error! Reference source not found.**).

7.4.4 **Tape** the PINGP 986 to the inside of the windshield with any saved smears.

7.4.5 **Hold** Contaminated vehicles in a designated area for later decontamination.

7.4.6 IF major vehicle contamination exists, THEN **evacuate** personnel as quickly as possible using vehicles that meet the Guidelines of Attachment 1. Outside assistance may be requested as necessary.

7.5 Upon termination of emergency condition, **survey** the exterior and interior surfaces of the vehicles. Paying special attention to the air filter, tires, radiators, etc. Contamination levels **SHALL** be returned to the Normal Guidelines, using approved decontamination procedures as outlined in F2, Radiation Safety, and D-13, Decontamination.

F	PERSONNEL AND EQUIPMENT MONITORING AND DECONTAMINATION	NUMBER: F3-19
		REV: 7

Attachment 1 Contamination Limits

CONTAMINATION LIMITS		
	NORMAL GUIDELINES	EMERGENCY GUIDELINES
REMOVABLE, LOOSE SURFACE DPM/100 cm^2 $B\gamma$ α	 100 DPM/100 cm^2 10 DPM/100 cm^2	 5000 DPM/100 cm^2 500 DPM/100 cm^2
FIXED	100 CPM	500 CPM

Based on Manual of Protective Action Guides and Protective Actions for Nuclear Accidents, EPA 400-R-92-001, May 1992, Table 7-7. Frisker response: 1mR/hr ≈ 5000 CPM Cs 137.

1. Guidelines are based on using pancake probe.

2. $B\gamma$ Portable survey instruments are located in all Emergency Centers and at both Assembly Points.

3. α Portable survey instrument is located in the Hotcell Emergency locker.

F3	RADIATION MONITOR DATA ON ERCS	NUMBER: F3-26.2
		REV: 7

REFERENCE USE
• *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.*

P.C. REVIEW DATE:	OWNER:	EFFECTIVE DATE
7-23-02 SC	M. Werner	7-26-02

F3	RADIATION MONITOR DATA ON ERCS	NUMBER: F3-26.2
		REV: 7

1.0 PURPOSE

The purpose of this procedure is to describe the steps necessary to retrieve instantaneous Radiation Monitoring Data from the Emergency Response Computer System (ERCS).

2.0 APPLICABILITY

This Instruction **SHALL** apply to Engineering Support in TSC & EOF and to the Radiological Emergency Coordinator (REC) & Radiation Protection Support Supervisor (RPSS).

3.0 PRECAUTIONS

Contact the Prairie Island ERCS Computer Section if problems arise in operation of the ERCS Computer or Printer.

4.0 RESPONSIBILITIES

4.1 Engineering Support has the responsibility to operate ERCS in accordance with this procedure to obtain pre-selected Radiation Monitor Data as requested by REC or RPSS.

4.2 The REC or RPSS has responsibility to request particular Radiation Monitor Data from Engineering Support as necessary.

5.0 PREREQUISITES

Plant staff has declared an Alert, or higher, emergency classification and has activated the Emergency Response Organization.

F3	RADIATION MONITOR DATA ON ERCS	NUMBER: F3-26.2
		REV: 7

6.0 PROCEDURE

6.1 Accessing RADMON or STM-RAD group displays.

NOTE:	**"RADMON" group display provides a list of current radiation monitor readings. "STM-RAD" group display provides a list of current steam release parameter readings.**

6.1.1 At the TOC (Turn On Code), enter "GRPDIS RADMON" or "GRPDIS STM-RAD" to gain access to the RADMON group or STM-RAD group parameters, respectively.

6.1.2 The display will respond with a list of selected parameters and their current values. Also, the prompt "Enter Update Rate in SEC (5-1800):" will be at top of the display. Enter desired frequency of parameter reading update (30 sec or more) and depress the <RETURN> key.

6.1.3 The list of parameters may be printed using the terminal's local color printer. To print, press the <F12> key and wait several seconds.

6.1.4 To trend the selected points, depress the <F2> "TREND" key.

A. Depress the up or down arrow key until the desired parameter points are displayed on the terminal screen.

B. Enter desired update rate (30 sec. or more).

6.1.5 Cancel the Group Display function by depressing the <ESC> key.

6.2 Terminating or Resetting the ERCS Steam Release Calculations

NOTE:	When entering Point ID's, enter a 1 for Unit 1 or 2 for Unit 2, in place of the * preceding the Point ID number.

NOTE:	ERCS starts totalizing the radiation released after a reactor trip AND if the control rod bank "B" step count >20 before the trip AND R51/52 rad monitors > ERCS main steam background radiation (Point IDs *R0051B & *R0052B). Possible steam flow paths are: Safety Relief Valves, PORVs, Steam Dump Valves and Turbine Driven Aux. Feedwater Pump.

6.2.1 The values of Point ID *KSRM may be used to control the radioactive steam release calculations as follows:

A. *KSRM set to 0 = Normal program operation (computation is enabled).

B. *KSRM set to 1 = Computation is inhibited, but accumulated release values are not altered.

C. *KSRM set to 2 = Computation is inhibited and accumulated release values are set to zero.

6.2.2 If steam release calculations need to be disabled or enabled, request an ERCS Engineer perform the change to *KSRM using TOC "SUB" to substitute the appropriate value (0, 1 or 2).

6.2.3 Alternately, you can use the turn-on-code "STM-RAD" to monitor the steam release computation and to inhibit, enable, and reset the calculations. This function is available from any ERCS terminal and can be performed by anyone. The function keys (F1 and F2) are used to allow the operator to inhibit, enable and reset.

7.0 LIST OF TABLES AND ATTACHMENTS

7.1 Table 1 - Unit 1 Rad Monitors

7.2 Table 2 - Unit 2 Rad Monitors

7.3 Table 3 - Unit 1 Steam Release Rad Parameters

7.4 Table 4 - Unit 2 Steam Release Rad Parameters

Table 1 Unit 1 Rad Monitors

UNIT 1 RADIATION MONITORS

POINT ID	DESCRIPTION
1R0001A	CONTROL ROOM AREA R
1R0002A	1 CNTM VSL AREA R
1R0004A	11/12/13 CHARG PMP AREA R
1R0007A	IN-CORE SEAL TABLE AREA R
1R0009A	RC LETDN LINE R UNIT 1
1R0011A	1 CNTM/SHLD BLDG VENT AIR PART
1R0012A	1 CNTM/SHLD BLDG VENT GAS R
1R0015A	CDSR AIR EJCTR GAS RADIOACTIVITY
1R0019A	STM GEN BD LIQUID RADIOACTIVITY
1R0021A	CIRC WTR DISCH R
1R0022A	SHIELD BLDG VENT GAS R
2R0022A	2 SHIELD BLDG VENT GAS R
1R0025A	SPENT FUEL POOL AIR R-MONITOR
1R0026A	11/21 RHR CUBICLE AIR R
1R0027A	12/22 RHR CUBICLE AIR R
1R0030A	AUX BLDG VENT GAS R MONITOR B
1R0031A	SPENT FUEL POOL AIR R MONITOR B
1R0037A	UNIT 1 AUX BLDG VENT GAS R
1R0039A	UNIT 1 COMP COOLING LIQUID R
1R0048A	1 HIGH RANGE CNTM AREA MONITOR B
1R0049A	1 HIGH RANGE CNTM AREA MONITOR A
1R0050A	SHIELD BLDG STACK RAD HIGH RNG
1R0051A	A STM LINE RAD LVL
1R0051U1	STEAM RAD RELEASE RATE 33
1R0052A	B STM LINE RAD LVL
1R0053A	SI PUMP AREA RAD LVL

Table 1 Unit 1 Rad Monitors

UNIT 1 RADIATION MONITORS

1R0054A	CS PUMP AREA RAD LVL
1R0055A	AUX BLDG 695 EAST AREA RAD LVL
1R0056A	AUX BLDG 695 WEST AREA RAD LVL
1R0057A	AUX BLDG 715 EAST AREA RAD LVL
1R0058A	AUX BLDG 715 WEST REA RAD LVL
1R0059A	AUX BLDG 715 PENET/LTDN AREA RAD
1R0060A	AUX BLDG 735 NORTH AREA RAD LVL
1R0061A	A STM LINE AREA RAD LVL
1R0062A	AUX BLDG 755 EAST AREA RAD LVL
1R0063A	AUX BLDG 755 WEST AREA RAD LVL
1R0064A	TURB BLDG 735 NORTH AREA RAD LVL
1R0065A	OPER SUPPORT CENTER RAD LVL
1R0066A	D1 DSL GEN ROOM RAD LVL
2R0067A	INSTR AND CONT SHOP RAD LVL
2R0068A	TECH SUPPORT CENTER RAD LVL
2R0069A	GUARDHOUSE RAD LVL
1R0070A	RCS HOT LEG LOOP A AREA RAD LVL
1R0071A	RCS HOT LEG LOOP A AREA RAD LVL

Table 2 Unit 2 Rad Monitors

UNIT 2 RADIATION MONITORS

POINT ID	DESCRIPTION
2R0002A	2 CNTM VSL AREA R
2R0007A	IN-CORE SEAL TABLE AREA R
2R0011A	2 CNTM/SHLD BLDG VENT AIR PART
2R0012A	2 CNTM/SHLD BLDG VENT GAS R
2R0015A	CDSR AIR EJCTR GAS RADIOACTIVITY
2R0019A	STM GEN BD LIQUID RADIOACTIVITY
1R0022A	1 SHIELD BLDG VENT GAS R
2R0022A	2 SHIELD BLDG VENT GAS R
1R0025A	SPENT FUEL POOL AIR R-MONITOR
1R0031A	SPENT FUEL POOL AIR R-MONITOR B
2R0048A	2 HIGH RANGE CNTM AREA MONITOR A
2R0049A	2 HIGH RANGE CNTM AREA MONITOR B
2R0050A	SHIELD BLDG STACK RAD HIGH RNG
2R0051A	A STM LINE RAD LVL
2R0051U1	STEAM RELEASE RATE
2R0052A	B STM LINE RAD LVL
2R0053A	SI PUMP AREA RAD LVL
2R0054A	CS PUMP AREA RAD LVL
2R0055A	AUX BLDG 695 WEST AREA RAD LVL
2R0056A	AUX BLDG 695 EAST AREA RAD LVL
2R0057A	AUX BLDG 715 WEST AREA RAD LVL
2R0058A	AUX BLDG 715 EAST AREA RAD LVL
2R0059A	AUX BLDG 715 PENE/LTDN AREA RAD
2R0060A	AUX BLDG 735 NORTH AREA RAD LVL
2R0061A	A STM LINE AREA RAD LVL
2R0062A	AUX BLDG 755 WEST AREA RAD LVL
2R0063A	AUX BLDG 755 EAST AREA RAD LVL
2R0064A	TURB BLDG 735 NORTH AREA RAD LVL
1R0065A	OSC RAD LEVEL
1R0066A	D1 DSL GEN ROOM RAD LVL
2R0067A	INSTR AND CONT SHOP RAD LVL
2R0068A	TECH SUPPORT CENTER RAD LVL
2R0069A	GUARDHOUSE RAD LVL
2R0070A	RCS HOT LEG LOOP A AREA RAD LVL
2R0071A	RCS HOT LEG LOOP B AREA RAD LVL
2R0072A	D6 CABLE SPREADING RM RAD LVL

Table 2 Unit 2 Rad Monitors

UNIT 2 RADIATION MONITORS

POINT ID	DESCRIPTION
2R0073A	D6 BUS 26 SWGR RM RAD LVL
2R0074A	D6 BU 221& 222 SWGR RM RAD LVL
1R0001A	CONTROL ROOM AREA R
2R0009A	RC LETDN LINE R-UNIT 2
1R0026A	11/21 RHR CUBICLE AIR R
1R0027A	12/22 RHR CUBICLE AIR R
2R0030A	2 AUX BLDG VENT GAS R-MONITOR B
2R0037A	UNIT 2 AUX BLDG VENT GAS R
2R0039A	UNIT 2 COMP COOLING LIQUID R

Table 3 Unit 1 Steam Release Rad Parameters

POINT ID	DESCRIPTION
1R0051A	STEAM LINE RAD MONITOR A
1R0052A	STEAM LINE RAD MONITOR B
1R0051B	STEAM LINE RAD MONITOR A - BACKGROUND
1R0052B	STEAM LINE RAD MONITOR B - BACKGROUND
1R0051U	RELEASE Curie
1R0051U1	STM RAD RELEASE RATE µC/SEC
1Y1501D	SAFETY VALVE 1 TRAIN A
1Y1502D	SAFETY VALVE 2 TRAIN A
1Y1503D	SAFETY VALVE 3 TRAIN A
1Y1504D	SAFETY VALVE 4 TRAIN A
1Y1505D	SAFETY VALVE 5 TRAIN A
1Y1521D	SAFETY VALVE 1 TRAIN B
1Y1522D	SAFETY VALVE 2 TRAIN B
1Y1523D	SAFETY VALVE 3 TRAIN B
1Y1524D	SAFETY VALVE 4 TRAIN B
1Y1525D	SAFETY VALVE 5 TRAIN B
1Y1533D	CROSS OVER VALVE A (1 = OPEN)
1Y1534D	CROSS OVER VALVE B (1 = OPEN)
1Y1535D	AUX FEEDWATER PUMP VALVE (1 = OPEN)
1Y2168D	MSIV TRAIN A (1 = CLOSED)
1Y2936D	MSIV TRAIN B (1 = CLOSED)
1U5036A	STEAM LINE A PRESSURE - PSIA
1U5038A	STEAM LINE B PRESSURE - PSIA
1Y1530A	STEAM DUMP VALVE A-1
1Y1531A	STEAM DUMP VALVE A-2
1Y1532A	STEAM DUMP VALVE B-1
1Y1533A	STEAM DUMP VALVE B-2
1Y1536A	PORV A POSITION
1Y1538A	PORV B POSITION
1L0409A	SG WR LEVEL LOOP A
1L0429A	SG WR LEVEL LOOP B
1Y1500A	POST TRIP STM RELEASE
1U5202D	REACTOR TRIP (1 = YES)
1U0050A	ROD BANK B STEPS
1KSRM	STM RELEASE RAD ENABLE (0=ENABLE)
2R0051U	STM RAD RELEASE
2R0051U1	STM RAD RELEASE RATE

Table 4 Unit 2 Steam Release Rad Parameters

POINT ID	DESCRIPTION
2R0051A	STEAM LINE RAD MONITOR A
2R0052A	STEAM LINE RAD MONITOR B
2R0051B	STEAM LINE RAD MONITOR A - BACKGROUND
2R0052B	STEAM LINE RAD MONITOR B - BACKGROUND
2R0051U	RELEASE Curie
2R0051U1	RELEASE RATE µC/SEC
2Y1501D	SAFETY VALVE 1 TRAIN A
2Y1502D	SAFETY VALVE 2 TRAIN A
2Y1503D	SAFETY VALVE 3 TRAIN A
2Y1504D	SAFETY VALVE 4 TRAIN A
2Y1505D	SAFETY VALVE 5 TRAIN A
2Y1521D	SAFETY VALVE 1 TRAIN B
2Y1522D	SAFETY VALVE 2 TRAIN B
2Y1523D	SAFETY VALVE 3 TRAIN B
2Y1524D	SAFETY VALVE 4 TRAIN B
2Y1525D	SAFETY VALVE 5 TRAIN B
2Y1533D	CROSS OVER VALVE A (1 = OPEN)
2Y1534D	CROSS OVER VALVE B (1 = OPEN)
2Y1535D	AUX FEEDWATER PUMP VALVE (1 = OPEN)
2Y2168D	MSIV TRAIN A (1 = CLOSED)
2Y2936D	MSIV TRAIN B (1 = CLOSED)
2U5036A	STEAM LINE A PRESSURE - PSIA
2U5038A	STEAM LINE B PRESSURE - PSIA
2Y1530A	STEAM DUMP VALVE A-1
2Y1531A	STEAM DUMP VALVE A-2
2Y1532A	STEAM DUMP VALVE B-1
2Y1533A	STEAM DUMP VALVE B-2
2Y1536A	PORV A POSITION
2Y1538A	PORV B POSITION
2L0409A	SG WR LEVEL LOOP A
2Y1500A	POST TRIP STM RELEASE
2L0429A	SG WR LEVEL LOOP B
2U5202D	REACTOR TRIP (1 = YES)
2U0050A	ROD BANK B STEPS
2KSRM	STM RELEASE ENABLE (0=ENABLE)