



Entergy Operations, Inc.
P.O. Box 756
Port Gibson, MS 39150
Tel 601 437 2800

September 20, 2001

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Subject: Changes to Emergency Plan Implementing Procedures – September 20, 2001
Grand Gulf Nuclear Station
Docket No. 50-416
License No. NPF-29

GNRO-2001/00074

Ladies & Gentlemen:

Entergy Operations, Inc. submits in accordance with 10CFR50 Appendix E, Section V changes to the following Emergency Plan Implementing Procedure:

10-S-01-20 Rev. 11
10-S-01-29 Rev. 17

This letter does not contain any commitments.

Yours truly,

A handwritten signature in black ink, appearing to be a stylized "C" followed by a horizontal line.

CAB/MJL

attachment: 1. Procedure 10-S-01-20
2. Procedure 10-S-01-29

cc: (See Next Page)

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cc:

Hoeg	T. L.	(GGNS Senior Resident)	(w/a)
Levanway	D. E.	(Wise Carter)	(w/a)
Reynolds	N. S.		(w/a)
Smith	L. J.	(Wise Carter)	(w/a)
Thomas	H. L.		(w/o)

Mr. E. W. Merschoff (w/2) Regional Administrator U.S. Nuclear Regulatory Commission Region IV 611 Ryan Plaza Drive, Suite 400 Arlington, TX 76011	ALL LETTERS
Mr. S. P. Sekerak, NRR/DLPM/PD IV-1 (w/2) ATTN: ADDRESSEE ONLY U.S. Nuclear Regulatory Commission One White Flint North, Mail Stop O7-D1 11555 Rockville Pike Rockville, MD 20852-2378	ALL LETTERS

PLANT OPERATIONS MANUAL

Volume 10
Section 01

10-S-01-20
Revision: 11
Date: 9/13/01

EMERGENCY PLAN PROCEDURE

ADMINISTRATION OF THYROID BLOCKING AGENTS

SAFETY RELATED

Prepared: Richard Sumrell
Reviewed: [Signature]
 Technical
Concurred: [Signature]
 Manager, Operations
PSRC: [Signature]
Approved: J. Brad Edwards for JEV / [Signature]
 Plant General Manager Manager, Emergency Preparedness

List of Effective Pages:

Pages 1-6

Attachment I-IV

List of TCNs Incorporated:

<u>Revision</u>	<u>TCN</u>
0	None
1	1
2	None
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None
11	None

Title: Administration of Thyroid Blocking Agents	No.: 10-S-01-20	Revision: 11	Safety Evaluation
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Document Reviewed: 10-S-01-20 Rev 11

System Designator(s): NA

Check the applicable review(s):

<input checked="" type="checkbox"/>	SCREENING	Sections I, II, and III required
<input type="checkbox"/>	50.59 EVALUATION EXEMPTION	Sections I, II, III, and IV required
<input type="checkbox"/>	50.59 EVALUATION Evaluation #: _____	Sections I, II, III, and V required

NOTE: Only the sections required as indicated above must be included in the Review.

I. SIGNATURES / OVERVIEW

Preparer: Richard Sumrall Richard Sumrall / EOI / EP / 8/24/2001
Signature / Name (print) / Company / Department / Date

Reviewer: Richard VanDusen Richard VanDusen / EOI / EP / 8-29/2001
Signature / Name (print) / Company / Department / Date

(PSRC): NA
Chairman's Signature / Date (N/A for Screenings and 50.59 Evaluation Exemptions)

List of Assisting/Contributing Personnel:

Name:	Scope of Assistance:
<u>NA</u>	<u>NA</u>
_____	_____
_____	_____

Description of Proposed Change

Adds clarification to allow estimation of thyroid CDE by normal dose assessment methods such as Dosecalc or DAC hour calculations. Editorial changes. Add reference to flowchart EPP 20-02.

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II. SCREENING

A. Licensing Basis Document Review

Does the proposed activity impact the facility or a procedure as described in any of the following Licensing Basis Documents?

<i>Operating License</i>	YES	NO	N/A	<i>CHANGE # and/or SECTIONS TO BE REVISED</i>
Operating License	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
TS	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
NRC Orders	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If "YES", obtain NRC approval prior to implementing the change. (See Section 5.1.13 for exceptions.)				

<i>LBDs controlled under 50.59</i>	YES	NO	N/A	<i>CHANGE # and/or SECTIONS TO BE REVISED</i>
UFSAR	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
TS Bases	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Technical Requirements Manual	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Core Operating Limits Report	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Fire Hazard Analysis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Fire Protection Program	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Offsite Dose Calculations Manual	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Process Control Program	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
NRC Safety Evaluation Reports ¹	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
If "YES", perform an Exemption Review per Section IV <u>OR</u> perform a 50.59 Evaluation per Section V.				

<i>LBDs controlled under 72.48</i>	YES	NO	N/A	<i>CHANGE # and/or SECTIONS TO BE REVISED</i>
Cask UFSAR	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Certificate of Compliance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If "YES", evaluate/process any changes in accordance with 72.48				

<i>LBDs controlled under other regulations</i>	YES	NO	N/A	<i>CHANGE # and/or SECTIONS TO BE REVISED</i>
Quality Assurance Program Manual ²	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Emergency Plan ²	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Security Plan ^{2, 3}	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Inservice Inspection Program ⁴	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Inservice Testing Program ⁴	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If "YES", evaluate/process any changes in accordance with the appropriate regulation.				

¹ If "YES," see Section 5.1.5.

² If "YES," notify the responsible department and ensure a 50.54 Evaluation is performed.

³ The Security Plan is classified as safeguards and can only be reviewed by personnel with the appropriate security clearance. The Preparer should notify the security department of potential changes to the Security Plan.

⁴ If "YES", process the change in accordance with the 10CFR50.55a control program.

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- B. Does the proposed activity involve a test or experiment not described in the FSAR?** ☐ Yes ☒ No If "yes," perform an Exemption Review per Section IV OR perform a 50.59 Evaluation per Section V.

C. Basis

(Provide a basis for the "no" items checked in Sections II.A and II.B, above. Adequate basis must be provided within the Screening such that a third-party reviewer can reach the same conclusions. Simply stating that the change does not affect TS or the FSAR is not an acceptable basis. If a 50.59 Evaluation is required, this section may be N/A'd.)

Performed search of online TechSpecs, UFSAR, E-Plan, QAPM, SERs for the keywords KI, potassium, and thyroid. Reviewed all hits returned. Previous reviews of COLR, Fire Safety Analysis, Fire Protection Program, Inservice Inspection, and Inservice Testing indicate that Potassium Iodide is not addressed.

- D. Is the validity of this Review dependent on any other change?** (See Section 5.2.2.4 of the EOI 10CFR50.59 Program Review Guidelines) ☐ Yes ☒ No

If "Yes," list the required changes.

E. References

[Discuss the methodology for performing the LBD search. State the location of relevant licensing document information and explain the scope of the review such as electronic search criteria used (e.g., key words) or the general extent of manual searches per Section 5.2.2.4 of LI-101.]

Documents:

Online TechSpecs, UFSAR, Emergency Plan, QAPM, SERs

Keywords:

KI, potassium, thyroid

FSAR Sections Reviewed:

NA

FSAR Figures Reviewed:

NA

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III. ENVIRONMENTAL SCREENING

If any of the following questions is answered "yes," an Environmental Review must be performed in accordance with NMM Procedure EV-115, "Environmental Evaluations."

Will the proposed Change being evaluated:

Yes No

- | | | |
|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Involve a land disturbance of previously disturbed land areas in excess of one acre (i.e., grading activities, construction of buildings, excavations, reforestation, creation or removal of ponds)? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Involve a land disturbance of undisturbed land areas (i.e., grading activities, construction, excavations, reforestation, creating, or removing ponds)? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Involve dredging activities in a lake, river, pond, or stream? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Increase the amount of thermal heat being discharged to the river or lake? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Increase the concentration or quantity of chemicals being discharged to the river, lake, or air? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Discharge any chemicals new or different from that previously discharged? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Change the design or operation of the intake or discharge structures? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Modify the design or operation of the cooling tower that will change water or air flow characteristics? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Modify the design or operation of the plant that will change the path of an existing water discharge or that will result in a new water discharge? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Modify existing stationary fuel burning equipment (i.e., diesel fuel oil, butane, gasoline, propane, and kerosene)? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Involve the installation of stationary fuel burning equipment or use of portable fuel burning equipment (i.e., diesel fuel oil, butane, gasoline, propane, and kerosene)? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Involve the installation or use of equipment that will result in an air emission discharge? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Involve the installation or modification of a stationary or mobile tank? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Involve the use or storage of oils or chemicals? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Involve burial or placement of any solid wastes in the site area that may effect runoff, surface water, or groundwater? |

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EVALUATION OF EMERGENCY PREPAREDNESS PROCEDURE

Procedure Number: 10-S-01-20

Procedure Name: ADMINISTRATION OF THYROID BLOCKING AGENTS

Revision / TCN Number: Revision 11


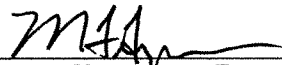
Does the procedure Revision / TCN require an Emergency Plan change?

☐ Yes ☒ NoNOTE: IF YES, THIS PROCEDURE CAN NOT BE ISSUED UNTIL THE EMERGENCY PLAN IS CHANGED /
REVISED.

Reason for 'No' response:

This procedure revision implements Section 6.7.1 of the Emergency Plan which specifies that the Emergency Director/Offsite Emergency Coordinator may authorize use of thyroid protective drugs.

Therefore this change does not represent a change to the Emergency Plan, but a change in implementation of the Emergency Plan.

Prepared:	<u></u>	<u>9/6/01</u>
		Date
Approved:	<u></u>	<u>9/11/01</u>
	Manager, Emergency Preparedness	Date

RPTS FORM

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10CFR50.59 Review Required?	(x) Yes	If Yes, attach 50.59 Review Form
	() No	Not required per LI-101

Cross-Discipline review required?	(x) Yes	(Note affected Departments Below)
	() No	
Preparer Initials>>> ILS		

Department Cross-Discipline Reviews Needed	Signoff (signed, electronic, telcon)
RPM Lead	<i>Ray A. W. Darn</i> 8/30/01
REM Lead	<i>John Smith</i> 8/30/01
RAC Lead	<i>Michael</i> 9-4-01

Does this directive contain Tech Spec Triggers? () YES (X) NO

REQUIREMENTS CROSS-REFERENCE LIST

Requirement Implemented	by Directive	Directive Paragraph Number
Name	Paragraph Number	That Implements Requirement
GGNS Emer Plan	6.7.1.S8	2.1
GGNS Emer Plan	6.7.1.S9	6.3.10
GGNS Emer Plan	6.7.1.S10	6.3.10 (NOTE)

* Covered by directive as a whole or by various paragraphs of the directive.

NOTE

The Component Database Change Request statement is applicable only to Volume 06 and 07 maintenance directives.

Component Database Change Request generated and the backup documentation available for setpoint and/or calibration data only ☐ Yes ☒ N/A CDBCR # _____

Current Revision Statement

- Rearranges numerous steps and attachments to provide more clarity. Due to the large number of rearrangements and grammatical changes, rev bars are not used.
- Allow estimation of thyroid CDE by normal dose assessment methods (Dosecalc, DAC hour calculations, etc)
- Clarify to more clearly indicate that KI may be issued at less than 25 Rem thyroid CDE.
- Adds reference to EPP 20-02 flowchart to assist in the KI administration process.
- Corrects typographical errors.

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1.0 PURPOSE

- 1.1 To provide guidance in using Potassium Iodide as a thyroid blocking agent to prevent the accumulation of radioiodines in the thyroid gland.
- 1.2 To specify the records necessary for issuing KI.

2.0 RESPONSIBILITIES

- 2.1 The Emergency Director/Offsite Emergency Coordinator - May authorize the administration of Potassium Iodide to Emergency Response Personnel in emergency situations where exposure to the thyroid is a reasonable possibility.
- 2.2 The Radiation Protection Manager/Radiation Emergency Manager - Are responsible for assessing the need for issuing KI, and should be consulted about efficiency of Potassium Iodide administration in emergency conditions.

3.0 REFERENCES

- 3.1 EPA 400, Manual of Protective Action Guides and Protective Actions For Nuclear Incidents

4.0 ATTACHMENTS

- 4.1 Attachment I - Potassium Iodide Precaution Leaflet
- 4.2 Attachment II - Potassium Iodide (KI) Administration Form
- 4.3 Attachment III - KI Issue Record
- 4.4 Attachment IV - Thyroid Committed Dose Equivalent Graph

5.0 DEFINITIONS

- 5.1 Thyroid Blocking - The introduction of stable Iodine into the body, which results in the thyroid becoming saturated with the stable Iodine.
 - 5.2 KI - Potassium Iodide
 - 5.3 Hypothyroidism - Deficient functional activity of the thyroid gland.
 - 5.4 Goiter - An enlargement of the thyroid gland resulting in a swelling of the front of the neck.
 - 5.5 Hyperthyroidism - Excessive functional activity of the thyroid gland.
 - 5.6 EOF - Emergency Operations Facility
-

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6.0 DETAILS

6.1 AUTHORIZATION CONSIDERATIONS

- 6.1.1 The use of Self-Contained Breathing Apparatus (SCBAs) is the preferred method to reduce or minimize thyroid exposure.

NOTE

SCBA use does not preclude the consideration of KI. However, external exposure is expected to limit access before exceeding 25 Rem CDE thyroid while wearing SCBA.

- 6.1.2 KI should be issued when thyroid CDE is estimated to be 25 Rem or greater, as recommended in Ref. 3.1 Section 2.
- 6.1.3 Authorization to issue KI may be initiated at less than 25 Rem CDE thyroid. The decision to issue KI may be based on such factors as known or unknown radiological conditions, unknown potential doses, incalculable doses, or expected conditions inferred from other knowledge where significant radioiodine uptake by the thyroid is or may be possible.
- 6.1.4 During an emergency situation where radioiodine uptake by the thyroid is a reasonable possibility, Potassium Iodide may be administered to Emergency Response Personnel at the discretion and upon approval of the Emergency Director/Offsite Emergency Coordinator.

6.2 ASSESSING THE NEED TO ISSUE KI

NOTE

In all cases where airborne contamination is anticipated, proper respiratory equipment is used.

KI is administered approximately one-half hour before exposure for maximum blockage.

Final uptake is halved if KI is administered within 3-4 hours after exposure.

Little benefit is realized if KI administration is delayed for 10-12 hours after exposure.

- 6.2.1 SCBA use normally eliminates the need to issue KI.
- 6.2.2 If Dosecalc is available, estimate the CDE thyroid using Dosecalc.
-

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- 6.2.3 If Dosecalc is unavailable or is desired to estimate CDE thyroid using other methods, Attachment IV is available.

NOTE

Attachment IV assumes 100% I-131 abundance which overestimates the thyroid CDE in the event other iodine isotopes are present.

- 6.2.4 Verify your calculations/measurements/estimates.
- 6.2.5 KI should be recommended when CDE thyroid is estimated to approach, equal, or exceed 25 Rem, or unknown airborne levels may be present and it is anticipated that CDE thyroid may approach 25 Rem.
- 6.2.6 Report the results to the Emergency Director/Offsite Emergency Coordinator and advise them of the recommendation to issue KI.
- 6.2.7 If unknown airborne levels are present or it is anticipated that CDE thyroid may approach 25 Rem, the Emergency Director/Offsite Emergency Coordinator may use discretion to authorize KI.

NOTE

EPP 20-02 is available to assist in the KI process.

- 6.2.8 The Emergency Director/Offsite Emergency Coordinator may approve the issuance of KI via telecom.

6.3 KI ISSUANCE REQUIREMENTS

- 6.3.1 The Emergency Director/Offsite Emergency Coordinator designates the individuals to receive KI and the individuals to administer KI.
- 6.3.2 Provide the individuals designated to receive KI with copies of:
- a. Attachment I, Potassium Iodide Precaution Leaflet
 - b. Attachment II, Potassium Iodide Administration Form
- 6.3.3 The individual to receive KI reads Attachment I, Potassium Iodide Precaution Leaflet.
-

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- 6.3.4 The individual to receive KI voluntarily elects to take KI or rejects the KI.

NOTE

The use of KI is only a recommendation. Each affected individual decides whether to consume the drug.

Allow sufficient time for all persons to read Attachment I.

After reviewing Attachment I, each individual has the right to ACCEPT or REJECT the KI tablets.

- 6.3.5 Personnel who elect to take KI complete the appropriate sections of Attachment II, Potassium Iodide Administration Form.

NOTE

The Emergency Director/Offsite Emergency Coordinator can authorize the administration of KI in the field after the team members have read Attachment I.

Completion of the KI documentation may be accomplished later at the convenience of the Emergency Director/Offsite Emergency Coordinator.

It is recommended that reading of Attachment I and documenting Attachment II be completed at the earliest opportunity to prevent delay in dispatching the response team.

- 6.3.6 To allow completing Attachment II and informing the worker, the REM/RPM make available to the personnel issuing KI the estimated CDE thyroid. If airborne levels or CDE thyroid are unknown, record unknown or similar.
- 6.3.7 Assemble the individuals designated to receive KI and the individuals to administer the KI.

NOTE

Ensure personnel have read Attachment I.

Verify that each individual receiving KI has completed and signed Attachment II, Potassium Iodide (KI) Administration Form.

- 6.3.8 Verify that the "YES" block is not checked on the iodide sensitivity question in Attachment II, Potassium Iodide (KI) Administration Form.
-

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- 6.3.9 Individuals who have answered "YES" on the iodide sensitivity question in Attachment II are initially considered to be iodine sensitive and are treated as follows:
- The individual does not receive KI and continues to perform their assigned emergency response function, or
 - The individuals receives KI with the RPM/REM authorization (after evaluation of the "YES" answer and the Emergency Director/Offsite Emergency Coordinator's concurrence), or
 - The individuals are relocated or replaced to eliminate or minimize the uptake of radioiodine in the thyroid gland.

NOTE

Iodine sensitivity is not to be considered to prevent the individual from completing their assigned emergency response role.

- 6.3.10 For each individual designated to receive KI, issue one (1) 130 mg KI tablet.

NOTE

KI is stored in the following locations:

- Control Room
- Technical Support Center
- Operations Support Center
- HP Lab at 93' Elevation Control Building
- Emergency Operations Facility
- Offsite Monitoring Kits

- 6.3.11 The individuals designated to administer KI complete Attachment III, KI Issue Record.
- 6.3.12 Once KI is administered and the Iodine concentration is verified or the calculated dose determined, the tablets are recommended to be issued for a minimum of six (6) to a maximum of ten (10) consecutive days. One tablet is issued each day.
- 6.3.13 Forward all completed paperwork to the RPM/REM.
- 6.3.14 Individuals listed on Attachment III, KI Issue Record, should have a whole body count and/or bioassay analysis at the earliest opportunity.
- 6.3.15 Where possible, whole body counts and/or bioassay analysis should be given on a regular basis throughout the KI Issue period to verify the effectiveness of the KI and to estimate dose commitment.
-

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6.4 FINAL CONDITIONS

- 6.4.1 Each individual whose estimated exposure to radioiodine approaches or exceeded 25 Rem has been identified and administered KI, as appropriate.
 - 6.4.2 All necessary forms are completed and reviewed by the RPM/REM and the Emergency Director/Offsite Emergency Coordinator for post event assessments and records.
 - 6.4.3 Each individual who was exposed has been scheduled for bioassay analysis.
-

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Potassium Iodide Precaution Leaflet

TABLETS (POTASSIUM IODIDE TABLETS, USP)

(pronounced po-TASS-e-um EYE-oh-dyed)
(abbreviated: KI)

TAKING POTASSIUM IODIDE IS STRICTLY VOLUNTARY AND YOU MAY ACCEPT OR REJECT THE POTASSIUM IODIDE. TAKE POTASSIUM IODIDE ONLY WHEN APPROVED. 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 OFFERED 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 in the event of a radiation emergency.

DOSE

Tablets: ADULTS AND CHILDREN 1 YEAR OF AGE OF OLDER:
One (1) tablet once a day. Crush for small children.
BABIES UNDER 1 YEAR OF AGE: One-half (1/2) tablet
once a day. Crush first.

Take for 10 days unless directed otherwise by the Emergency Director or Offsite Emergency Coordinator.

Store at controlled room temperature between 15° and 30°C (59° to 86°F). Keep container tightly closed and protect from light.

WARNING

Potassium iodide should not be used by people allergic to iodide. Some questions to consider to help determine if you are sensitive to iodide:

1. Have you any known iodine allergies?
2. When eating seafood or shellfish, do you suffer from symptoms of stomach or bowel upset, or skin eruption?
3. Has any physician told you that you have sensitivity to iodine?
4. Have you ever had a gallbladder dye test, kidney x-ray requiring dye injection, or thyroid isotope scan and did you experience any reaction?

Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician.

DESCRIPTION

Each table contains 130 mg of potassium iodide. Other ingredients: magnesium stearate, microcrystalline cellulose, silica gel, sodium thiosulfate

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.

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 anti-thyroid drug). Pregnant and nursing women may also take this drug.

HOW AND WHEN TO TAKE POTASSIUM IODIDE

Potassium iodide should be taken as soon as possible after authorization. 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 ten 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 and 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

TABLETS (Potassium Iodide Tablets, USP) bottles or package of 14 tablets. Each white, round, scored tablet contains 130 mg potassium iodide.

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Potassium Iodide (KI) Administration Form

Name: _____ / _____ / _____ Social Security Number: _____
Last First Middle

Badge Number: _____ Company: _____ Dept.: _____

Duration of Exposure (minutes): _____

Date of Exposure: _____

I-131 Concentration ($\mu\text{Ci/cc}$ in air): _____

Respiratory Protection Worn During Exposure (Check One):	<input type="checkbox"/> None (No P.F.)
	<input type="checkbox"/> GMRI (PF-50)
	<input type="checkbox"/> SCBA (PF-10,000)
Estimated Thyroid Dose Commitment: (Check One)	<input type="checkbox"/> < 25 Rem
	<input type="checkbox"/> \geq 25 Rem

CAUTION

If the next question is checked YES, do not administer KI unless approved by ED/OEC as outlined in Section 6.3.9.

Known Iodide Allergy/Previous Allergic Reaction:	<input type="checkbox"/> Yes
(Check One. If YES, explain in notes below)	<input type="checkbox"/> No

I verify that I have read and understand the precaution leaflet and I understand that taking thyroid blocking agent (KI) is strictly voluntary and that: (Check One)

- ☐ I choose to take KI.
☐ I do not choose to take KI.

Print Name

Signature of Exposed Individual

Date

Approved: _____

Emergency Director/Offsite Emergency Coordinator

Date:

☐ Check if approval per telecom

Notes:

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Attachment III	Page 1 of 2

KI ISSUE RECORDInstructions for Use:

1. Print the name and social security number of the individual(s) to whom KI is being administered in the blocks of the left-hand side of the form.
 2. The individual assigned to administer KI dates, initials, and writes their badge number under the column corresponding to the day of issuance (for example: use column 1 for the initial issue; column 2 on the second day; etc.).
 3. Forward completed Attachment to the RPM/REM.
-

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KI ISSUE RECORD

[illegible]

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THYROID COMMITTED DOSE EQUIVALENT GRAPH

Instructions for Use:

1. Determine the estimated or actual I-131 airborne concentration in the area(s) of interest.
2. Divide the estimated or actual I-131 airborne concentration by the protection factor of the equipment used (if unknown, use 1). Locate this number on the horizontal axis.
3. Locate the duration of exposure in minutes on the Vertical Axis. Find the point at which this value intersects with the number from step 2.
4. If this point of intersection is located to the left (below) the line, the thyroid CDE is less than 25 Rem.
5. If this point of intersection is located at the right (above) the line, the thyroid CDE is greater than 25 Rem.
6. If this point of intersection is located on the line, the thyroid CDE is 25 Rem.

The chart on the next page is based on the following table.

$CDE = \text{Concentration (uCi/cc)} \times \text{time (hrs)} \times DCF (\text{Rem per uCi} \cdot \text{cm}^{-3} \cdot \text{hr})$

$\text{Time} = CDE / (\text{Concentration} \times DCF)$

I-131 DCF from EPA-400 Table 5-2 ($1.3E6$ Rem per $\text{uCi} \cdot \text{cm}^{-3} \cdot \text{hr}$)

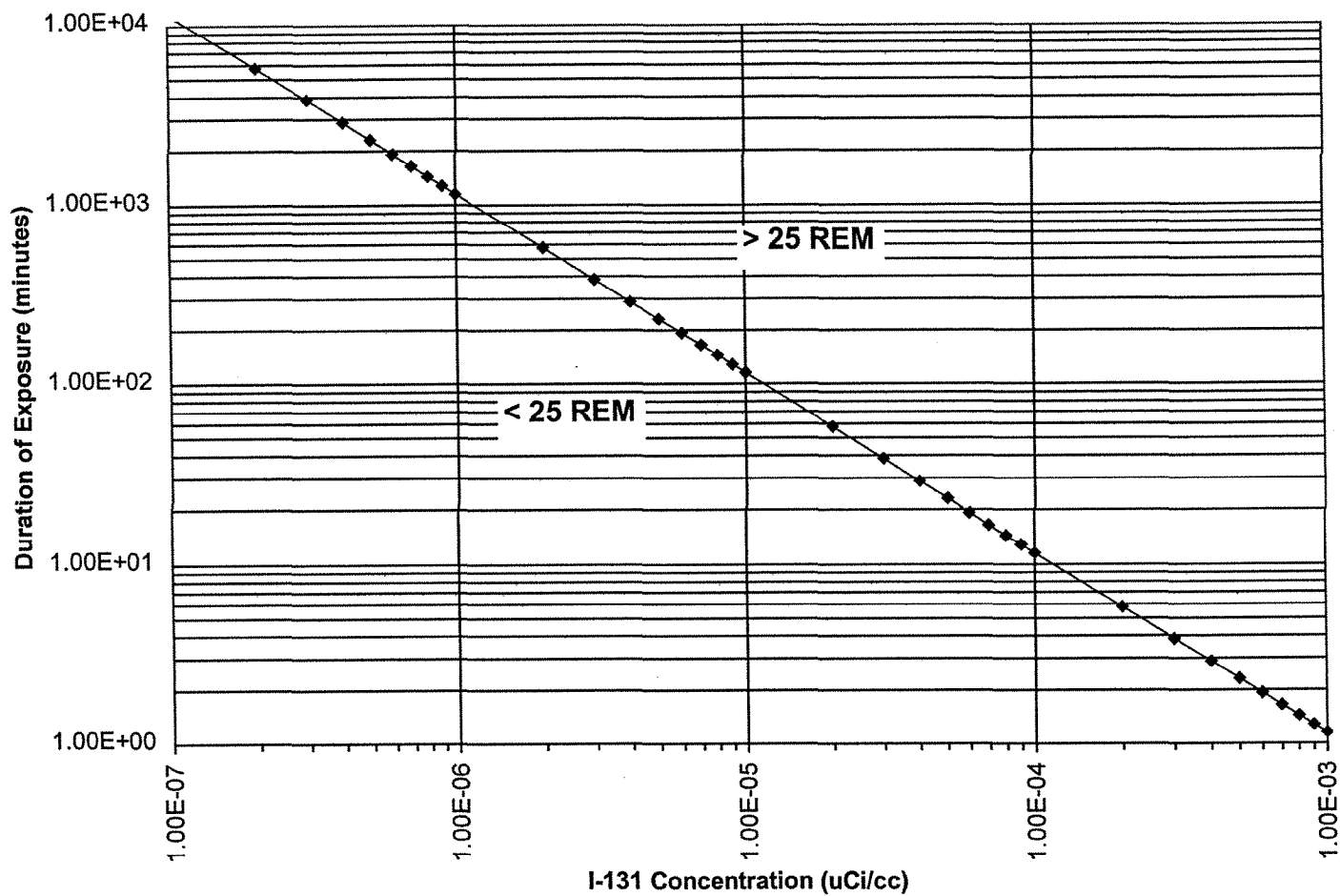
I-131 Concentration (uCi/cc)	Hours to equal 25 Rem CDE	Minutes to equal 25 Rem CDE	I-131 Concentration (uCi/cc)	Hours to equal 25 Rem CDE	Minutes to equal 25 Rem CDE
1.00E-08	1923.08	1.15E+05	6.00E-06	3.21	1.92E+02
2.00E-08	961.54	5.77E+04	7.00E-06	2.75	1.65E+02
3.00E-08	641.03	3.85E+04	8.00E-06	2.40	1.44E+02
4.00E-08	480.77	2.88E+04	9.00E-06	2.14	1.28E+02
5.00E-08	384.62	2.31E+04	1.00E-05	1.92	1.15E+02
6.00E-08	320.51	1.92E+04	2.00E-05	0.962	5.77E+01
7.00E-08	274.73	1.65E+04	3.00E-05	0.641	3.85E+01
8.00E-08	240.38	1.44E+04	4.00E-05	0.481	2.88E+01
9.00E-08	213.68	1.28E+04	5.00E-05	0.385	2.31E+01
1.00E-07	192.31	1.15E+04	6.00E-05	0.321	1.92E+01
2.00E-07	96.15	5.77E+03	7.00E-05	0.275	1.65E+01
3.00E-07	64.10	3.85E+03	8.00E-05	0.240	1.44E+01
4.00E-07	48.08	2.88E+03	9.00E-05	0.214	1.28E+01
5.00E-07	38.46	2.31E+03	1.00E-04	0.192	1.15E+01
6.00E-07	32.05	1.92E+03	2.00E-04	0.096	5.77E+00
7.00E-07	27.47	1.65E+03	3.00E-04	0.064	3.85E+00
8.00E-07	24.04	1.44E+03	4.00E-04	0.048	2.88E+00
9.00E-07	21.37	1.28E+03	5.00E-04	0.038	2.31E+00
1.00E-06	19.23	1.15E+03	6.00E-04	0.032	1.92E+00
2.00E-06	9.62	5.77E+02	7.00E-04	0.027	1.65E+00
3.00E-06	6.41	3.85E+02	8.00E-04	0.024	1.44E+00
4.00E-06	4.81	2.88E+02	9.00E-04	0.021	1.28E+00
5.00E-06	3.85	2.31E+02	1.00E-03	0.019	1.15E+00

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Attachment IV

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THYROID COMMITTED DOSE EQUIVALENT GRAPH

PLANT OPERATIONS MANUAL

Volume 10

10-S-01-29

Section 01

Revision: 17

Date: 9/13/01

EMERGENCY PLAN PROCEDURE

OPERATIONS SUPPORT CENTER (OSC) OPERATIONS

SAFETY RELATED

Prepared:

Richard Sumrell

Reviewed:

[Signature]
Technical

Concurred:

[Signature]
Manager, Operations

PSRC:

[Signature]

Approved:

J. Brad Edwards for JEV / *M. [Signature]*
Plant General Manager Manager, Emergency Preparedness

List of Effective Pages:

Pages 1-15

Attachments I-II

List of TCNs Incorporated:

<u>Revision</u>	<u>TCN</u>
0-3	None
4	1
5	2
6	3
7	None
8	4
9	None
10	5
11	None
12	None
13	None
14	None
15	None
16	None
17	None

Title: Operations Support Center (OSC) Operations	No.: 10-S-01-29	Revision: 17	Safety Evaluation
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Facility: GRAND GULFDocument Reviewed: 10-S-01-29 Rev. 17 Operations Support Center (OSC) OperationSystem Designator(s): NA

Check the applicable review(s):

<input checked="" type="checkbox"/>	SCREENING	Sections I, II, and III required
<input type="checkbox"/>	50.59 EVALUATION EXEMPTION	Sections I, II, III, and IV required
<input type="checkbox"/>	50.59 EVALUATION Evaluation #: _____	Sections I, II, III, and V required

NOTE: Only the sections required as indicated above must be included in the Review.**I. SIGNATURES / OVERVIEW**Preparer: Richard Sumrall Richard Sumrall/EOI/EP/ 8/30/2001
Signature / Name (print) / Company / Department / DateReviewer: Richard VanDenAKker Richard VanDenAKker/EOI/EP/ 8-30-01
Signature / Name (print) / Company / Department / Date(PSRC): NA
Chairman's Signature / Date (N/A for Screenings and 50.59 Evaluation Exemptions)

List of Assisting/Contributing Personnel:

Name: NA Scope of Assistance: NA**Description of Proposed Change**

Adds Attachment II, BOSC Setup Instructions. Grammatical changes. Adds ACCOUNTABILITY to Section 6.3.4, conditions for using accountability card reader. Adds 6.4.1 NOTE concerning use of the buddy system for teams to promote efficient use of personnel. Clarifies use and control of the Control Room Team. Adds 6.4.2 NOTE to direct Control Room HP to use EPP 29-03 Response Team brief sheet and maintain communications with OSC HP Coordinator. Removes EAD reader from OSC setup drawing. Allows setup of OSC similar to drawing. Corrects placement of No Entry/Exit signs on drawing. Moves responsibility of designating personnel to carry equipment to BOSC from HP Coordinator to OSC Coordinator

Title: Operations Support
Center (OSC) Operations

No.: 10-S-01-29

Revision: 17

Safety
Evaluation

II. SCREENING

A. Licensing Basis Document Review

Does the proposed activity impact the facility or a procedure as described in any of the following Licensing Basis Documents?

<i>Operating License</i>	YES	NO	N/A	<i>CHANGE # and/or SECTIONS TO BE REVISED</i>
Operating License	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
TS	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
NRC Orders	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If "YES", obtain NRC approval prior to implementing the change. (See Section 5.1.13 for exceptions.)				

<i>LBDs controlled under 50.59</i>	YES	NO	N/A	<i>CHANGE # and/or SECTIONS TO BE REVISED</i>
UFSAR	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
TS Bases	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Technical Requirements Manual	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Core Operating Limits Report	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Fire Hazard Analysis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Fire Protection Program	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Offsite Dose Calculations Manual	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Process Control Program	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
NRC Safety Evaluation Reports ¹	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
If "YES", perform an Exemption Review per Section IV <u>OR</u> perform a 50.59 Evaluation per Section V.				

<i>LBDs controlled under 72.48</i>	YES	NO	N/A	<i>CHANGE # and/or SECTIONS TO BE REVISED</i>
Cask UFSAR	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Certificate of Compliance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If "YES", evaluate/process any changes in accordance with 72.48				

<i>LBDs controlled under other regulations</i>	YES	NO	N/A	<i>CHANGE # and/or SECTIONS TO BE REVISED</i>
Quality Assurance Program Manual ²	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Emergency Plan ²	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Security Plan ^{2, 3}	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Inservice Inspection Program ⁴	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Inservice Testing Program ⁴	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If "YES", evaluate/process any changes in accordance with the appropriate regulation.				

¹ If "YES," see Section 5.1.5.

² If "YES," notify the responsible department and ensure a 50.54 Evaluation is performed.

³ The Security Plan is classified as safeguards and can only be reviewed by personnel with the appropriate security clearance. The Preparer should notify the security department of potential changes to the Security Plan.

⁴ If "YES", process the change in accordance with the 10CFR50.55a control program.

Title: Operations Support Center (OSC) Operations	No.: 10-S-01-29	Revision: 17	Safety Evaluation
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- B. Does the proposed activity involve a test or experiment not described in the FSAR? ☐ Yes ☒ No If "yes," perform an Exemption Review per Section IV OR perform a 50.59 Evaluation per Section V.

C. Basis

(Provide a basis for the "no" items checked in Sections II.A and II.B, above. Adequate basis must be provided within the Screening such that a third-party reviewer can reach the same conclusions. Simply stating that the change does not affect TS or the FSAR is not an acceptable basis. If a 50.59 Evaluation is required, this section may be N/A'd.)

Performed a search of the on-line TechSpecs, UFSAR, SERS, Emergency Plan, and QAPM using the keywords Operations Support Center, OSC, BOSC, backup emergency, team, buddy system, two person, single person, EAD, and electronic alarming dosimeter. Reviewed all hits returned by these searches. Previous reviews of the COLR, Inservice Testing Program, Inservice Inspection Program, Fire Hazard Analysis, Fire Protection Program indicate that Emergency Response requirements do not impact these programs.

- D. Is the validity of this Review dependent on any other change? (See Section 5.2.2.4 of the EOI 10CFR50.59 Program Review Guidelines) ☐ Yes ☒ No

If "Yes," list the required changes.

E. References

[Discuss the methodology for performing the LBD search. State the location of relevant licensing document information and explain the scope of the review such as electronic search criteria used (e.g., key words) or the general extent of manual searches per Section 5.2.2.4 of LI-101.]

Documents:

online TechSpecs, UFSAR, SERS, Emergency Plan, and QAPM ,

Keywords:

Operations Support Center, OSC, BOSC, backup emergency, team, buddy system, two person, single person, EAD, and electronic alarming dosimeter

FSAR Sections Reviewed:

NA

FSAR Figures Reviewed:

NA

Title: Operations Support Center (OSC) Operations	No.: 10-S-01-29	Revision: 17	Safety Evaluation
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III. ENVIRONMENTAL SCREENING

If any of the following questions is answered "yes," an Environmental Review must be performed in accordance with NMM Procedure EV-115, "Environmental Evaluations."

Will the proposed Change being evaluated:

Yes No

- ☐ ☒ Involve a land disturbance of previously disturbed land areas in excess of one acre (i.e., grading activities, construction of buildings, excavations, reforestation, creation or removal of ponds)?
- ☐ ☒ Involve a land disturbance of undisturbed land areas (i.e., grading activities, construction, excavations, reforestation, creating, or removing ponds)?
- ☐ ☒ Involve dredging activities in a lake, river, pond, or stream?
- ☐ ☒ Increase the amount of thermal heat being discharged to the river or lake?
- ☐ ☒ Increase the concentration or quantity of chemicals being discharged to the river, lake, or air?
- ☐ ☒ Discharge any chemicals new or different from that previously discharged?
- ☐ ☒ Change the design or operation of the intake or discharge structures?
- ☐ ☒ Modify the design or operation of the cooling tower that will change water or air flow characteristics?
- ☐ ☒ Modify the design or operation of the plant that will change the path of an existing water discharge or that will result in a new water discharge?
- ☐ ☒ Modify existing stationary fuel burning equipment (i.e., diesel fuel oil, butane, gasoline, propane, and kerosene)?
- ☐ ☒ Involve the installation of stationary fuel burning equipment or use of portable fuel burning equipment (i.e., diesel fuel oil, butane, gasoline, propane, and kerosene)?
- ☐ ☒ Involve the installation or use of equipment that will result in an air emission discharge?
- ☐ ☒ Involve the installation or modification of a stationary or mobile tank?
- ☐ ☒ Involve the use or storage of oils or chemicals?
- ☐ ☒ Involve burial or placement of any solid wastes in the site area that may effect runoff, surface water, or groundwater?

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RPTS FORM

10CFR50.59 Review Required?	(X) Yes	If Yes, attach 50.59 Review Form
	() No	Not required per LI-101

Cross-Discipline review required?	(X) Yes	(Note affected Departments Below)
	() No	
Preparer Initials>>>		5

Department Cross-Discipline Reviews Needed	Signoff (signed, electronic, telcon)
OSC Coordinator Lead	<i>[Signature]</i> 9-4-01
OSC HP Coordinator Lead	<i>[Signature]</i> 8-4-01
ED Lead	<i>[Signature]</i> 8/21/01

Does this directive contain Tech Spec Triggers? (/) YES (X) NO

REQUIREMENTS CROSS-REFERENCE LIST

Requirement Implemented	by Directive	Directive Paragraph Number
Name	Paragraph Number	That Implements Requirement
GGNS Emer Plan	7.3.2.S5	6.2.1.a(2), NOTE
GGNS Emer Plan	7.5.3.b.S2	6.4.3.e
GGNS Emer Plan	7.3.2.S6	6.1.1
GGNS Emer Plan	7.3.2.S1, S4	6.2.1
GNRO 97/00113	97-15-02-ITEM 2	6.3.2.a(5)
GNRO 97/00113	97-15-01-ITEM 1	6.3.2.a(4)

* Covered by directive as a whole or by various paragraphs of the directive.

NOTE

The Component Database Change Request statement is applicable only to Volume 06 and 07 maintenance directives.

Component Database Change Request generated and the backup documentation available for setpoint and/or calibration data only ☐ Yes ☒ N/A CDBCR # _____**Current Revision Statement****Revision 17:**

- Adds Attachment II, BOSC Setup Instructions
- Grammatical changes
- Adds ACCOUNTABILITY to Section 6.3.4, conditions for using accountability card reader
- Adds 6.4.1 NOTE concerning use of the buddy system for teams to promote efficient use of personnel
- Clarifies use and control of the Control Room Team
- Adds 6.4.2 NOTE to direct Control Room HP to use EPP 29-03 Response Team brief sheet and maintain communications with OSC HP Coordinator
- Removes EAD reader from OSC setup drawing
- Allows setup of OSC similar to drawing
- Corrects placement of No Entry/Exit signs on drawing
- Moves responsibility of designating personnel to carry equipment to BOSC from HP Coordinator to OSC Coordinator

Title: Operations Support Center (OSC) Operations	No.: 10-S-01-29	Revision: 17	Emergency Plan Evaluation
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EVALUATION OF EMERGENCY PREPAREDNESS PROCEDURE

Procedure Number: 10-S-01-29

Procedure Name: Operations Support Center (OSC) Operations

Revision / TCN Number: Revision 17

Does the procedure Revision / TCN require an Emergency Plan change?

☐ () Yes ☒ (X) No**NOTE: IF YES, THIS PROCEDURE CAN NOT BE ISSUED UNTIL THE EMERGENCY PLAN IS
CHANGED / REVISED.**

Reason for 'No' response:

None of the changes modify the applicable portions of the Emergency Plan.Prepared: Richard Sumrall Richard Sumrall 8/30/2001Approved: MSA 9/11/01
Manager, Emergency Preparedness

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1.0 PURPOSE AND DISCUSSION

1.1 Purpose

1.1.1 To provide guidelines for the Operations Support Center, including facility activation, personnel responsibilities, staffing and coordination of emergency response teams.

1.2 Discussion

1.2.1 This procedure should be used by the OSC and Health Physics Coordinators to coordinate and control general OSC emergency operations.

2.0 RESPONSIBILITIES

NOTE

Emergency Response personnel who leave their assigned location temporarily should inform their immediate superior of their location, destination, and estimated time of return.

2.1 Operations Support Center Coordinator - Reports directly to the Emergency Director and is responsible for:

2.1.1 Coordinating OSC activities with the Technical Support Center Coordinator during an emergency.

2.1.2 Dispatching emergency response teams as directed by the Emergency Director.

- a. Emergency Repair Team(s)
- b. First Aid Team(s)
- c. Search and Rescue Team(s)
- d. Mobilizing other required support personnel

NOTE

Ensure an individual is assigned to maintain Plant Status and OSC TEAM STATUS boards.

2.2 Health Physics Coordinator - Reports directly to the Radiation Protection Manager and is responsible for:

2.2.1 Dispatching Onsite Monitoring Teams.

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2.2.2 Coordinating the activities of the Radiation Protection Personnel. |

2.2.3 Providing radiological support to the Operations Support Center Coordinator.

2.2.4 Ensuring that Decon and First Aid stations are established as necessary.

2.2.5 Ensuring that radiological monitoring is performed in manned areas of the Plant during site evacuation.

2.3 OSC Communicator

Reports to OSC Coordinator and provides communication with TSC, Control Room and EOF.

2.4 On-Shift Electrical Maintenance Personnel

Notifying additional maintenance personnel to support OSC operation and to meet the Emergency plan augmentation requirements for the OSC.

3.0 REFERENCES

- 3.1 Administrative Procedure 01-S-08-2, Exposure and Contamination Control
- 3.2 Emergency Plan Procedure 10-S-01-11, Evacuation of Onsite Personnel
- 3.3 Emergency Plan Procedure 10-S-01-23, Reentry
- 3.4 Emergency Preparedness Procedure 10-S-02-3, Emergency Preparedness Form Control

4.0 ATTACHMENTS

- 4.1 Attachment I - OSC Setup Instructions
- 4.2 Attachment II - BOSC Setup Instructions |

NOTE

Checklists are performance aids; they are intended to assist and aid ERO personnel in performance of their tasks. Completion of checklists is not mandatory. The forms are stored in storage bins in the facility.

5.0 DEFINITIONS

- 5.1 Emergency Dosimetry - TLD and High and Accident Range Dosimeters, or TLD and Electronic Alarming Dosimeter (EAD)
- 5.2 OSC - Operations Support Center

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- 5.3 EPP - Emergency Plan Procedures
- 5.4 HPC - Health Physics Coordinator
- 5.5 RPM - Radiation Protection Manager
- 5.6 EOF - Emergency Operations Facility
- 5.7 TSC - Technical Support Center
- 5.8 EAD - Electronic Alarming Dosimeter
- 5.9 OSC Issue Room - A supply room located on the mezzanine in the Maintenance Shop which contains equipment for response teams and OSC operations

6.0 DETAILS

6.1 OSC ACTIVATION

- 6.1.1 The OSC is activated for Alert, Site Area Emergency, and General Emergency classifications. Once activated, the OSC shall become operational as soon as possible (without delay). When facility staffing can be accomplished with onsite personnel, it will become operational within 45 minutes. Otherwise, when personnel staffing the facility are offsite, the facility shall be fully operational in 90 minutes.
- 6.1.2 The Emergency Director designates a person to be the OSC Lead until OSC Coordinator is available.

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6.2 OSC SETUP AND MANNING

6.2.1 Emergency Response Personnel from Operations, Maintenance, Radiation Protection, Engineering, Chemistry and other support groups assemble to form OSC management and response teams.

- a. OSC Coordinator - Designates one or more persons to man radio consoles and telephones. Communications will be established with:

- (1) Technical Support Center (synchronize clocks)
- (2) Control Room

NOTE

A radio console located in the OSC provides communication capabilities with the Control Room, TSC and EOF.

- b. OSC HP Coordinator - Designates one or more persons to :
- (1) Set up OSC.
 - (2) Set up Control Point, First Aid and Decon stations.
 - (3) Response check all survey instruments.
 - (4) Inspect all respiratory equipment, as necessary.
 - (5) Perform periodic OSC habitability surveys.
 - (6) Conduct site boundary surveys (Radiological/Onsite Monitoring Team) as appropriate.
 - (7) Establish communications with the TSC
 - (8) Ensure EAD readers in OSC are operable
- c. OSC Communicator - Establish communications with Control Room and TSC

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d. On-Shift Electrical Maintenance Personnel- are responsible for:

- (1) Determining if the required number of Maintenance personnel (3-Electrical, 2-Mechanical, and 1- I&C) are in the OSC or on site.
- (2) If the required number of maintenance personnel are not in the OSC or on site, call the needed personnel in and have them report to the OSC as soon as possible to support OSC Operations.

NOTE

The Emergency Telephone Book (Section B) contains the names, discipline, and telephone numbers for Maintenance personnel.

6.2.2 Establish Appropriate Radiation Control Measures

- a. If the RPM has determined that radioactivity has extended beyond the CAA, the OSC HP Coordinator ensures that radiological controls are implemented for entry/exit from the OSC. OSC may be setup similar to diagram on Attachment I.

6.2.3 The OSC may be declared operational when manning is adequate to form required emergency response teams.

- a. The TSC must be notified when the OSC is declared operational.

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6.3 OSC OPERATION

6.3.1 OSC Coordinator Activities

- a. The OSC Coordinator must ensure that the following actions are performed as applicable, based on the nature of the emergency event:
 - (1) Rotate Emergency Response Team personnel using available OSC staffing.
 - (2) Monitor OSC supplies such as protective clothing and SCBA air reserves and replenish as necessary.
 - (3) Develop shift schedule for extended OSC operations.
 - (4) Periodically provide plant status updates to OSC staff members.

6.3.2 OSC HP Coordinator activities

- a. The OSC HP Coordinator must ensure that the following actions are performed as applicable, based on the nature of the emergency event.
 - (1) Periodic OSC habitability surveys.
 - (2) Review OSC access controls. If necessary, ensure OSC access controls are established as identified in Section 6.4.5
 - (3) Develop shift schedules for extended OSC manning (Radiation Protection personnel)
 - (4) Monitor OSC HP supplies and emergency respiratory equipment and obtain replacements as necessary.
 - (5) If site evacuation occurs, maintain radiological monitoring of manned areas.

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6.3.3 Habitability Surveys -

The Health Physics Coordinator:

- a. Directs the performance of radiation, contamination and airborne activity surveys.
- b. Reports the results of the OSC habitability surveys to the OSC Coordinator and the Radiation Protection Manager in the TSC.
- c. Announces the habitability results to the facility.

NOTE

If the OSC is determined to be uninhabitable, refer to Section 7.0 of this procedure.

6.3.4 Personnel Accountability and Control

The OSC Coordinator:

- a. Designates an individual to ensure that all available Emergency Response Personnel are listed on the OSC sign-in board and to update plant status information.
- b. Ensures that all OSC personnel use the accountability card reader (if SITE EVACUATION or ACCOUNTABILITY is initiated).
- c. Authorizes Radiation Protection personnel to man the in-plant staging area (HP Lab - 93' Control Building) until the Control Building is evacuated.

6.3.5 Dispatch and Control of an Offsite Monitoring Team from the OSC

- a. The OSC HP Coordinator dispatches an Offsite Monitoring Team (OMT) from the OSC upon request of the RPM (if the EOF is not operational) to track the plume and report offsite radiological data and other information. The monitoring is performed in accordance with 10-S-01-14.
 - (1) The HPC must designate OMT members and ensure that they are briefed and issued proper dosimetry prior to dispatch.
 - (2) The team obtains vehicle and Offsite Monitoring Kit as described in 10-S-01-28, Control of Designated Emergency Vehicles.

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6.3.5 (Cont.)

- b. The HPC should use the OSC OMT radio to direct the Offsite Monitoring team.

NOTE

When the EOF is operational, all Offsite Monitoring Teams presently in the field become the responsibility of the Plume Tracker (EOF).

- c. Radiological data received by the OSC from the team is reported to the RPM.

6.4 EMERGENCY RESPONSE TEAMS (OSC COORDINATOR)

6.4.1 Team Organization- Ensure the following teams are organized to support emergency actions. Specific guidelines for the organization, required equipment and control of each team is provided in the appropriate Emergency Plan Procedure.

a. Radiological/Onsite Monitoring Team

- (1) This team is composed of personnel trained for radiological surveys.

b. Search and Rescue Team/First Aid Team

- (1) This team is manned by at least one Health Physics qualified and one First Aid qualified individual.

c. Repair Teams

- (1) This team is normally made up of maintenance and RP personnel (as appropriate) sufficient to perform the assigned tasks.

NOTE

The 'buddy system' is used whenever personnel enter hazardous areas (ie, plume affected areas or affected areas of the Power Block). To efficiently utilize personnel resources, single person teams may be used in non-hazardous areas.

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6.4.2 Dispatch And Control Of Control Room Teams

- a. Upon initial Alert or higher emergency classification, one of the shift RP technicians reports to the Emergency Director (Shift Manager) in the Control Room to be available for in-plant surveys, job coverage, or radiological consultation. The other shift RP technicians are available to perform site area surveys (as required), begin OSC preparations, or other duties as directed by the Emergency Director (Shift Manager).
- b. Before the OSC is operational, Operations personnel on-shift remain under the direction of the Emergency Director (Shift Manager) and remain in the Control Room. After the OSC is operational, the Safe Shutdown Operators remain in the Control Room and the other Operations Shift personnel may be directed to report to the OSC.
- c. The Shift Manager may immediately request an I&C Technician to report to the Control Room, prior to OSC being declared operational, by contacting the I&C Technician using any available means.
- d. The RP Technician and I&C Technician notify the Shift Manager/Emergency Director and the OSC Coordinator (if OSC is manned) of their arrival at the Control Room.
- e. After activation of the OSC, the OSC Coordinator determines if an I&C Technician has reported to the Control Room, and if required, designates an I&C Technician to report immediately to the Control Room.
- f. If not previously completed, the RP and I&C Technicians obtain appropriate emergency dosimetry and log into the Emergency Radiation Work Permit (RWP) after arrival at the Control Room (or drill RWP if appropriate).
- g. All personnel (including Operations, I&C, and RP) who leave the Control Room envelope are tracked as Control Room Team #1, #2, or similar.
- h. Command and control of the Control Room team(s) remains with the Shift Manager in the Control Room.

NOTE

Protective clothing is available in the Control Room and Technical Support Center emergency supply cabinets.

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6.4.2 (Cont.)

- i. The RP Technician that reports to the Control Room ensures radiological coverage is provided to Control Room teams either through radiological briefings or RP accompanying the team in the field. Any required radiological briefings are performed by the Control Room RP Technician.

NOTE

Briefings may be performed at the most appropriate location and using the most appropriate communication means determined by the RP Technician. The location of the brief may include the Control Room, or while escorting personnel to and from the work area, and/or while at the work area.

Briefings should be documented on EPP 29-03, Response Team Pre-Dispatch Requirements, but may be documented differently and at a later time at the discretion of the RP Technician.

After the OSC is operational, the Control Room RP Technician should maintain communications with the OSC HP Coordinator sufficient to provide radiological briefings that may be required for the Control Room Teams.

- j. The Control Room RP Technician utilizes in plant radiation monitoring equipment to determine if radiological job coverage is required when a team is dispatched and to advise the Emergency Director (Shift Manager) as needed.
- k. Once plant condition have stabilized and at the Emergency Directors discretion, the Control Room Team(s) personnel may be directed to physically report to the OSC.

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6.4.3 General Team Guidelines (all OSC Emergency Response Teams)

- a. Response Team Predispach Requirements (EPP Form 29-03) or similar form are completed before leaving the OSC.
- b. Specific instructions for the organization and control of Radiological Monitoring, Search and Rescue and First Aid Teams are provided in Emergency Plan Procedures 10-S-01-14, 10-S-01-18, and 10-S-01-19.
- c. Each team must be assigned a team leader who is responsible for the direction of the team members and communications with the OSC.

CAUTION

The team leader ensures that adequate communications and radiation detection instrumentation is available for each team.

- d. Each team member is issued emergency dosimetry in accordance with 10-S-01-17.
- e. Each team will be provided a portable radio for communications with the OSC.
- f. The team members must be provided with the appropriate personnel protection equipment based on the actual or potential hazards which the team may encounter. This equipment may include protective clothing, respiratory equipment (SCBAs), radiological survey instruments, and flashlights.
- g. All equipment (e.g., radios, meters, flashlights, voice boxes, PCs, etc.) must be thoroughly checked prior to OSC departure, especially the SCBAs.
- h. The HP Coordinator should periodically brief the dispatched Emergency Response Teams on current radiological conditions.
 - (1) The Team Leader should be notified immediately when radiation levels change in areas they are required to enter.
- i. The OSC Coordinator should periodically brief the dispatched teams on current plant status.

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6.4.4 TSC Update

- a. The OSC Coordinator should periodically brief the TSC on the availability and status of Emergency Response Teams. This report should include:
 - (1) Number of available qualified personnel
 - (2) Remaining radiation exposure margin of team members

6.4.5 OSC Entry and Exit

- a. Establish OSC access controls to direct Emergency Personnel reporting from offsite to the proper OSC entrance by placement of signs, ropes, barriers and/or walkways.
- b. OSC may be setup similar to diagram on Attachment I which shows a recommended setup of the OSC and describes the entry points.

7.0 BACKUP OSC

7.1 Location

- 7.1.1 The Backup OSC is located in the Control Building Elevation 148' (FIN Team Room). The Health Physics Lab may be used as an in-plant staging area, if still habitable.

7.2 Activation

- 7.2.1 If the OSC is not habitable or cannot perform its required functions, the OSC Coordinator directs the activation of the Backup OSC.

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- 7.2.2 When relocating personnel from the OSC to the Backup OSC, the OSC Coordinator:
- Contacts the ED and inform him/her of the situation
 - Contacts the Control Room, TSC, and Security
 - Contacts teams located in the field
 - Transfers the following functions to the Control Room:
 - Response team control
 - If radiological conditions exist, request from the Radiation Protection Manager a determination of requirements (i.e. dosimetry, protective clothing) for relocation and route to the Backup OSC.
 - Ensures all logbooks, current paperwork, and position badges are taken to Backup OSC.
 - Designates personnel to carry additional equipment for use.
- 7.2.3 Prior to leaving the OSC, the OSC Communicator:
- Contacts the Control Room to discuss the status of current teams and locations.
- 7.2.4 The OSC HP Coordinator:
- Dispatches a RP to the Backup OSC to setup.
- 7.3 Setup
- 7.3.1 Upon arrival to the Backup OSC, the OSC Coordinator ensures that the Backup OSC is setup using the BACKUP OSC CHECKLIST (Form EPP 29-07).
- 7.3.2 A board is used to display information normally displayed on the OSC Team Tracking boards.
- 7.3.3 The OSC Coordinator upon arrival:
- Ensure the Backup OSC is setup in accordance with the checklist.
 - Communications can be establish with teams
- 7.3.4 The OSC HP Coordinator upon arrival:
- Ensures facility is habitable.
 - Establishes contact with the Radiation Protection Manager.
 - Briefs the OSC Coordinator on Radiological Conditions.
 - BOSC may be setup similar to diagram on Attachment II which shows a recommended setup of the BOSC and describes the entry points.

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7.4 Operation

7.4.1 The OSC Coordinator declares the Backup OSC operational when:

- a. Sufficient personnel are present to man the Backup OSC.
- b. Advised by the OSC HP Coordinator that the Backup OSC is ready to provide radiological information.

7.4.2 After declaring the backup OSC operational:

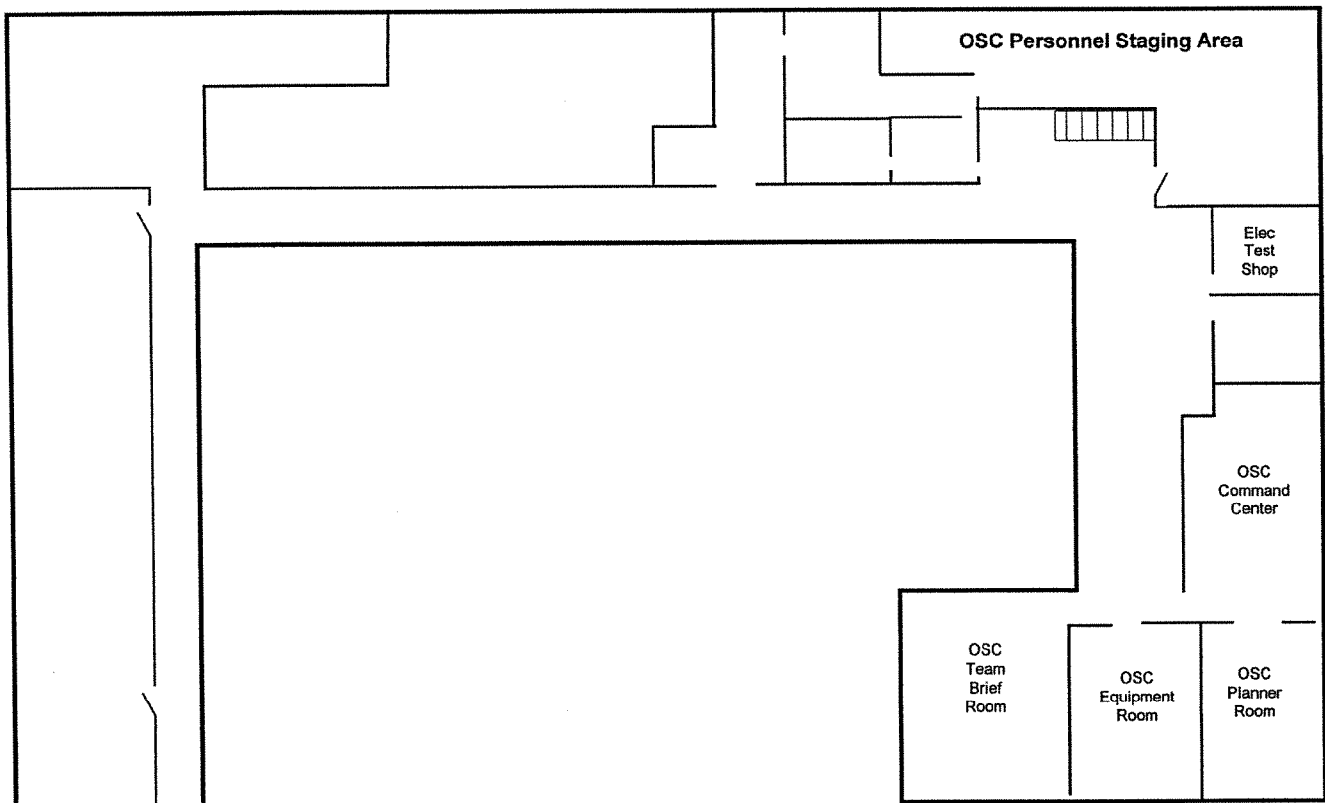
- a. Transfer the following functions from Control Room to the OSC.

(1) Response Team Control

8.0 RECORDS AND INFORMATION

8.1 Forms and paperwork generated by this procedure during emergencies are collected by the OSC Coordinator and forwarded to the Manager, Emergency Preparedness.

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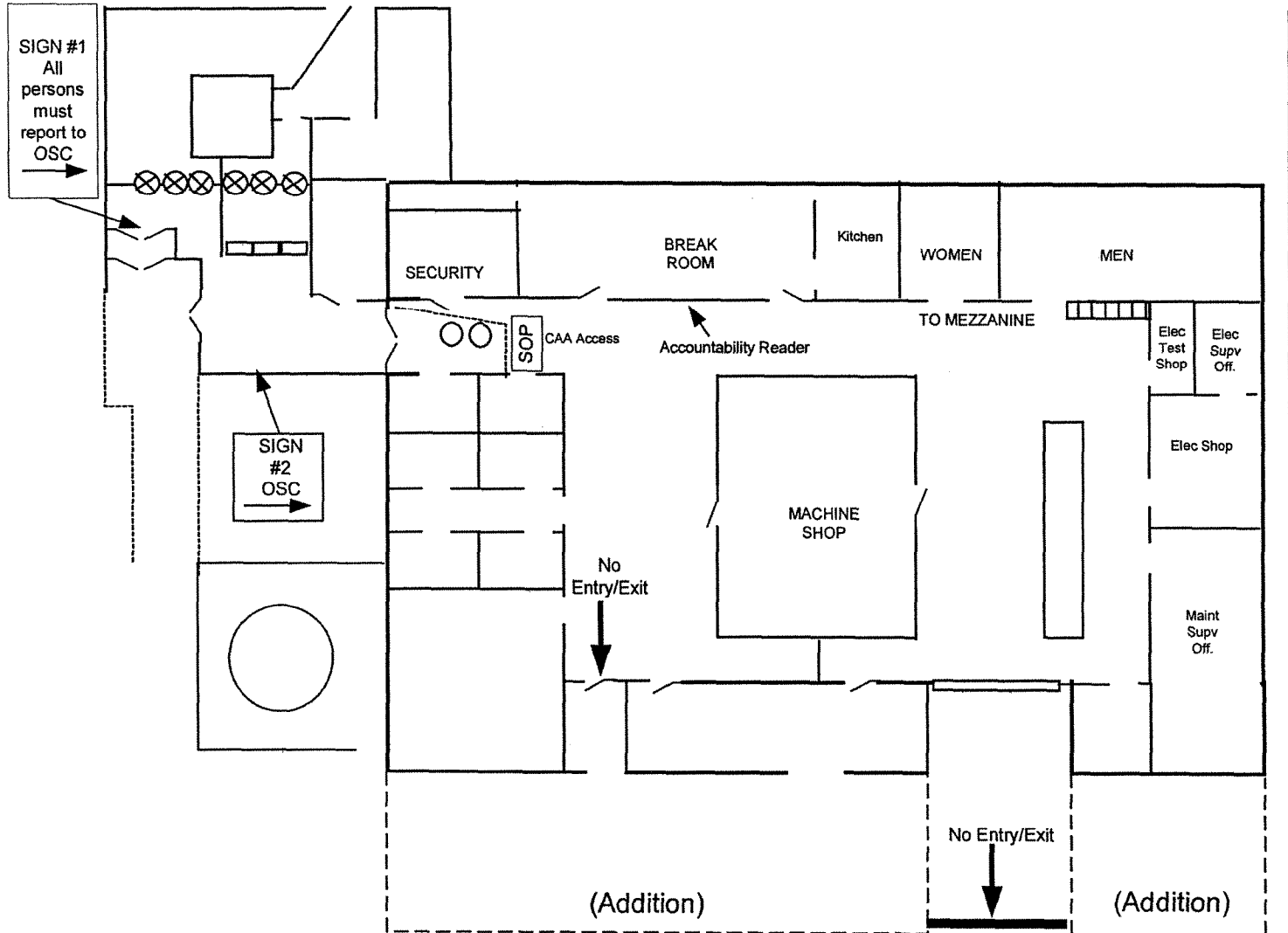
OSC SETUP INSTRUCTIONS

Maintenance Shop Upper Level

To set-up OSC:

- 1) Obtain Keys to issue rooms from OSC key locker.
- 2) Turn on EAD Screens (computers and readers are normally on, reboot computer and readers only if needed)
- 3) If required, set up CAA Access as suggested on Maintenance Shop Lower Level drawing (or similar)
- 4) Place Sign #1 and Sign #2 at locations as shown on Maintenance Shop Lower Level drawing

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OSC SETUP INSTRUCTIONS**Maintenance Shop Lower Level**

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BOSC Setup Instructions

