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December 19, 2001
2130-01-20256

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

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Emergency Plan Implementing Procedure Revisions

In accordance with 10 CFR 50, Appendix E, Section V, enclosed is the newly revised Index for the Oyster Creek Emergency Plan Implementing Procedures and the below listed procedures.

<u>Procedure Number</u>	<u>Title</u>	<u>Revision</u>
EPIP-OC-.01	Classification of Emergency Conditions	12
EPIP-OC-.06	Additional Assistance and Notification	26
EPIP-OC-.10	Emergency Radiological Surveys Onsite	12
EPIP-OC-.13	Site Evacuation and Personnel Mustering at Remote Assembly Areas	9
EPIP-OC-.27	The Operations Support Center	12
OEP-ADM-1319.01	Oyster Creek Emergency Preparedness Program	10

If further information is required, please contact Mr. David G. Slear, Manager, Regulatory Assurance at 609-971-4112.

Very truly yours,



Ron J. DeGregorio
Vice President
Oyster Creek

RJD/JJR:ew

Enclosures

cc: Administrator, Region I
NRC Sr. Project Manager
NRC Resident Inspector

A045

EPIP SERIES - EMERGENCY PLAN IMPLEMENTING PROCEDURES

<u>PROCEDURE NO.</u>	<u>TITLE</u>	<u>REV. NO.</u>	<u>DATE</u>
6630-ADM-4010.03	Emergency Dose Calculation Manual (EDCM)	11	07/23/00
EPIP-OC-.01	Classification of Emergency Conditions	12	12/14/01
EPIP-OC-.02	Direction of Emergency Response/Emergency Control Center	30	11/19/01
EPIP-OC-.03	Emergency Notification	29	11/07/01
EPIP-OC-.06	Additional Assistance and Notification	26	12/12/01
EPIP-OC-.10	Emergency Radiological Surveys Onsite	12	12/12/01
EPIP-OC-.11	Emergency Radiological Surveys Offsite	17	11/07/01
EPIP-OC-.12	Personnel Accountability	9	07/07/01
EPIP-OC-.13	Site Evacuation and Personnel Mustering at Remote Assembly Areas	9	12/10/01
EPIP-OC-.25	Emergency Operations Facility (EOF)	26	12/04/01
EPIP-OC-.26	The Technical Support Center	23	07/05/01
EPIP-OC-.27	The Operations Support Center	12	12/14/01
EPIP-OC-.31	Environmental Assessment Command Center	11	08/08/00
EPIP-OC-.33	Core Damage Estimation	5	08/08/00
EPIP-OC-.35	Radiological Controls Emergency Actions	15	12/07/01
EPIP-OC-.40	Site Security Emergency Actions	12	12/11/01
EPIP-OC-.41	Emergency Duty Roster Activation	6	11/19/01
EPIP-OC-.44	Thyroid Blocking	2	07/21/01
EPIP-OC-.45	Classified Emergency Termination/Recovery	3	12/04/01
OEP-ADM-1311.03	Emergency Preparedness Section Administration	4	08/08/01
OEP-ADM-1319.01	Oyster Creek Emergency Preparedness Program	10	12/12/01
OEP-ADM-1319.02	Emergency Response Facilities & Equipment Maintenance	10	11/20/01
OEP-ADM-1319.04	Prompt Notification System	3	12/08/00
OEP-ADM-1319.05	Emergency Preparedness Event Reports	2	07/02/01

Title THE OPERATIONS SUPPORT CENTER		Revision No. 12
Applicability/Scope Applies to work at Oyster Creek	Usage Level 2	Responsible Department Emergency Preparedness
This document is within QA plan scope 50.59 Reviews Required		Effective Date 12/14/01
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Prior Revision 11 incorporated the following Temporary Changes:

N/A

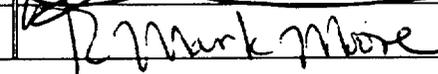
This Revision 12 incorporates the following Temporary Changes:

N/A

List of Pages (all pages rev'd to Rev. 12)

- 1.0 to 6.0
- E1-1 to E1-6
- E2-1 to E2-2
- E3-1 to E3-2
- E4-1 to E4-4
- E5-1
- E6-1 to E6-2
- E7-1 to E7-2
- E8-1
- E9-1
- E10-1
- E11-1
- E12-1 to E12-2
- E13-1
- E14-1
- E15-1
- E16-1

**NON-CONTROLLED
This Document Will Not
Be Kept Up To Date
DCC Oyster Creek**

	Signature	Concurring Organization Element	Date
Originator		EP Coordinator	11/19/01
Approved By		Radiation Protection Manager	11/19/01

Title

THE OPERATIONS SUPPORT CENTER

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DOCUMENT HISTORY

PREPARED BY:
REVIEWED BY:
APPROVED BY:

REVISION	EFFECTIVE DATE	DESCRIPTION OF CHANGE	
4	05/94	Provide instructions on Exhibit 1B for Radwaste Operator Accountability.	
5	09/95	1. Clarify EX6A. 2. Clarify EX7A. 3. Modify EX8 to include UPS. 4. Modify EX10 to renumber damage equip. lockers.	
6	06/97	Improved method of information flow and computer equipment upgrades. Inclusion of communicators duties from EPIP-OC-.04	
7	01/98	Added a check on OSC Activation Checklist to make sure facility doors are open. Added a check on OSC Deactivation checklist to restore doors to original configuration. Delete ED/OPS & Plant Status lines. They are incorporated into OPS Coordinator line.	
8	10/99	Change "in accordance" to "suggested", pg. E1-1 & E7-1. Add RWP# to pg. E4-1 and add "typical arrangement" to pg. E8-1, E9-1. Add Fax Log E 14-1. Add GPU Emergency Message form E15-1, add Communication Log E16-1. Add "contact security for TEAM status update".	
9	DOS	Change references from GPU to OCNCS.	
10	09/00	Clarifies the activation of the OSC from the OSEO at the discretion of the ED.	
11	10/00	Add statement to ensure teams are logged into REM on line. Add statement for OSC coordinator to determine team status from Ops Coordinator.	
12	11/01	Add usage level, change 50.59 to "no", clarify communications link between OSC Coord., Tech. assist and OPS Coord. Remove reference to Maint. kits.	A. T. Smith

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1.0 PURPOSE

1.1 This procedure provides for the activation and functioning of the Operations Support Center (OSC) and Secondary Operations Support Center (SOSC).

1.1.1 The OSC is located in the Drywell Processing Center.

1.1.2 The SOSC is located in the rear of the Technical Support Center (TSC) on the first floor of the Site Emergency Building.

1.2 Guidance and direction are given by this procedure for Command and Control of the OSC, emergency team organization, search and rescue, and damage control operations.

2.0 APPLICABILITY/SCOPE

2.1 This procedure applies to OSC personnel and all others who support the OSC during declared or simulated emergencies.

3.0 DEFINITIONS

None

4.0 RESPONSIBILITIES

4.1 The Operations Support Center (OSC) Coordinator will perform duties in accordance with Exhibit 1.

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- 4.2 The Functional Area Coordinators will complete Exhibit 2A.
- 4.2.1 The Emergency Maintenance Coordinator (EMC) shall direct the activities of maintenance personnel involved in emergency maintenance repair and corrective actions. He may also direct the Equipment Operators in their Emergency Duties as directed by the Operations Coordinator.

NOTE

The Emergency Maintenance Coordinator shall ensure appropriate actions are taken to replace or replenish any respirator equipment used to respond to a plant emergency.

- 4.2.2 The Radiological Controls Coordinator (RCC) shall coordinate onsite and in-plant rad con support in accordance with EPIP-OC-.35, "Radiological Controls Emergency Actions."
- 4.2.3 The OSC Operations Coordinator, if assigned, shall receive directions from the Control Room through the OSC Coordinator and direct the emergency duties of the Equipment Operators.
- 4.2.4 The Medical Representative shall provide triage recommendations and medical assistance as required.

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5.0 PROCEDURE

5.1 On Shift Emergency Organization will be directed to report to the appropriate areas by the Emergency Director (GSS).

5.1.1 OSEO may not be required to immediately activate the OSC.

Their activities will be determined by ED/SSM

5.2 Initial Response Emergency Organization (IREO) personnel will report to the OSC when they are notified of the activation of the ERO and perform the responsibilities identified in their assigned exhibits to this procedure and as requested by their emergency supervisors.

NOTE

Emergency Maintenance, Chemistry, Rad Con, and First Aid equipment locker locations are identified in Exhibit 10, OSC Kits and Locker Locations.

NOTE

Keys for locker padlocks are maintained in the OSC facility key locker, which will be unlocked upon activation of the center. The locker key is in the OSC Coordinator log book. The lock is the "Breakaway" type and can be twisted off by hand if necessary.

6.0 REFERENCES

- 6.1 2000-PLN-1300.01, OCGS Emergency Plan.
- 6.2 EPIP-OC-.01, Classification of Emergency Conditions.
- 6.3 EPIP-OC-.10, Emergency Radiological Surveys Onsite.
- 6.4 EPIP-OC-.12, Personnel Accountability.
- 6.5 EPIP-OC-.26, The Technical Support Center.
- 6.6 EPIP-OC-.35, Radiological Controls Emergency Actions.
- 6.7 Procedure 106, Conduct of Operations.
- 6.8 Procedure 106.6, Conduct of Chemistry Operations.
- 6.9 Procedure 124.2, Control of Plant Engineering Directed Replacements and Modifications.
- 6.10 Procedure OEP-ADM-1319.02, Emergency Response Facilities and Equipment Maintenance.
- 6.11 Procedure 831.10, Operation of the GE Post-Accident Sampling System.

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7.0 EXHIBITS

- 7.1 OSC Coordinator Checklist
 - Exhibit 1A, Activation of OSC
 - Exhibit 1B, Operation of OSC
 - Exhibit 1C, Deactivation of OSC
- 7.2 Functional Area Coordinator Checklist
 - Exhibit 2A, Activation of OSC
 - Exhibit 2B, Operation of OSC
- 7.3 Search and Rescue Assignment
 - Exhibit 3A, Checklist
 - Exhibit 3B, Guidelines
- 7.4 Emergency Team Briefing/Debriefing
 - Exhibit 4A, Briefing Form
 - Exhibit 4B, Debriefing Form
 - Exhibit 4C, Briefing Guidelines
 - Exhibit 4D, Debriefing Guidelines
- 7.5 Emergency Job Planning Guidelines
 - Exhibit 5
- 7.6 Exhibit 6A, Evacuation of OSC to the SOSC OSC Coordinator Checklist
 - Exhibit 6B, Evacuation of OSC to the SOSC Functional Area Coordinators Checklist
- 7.7 Exhibit 7A, Activation of SOSC, OSC Coordinator Checklist
 - Exhibit 7B, Activation of SOSC, Functional Area Coordinators Checklist
- 7.8 Exhibit 8, OSC Floor Plan
- 7.9 Exhibit 9, SOSC Floor Plan
- 7.10 Exhibit 10, OSC Kits and Locker Locations
- 7.11 Exhibit 11, OSC Communicator - Team Status Tracking
- 7.12 Exhibit 12, OSC Communications Coordinator Responsibilities
- 7.13 Exhibit 13, OSC Emergency Shift Schedule
- 7.14 Exhibit 14, OSC Hy Fax Log
- 7.15 Exhibit 15, OSC Emergency Message
- 7.16 Exhibit 16, OSC Communication Log

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EXHIBIT 1A

OSC COORDINATOR CHECKLIST
ACTIVATION OF OSC

CHECK

- _____ 1.0 Ensure the OSC is set up as suggested in Exhibit 8.
- _____ 2.0 The OSC should be declared activated when the following areas are functional:

NOTE

These areas need not be 100% staffed to be considered functional.

- Radiological Protection
- Maintenance Support (appropriate expertise)
- Communications links to Ops Coordinator and TSC Coordinator

- _____ 3.0 Report OSC activated to the Operations Coordinator and log time. _____
- 3.1 Announce to OSC staff that center is activated.
- 3.2 Determine plant and teams status prior to OSC activation, and update center staff.

NOTE

The following actions should be performed expeditiously but are not necessary to declare the OSC functional.

- _____ 4.0 Radiological Monitoring Established
- _____ 5.0 Make sure facility access/egress doors are in the proper configuration. (Facility doors, including Drywell Process Facility, may lock automatically when closed. Tape over or otherwise disable locking mechanism to allow access/egress)

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EXHIBIT 1A (continued)

OSC COORDINATOR CHECKLIST
ACTIVATION OF OSC

CHECK

- _____ 6.0 Areas Staffed:
- _____ 6.1 Emergency Maintenance Coordinator
 - _____ 6.2 Rad Con Coordinator
 - _____ 6.3 OSC Operations Coordinator
 - _____ 6.4 Medical Representative
 - _____ 6.5 OSC Communications Coordinator
 - _____ 6.6 Chemistry Coordinator

NOTE

Notify Security of OSC positions not manned and request appropriate persons be contacted.

- _____ 7.0 Communications established
- _____ 7.1 OSC Coordinator Line
 - _____ 7.2 Communications operability check completed on all center phone/fax systems. Report deficiencies to the OSC Communications Coordinator.

OSC Coordinator

Date/Time

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EXHIBIT 1B

OSC COORDINATOR CHECKLIST
OPERATION OF OSC

- 1.0 Maintain communications with Tech. Assistant in the TSC and receive Team Dispatch Directory via Emergency Director and Operations Coordinator.
- 2.0 Maintain communications with Functional Area Coordinators.
- 3.0 Perform job planning activities using Exhibit 5, Emergency Job Planning Guidelines.
- 4.0 Periodically advise Functional Area Coordinators to provide updates to their respective standby personnel.
- 5.0 Approve the call-out of additional support personnel requested by Functional Area Coordinators as required.
- 6.0 Evaluate the need for an Industrial Safety Representative to provide guidance and recommendations for work involving entry to confined spaces or extreme temperature work conditions.
- 7.0 Periodically advise the ED of the status of all OSC teams.
- 8.0 Notify the Emergency Director if OSC habitability conditions exist that could require evacuation.
- 9.0 If evacuation of OSC becomes necessary, refer to Exhibit 6 A & B, 7 A & B, Evacuation of OSC/Activation of SOSC.
- 10.0 Personnel accountability is performed as directed by the ECC.

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EXHIBIT 1B
(continued)

OSC COORDINATOR CHECKLIST
OPERATION OF OSC

- 10.1 Announce Site Accountability to OSC Staff and ensure that all personnel present in the OSC have key carded into accountability card readers.

NOTE

Radwaste Operators will be tracked as a team at the "ALERT" level and above. Briefings and debriefings will be done via telephone or radio.

- 10.2 Instruct the OSC Communication Coordinator to call Main Gate Security with Radwaste Operator's name and keycard number(s) within ten (10) minutes of initial declaration of accountability.

NOTE

Security Coordinator will track via OSC locations and movements of Security Response Force.

- 11.0 If notified by the Security Shift Command/Designee of Security Computer Failure, complete Steps 11.1 - 11.3.

- 11.1 Assign individual to collect accountability badges.
11.2 Direct individual to sort cards into Main Gate and North Gate groups by color/gate design.

NOTE

Radwaste Operators will be tracked as a team at the "ALERT" level and above. Briefings and debriefings will be done via telephone or radio.

- 11.3 Direct individual to call both Main Gate and North Gate (when utilized) Security with badge slot number within ten (10) minutes of initial declaration of accountability.

- 12.0 If search and rescue activity is required, utilize Exhibits 3A/3B, Search and Rescue Assignment Checklist/Guidelines.

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EXHIBIT 1C

OSC COORDINATOR CHECKLIST
DEACTIVATION OF OSC

CHECK

- _____ 1.0 Directed by the Emergency Director or the Operations Coordinator to deactivate the center.
- _____ 2.0 All teams recalled and debriefed.
- _____ 3.0 All standby personnel notified of deactivation.
- _____ 4.0 Emergency equipment replaced and restored to standby condition.
- _____ 5.0 Center returned to standby condition.
 - _____ 5.1 Restore tables and chairs as required.
 - _____ 5.2 Wipe all status boards clean.
 - _____ 5.3 Refile all prints and procedures as required.
 - _____ 5.4 Restore access/egress doors to original configuration. (including Drywell Process Facility Doors).
- _____ 6.0 Documentation collected.
 - _____ 6.1 OSC Coordinator Checklist, Exhibit 1 A, B, C.
 - _____ 6.2 Functional Area Coordinator Checklists, Exhibit 2 A & B.
 - _____ 6.3 Search and Rescue Assignment Checklists, Exhibit 3 A & B.
 - _____ 6.4 Emergency Team Briefing/Debriefing Forms, Exhibit 4 A & B.
 - _____ 6.5 Evacuation of OSC/Activation of SOSC, OSC Coordinator Checklist, Exhibit 6 A & B.
 - _____ 6.6 Evacuation of OSC/Activation of SOSC, Functional Area Coordinator Checklist, Exhibit 7 A & B.
 - _____ 6.7 OSC Logs.
 - _____ 6.9 Emergency Message Forms.
 - _____ 6.10 Facsimile Machine transmitted documents.
 - _____ 6.11 Print copy of teams from team status computer.

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EXHIBIT 1C (continued)

OSC COORDINATOR CHECKLIST
DEACTIVATION OF OSC

- CHECK
- _____ 7.0 Ensure the following are completed and report discrepancies to the Emergency Preparedness Manager or designee.
 - _____ 7.1 Deliver collected documents from Section 6.0.
 - _____ 7.2 Report missing supplies, equipment, and documents discovered in performing Sections 4.0 and 5.0.
 - _____ 8.0 Report OSC/SOSC secured to the Operations Coordinator in the Emergency Command Center.

OSC Coordinator

Date/Time

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EXHIBIT 2A

FUNCTIONAL AREA COORDINATOR CHECKLIST
ACTIVATION OF OSC

NOTE

All the listed steps need not be completed prior to declaring an area fully functional.

CHECK

- _____ 1.0 Establish work area for respective work.
- _____ 2.0 Assist other Functional Area Coordinators in arranging the OSC (Exhibit 8).
- _____ 3.0 Establish telephone communications on respective emergency line.
- _____ 4.0 Establish radio communications utilizing appropriate radio.
- _____ 5.0 Notify the OSC Coordinator that you have assumed your duties and provide him with a shift schedule for extended operations if applicable.

Functional Area Coordinator

Date

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EXHIBIT 2B

FUNCTIONAL AREA COORDINATOR CHECKLIST
OPERATION OF OSC

- Maintain communications with OSC Coordinators.

NOTE

OSC Communications Coordinators shall perform their duties in accordance with Exhibit 12.

- Maintain awareness of activities of response teams assigned to their respective areas.
- Ensure team briefings are provided to each Emergency Response Team utilizing In-plant Emergency Response Team Briefing. Refer to Exhibit 4C/D, Emergency Team Briefing/Debriefing Guidelines.
- Provide team debriefing to each returning Emergency Response Team utilizing In-plant Emergency Response Team Debriefing.

NOTE

It may be necessary to debrief personnel dispatched prior to the activation of the OSC such as the Fire Brigade, Rad Con and Maintenance personnel to assess plant conditions.

- Coordinate Emergency Response Team activities with Rad Con Coordinator including ingress and egress routes, protective clothing and dosimetry requirements and allowable radiation exposure limits for each assignment.
- Ensure Emergency Response Teams in the field are advised of any changing plant conditions that could affect their routes of travel.
- Call out additional plant personnel as necessary with the OSC Coordinator's approval.
- Establish Relief Duty Roster as required.
- Ensure arriving personnel are directed to the standby assembly area in the Drywell Processing Center.
- Emergency Response Teams shall be formed by the Functional Area Coordinators as required, assigned a team leader, and furnished with portable two-way radio communications for contact with the OSC.

If personnel radiation exposure is anticipated above the limits of 10 CFR 20, only volunteers shall be assigned as team members.

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EXHIBIT 3A

SEARCH AND RESCUE ASSIGNMENT CHECKLIST

TIME/INITIALS

- ____ / _____ 1.0 Notified by Emergency Director or Operations Coordinator of:
- ____ 1.1 Missing person
 - ____ 1.2 Disabled Person
 - ____ 1.3 Trapped Person
- ____ / _____ 2.0 Identification of Person
- ____ 2.1 Name _____
 - ____ 2.2 Work Section _____
- ____ / _____ 3.0 Last known work assignment
- ____ 3.1 Building and Elevation _____
 - ____ 3.2 RWP Number _____
- ____ / _____ 4.0 Emergency Team Number Assignment
- _____
- ____ / _____ 5.0 Functional Area Coordinator briefed
- ____ 5.1 Area: _____
 - ____ 5.2 Rad Con Coordinator _____
- _____ 6.0 Results
- ____ 6.1 Located
 - ____ 6.2 Medical Treatment Required
 - ____ 6.3 Trapped

OSC Coordinator Review

Date/Time

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EXHIBIT 3B

SEARCH AND RESCUE GUIDELINES

NOTE

This section provides guidance in Search and Rescue during emergency conditions.
Paperwork required by procedures should be completed AS TIME PERMITS.
First aid and rescue actions shall have priority over other actions.

- The OSC Coordinator, upon notification of a missing or trapped individual by the Emergency Director or his designee, shall ensure a team is assigned to Search and Rescue and is dispatched in accordance with Sections 1.0 through 5.0 of Exhibit 3A, Search and Rescue Assignment.
- After the individual has been located and if medical assistance is necessary, the team assigned to search and rescue shall render first aid. The OSC Coordinator shall be informed. The RCC shall be informed and assign response using 6630-ADM-4330.02 Attachment 6630-ADM-4330.02-8, Response to a contaminated injury requiring transit offsite
- Search and rescue operations may be terminated by the Emergency Director or his designee when all of the following conditions are met:
 - All missing persons have been accounted for.
 - All injured or disabled persons are in the care of medical personnel in accordance with applicable medical procedures or have been released by the medical representative.
 - All trapped persons have been rescued and released from their entrapment to return to their duties.
 - Search and rescue teams have returned to their duty station to stand by.

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**EXHIBIT 4A
IN-PLANT EMERGENCY RESPONSE TEAM BRIEFING**

Team #: _____ Destination: _____
 Priority #: _____ RWP# _____
 (the Emergency RWP enables the ESRD Dose Rate Function)

Purpose/Job Description: _____

Team Members & Resp. Qual. Status & Available Exposure:					(*Team Leader)			
NAME	FFNP	SCBA	EXP. Avail.	EXP. RCV	NAME	FFNP	SCBA	EXP.
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____

Verify Radio Communications Yes No N/A

RADIOLOGICAL DATA

Authorized Stay Time: _____ HRS. Estimated Exposure: _____ mRem
 PCs Required: Single PCs Double PCs Single PCs w/wet suit Rubber Boots
 Partial PCs Misc. _____

Exp. Protection: _____ Dosimetry Req: TLD 00 mr SRD 500 mr SRD
 _____ SRD

Recommended Route: _____
 Team authorized to exceed normal limits (Y/N): ___ to what dose _____ mRem

ED approval required for emergency exposure;
 Person verifying ED written approval: _____
 _____ Print/Sign _____ Date/Time

Special radiological requirements: _____
 Reviewed ARM data: Yes No N/A

ED Designee: _____
 _____ Print/Sign _____ Date/Time
 Functional Area coordinator/Designee: _____
 _____ Print/Sign _____ Date/Time
 ED Coordinator: _____
 _____ Print/Sign _____ Date/Time
 Date & Time Dispatched: _____

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EXHIBIT 4B

IN-PLANT EMERGENCY RESPONSE TEAM DEBRIEFING

Team Number: _____ Date: _____

Task Completed: (Y/N) _____ Time Back: _____

Status/Work Performed _____

Observed Abnormal Conditions: (Y/N) _____

Exposure Received: _____

Observed plant hazards (i.e., steam, water, electrical, abnormal radiological conditions)

Confirmation of Route: _____

Debriefing Completed/Time: _____

Assessment of Damage/Comments/Materials Used: _____

Plant Con Coordinator/Designee _____ Date _____ Time _____

Functional Area Coordinator/Designee _____ Date _____ Time _____

Coordinator _____ Date _____ Time _____

JO# _____

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EXHIBIT 4C

EMERGENCY TEAM BRIEFING/DEBRIEFING GUIDELINES
EMERGENCY TEAM BRIEFING

NOTE

The RCC shall identify conditions that do not include radiological concerns (i.e., fire outside RCA, no radiological release in progress and not imminent, etc.). In these instances, direct Rad Con coverage may be deleted with concurrence of the OSC Coordinator.

- All departures from the OSC shall be approved by the OSC Coordinator. Names and team numbers of departing personnel shall be logged in the OSC for personnel accountability.
- Ensure all team members are logged into RWP. REM on line and issued appropriate dosimetry.
- OSC Functional Coordinators and/or team leaders shall brief teams using the In-plant Emergency Response Team Briefing Form, Exhibit 4A.
- The Radiological Controls Coordinator, or his designee, shall brief all departing teams in coordination with the team's respective Functional Area Coordinator.
- Functional Area Coordinators shall ensure that job documentation and Briefing Checklists are forwarded to the OSC Coordinator for review upon completion.

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EXHIBIT 4D

EMERGENCY TEAM BRIEFING/DEBRIEFING GUIDELINES
EMERGENCY TEAM DEBRIEFING

- OSC Functional Coordinators and/or Team Leaders shall debrief their respective teams using the In-plant Emergency Response Team Debriefing Form, Exhibit 4B.
- The Radiological Controls Coordinator shall ensure the review of exposures received by Emergency Response Team members to determine whether unanticipated high dose rates were encountered.
- The Radiological Controls Coordinator shall ensure the radiological exposure for each team member is entered in the appropriate records.
- Functional Area Coordinators shall ensure that job documentation, team reports, and debriefing checklists are forwarded to the OSC Coordinator as soon as possible for staff notifications of results, review and record retention.

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EXHIBIT 5

EMERGENCY JOB PLANNING GUIDELINES

NOTE

This section provides guidance in job planning during declared emergencies. Documentation required by normal Station Procedures should be completed as TIME PERMITS but may be deferred until the emergency declaration is secured. Repair and maintenance shall have priority over paperwork requirements.

- * Job planning and implementation during emergency conditions will be controlled by EPIP-OC-.27. However, NORMAL PLANT OPERATIONS AND MAINTENANCE PROCEDURES SHOULD NOT BE DEVIATED FROM UNLESS TO PROTECT THE HEALTH AND SAFETY OF THE PUBLIC OR TO PREVENT IMMINENT DAMAGE TO PLANT EQUIPMENT. The Emergency Maintenance Supervisor should identify procedures to be implemented during the work.
- * Component switching and tagging should be controlled by Procedure 108 (Equipment Control). If appropriate to deviated from 108, ensure effective constraints are employed to protect personnel safety and equipment.
- * Work that is to be performed or controlled by EPIP-OC-.27 shall only be activities that are necessary to place the plant in a safe condition or will result in the ultimate termination of the emergency condition should be performed using approved procedures.
- * Work performed, materials installed, testing performed, and configuration changes made, are important information. This information should be documented on the debrief form (Exhibit 4b). After the emergency conditions are secured, a Job Order should be assigned to the debrief form, and the information entered into GMS2.
- * If a job assignment/task cannot be completed as directed, immediately advise the OSC and receive additional instructions. Continue on with the task utilizing this additional information.
- * If personnel radiation exposures in excess of 10 CFR 20 are anticipated, only volunteers shall be assigned as team members. Emergency Director authorization for exposure shall be documented per EPIP-OC-.35, "Radiological Controls Emergency Actions", Exhibit 7, Emergency Dose Authorization.

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EXHIBIT 6A

EVACUATION OF OSC TO THE SOSC
OSC COORDINATOR CHECKLIST

CHECK

- _____ 1.0 OSC evacuation ordered by the Emergency Director.
- _____ 2.0 Advise Functional Area Coordinators to enter SOSC area from doorway identified by the TSC Coordinator.
- _____ 3.0 Direct Functional Area Coordinators to use Exhibit 6B for evacuation of OSC.
- _____ 4.0 Logs, communication documents, needed supplies and equipment collected for evacuation.
- _____ 5.0 OSC evacuated to the SOSC, and communications re-established with the Control Room (ECC) through the TSC.
- _____ 6.0 All personnel/teams dispatched by the OSC have been notified to report to and return to the SOSC.

OSC Coordinator

Date

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EXHIBIT 6B

EVACUATION OF OSC TO THE SOSC
FUNCTIONAL AREA COORDINATORS CHECKLIST

CHECK

- _____ 1.0 Advise the personnel in their respective areas that the OSC is being evacuated and the appropriate evacuation route as recommended by the RCC and prescribed by the OSC Coordinator.
- _____ 2.0 Ensure all assigned responders are advised of the evacuation and appropriate route to SOSC.
- _____ 3.0 Emergency Maintenance Coordinator to ensure personnel assigned to the Tool Room/Cal Lab are informed of the evacuation.
- _____ 4.0 Collect all documentation.
- _____ 5.0 Ensure OSC equipment identified by the OSC Coordinator is transferred to the SOSC.
- _____ 6.0 Advise all telephone contacts of impending evacuation and terminate telephone communications.
- _____ 7.0 Evacuate OSC utilizing route recommended by RCC and prescribed by the OSC Coordinator.

Functional Area Coordinator

Date

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EXHIBIT 7A

ACTIVATION OF SOSC
OSC COORDINATOR CHECKLIST

CHECK

- _____ 1.0 Establish work area for SOSC as suggested in Exhibit 9, SOSC Floor Plan.
- _____ 2.0 Functional Areas staffed:
 - _____ 2.1 Emergency Maintenance Coordinator
 - _____ 2.2 Rad Con Coordinator
 - _____ 2.3 OSC Operations Coordinator
 - _____ 2.4 Medical Representative
 - _____ 2.5 OSC Communications Coordinator
 - _____ 2.6 Chemistry Coordinator
- _____ 3.0 Communications reestablished
 - _____ 3.1 OSC Coordinator Line
- _____ 4.0 Report SOSC activated to Operations Coordinator and Emergency Director.
 - _____ 4.1 Announce to SOSC staff that center is activated.
 - _____ 4.2 Determine plant status and update center staff.
- _____ 5.0 Ensure all personnel accounted for after relocation.

OSC Coordinator

Date

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EXHIBIT 7B

ACTIVATION OF SOSC
FUNCTIONAL AREA COORDINATORS CHECKLIST

CHECK

- _____ 1.0 Establish work area for respective work support.
- _____ 2.0 Assist other Functional Area Coordinators in arranging the SOSC (Exhibit 9).
- _____ 3.0 Establish telephone communications for respective emergency line.
- _____ 4.0 Notify the OSC Coordinator that you have assumed your duties in the SOSC.

Functional Area Coordinator

Date

EXHIBIT 8

OSC FLOOR PLAN

TYPICAL ARRANGEMENT

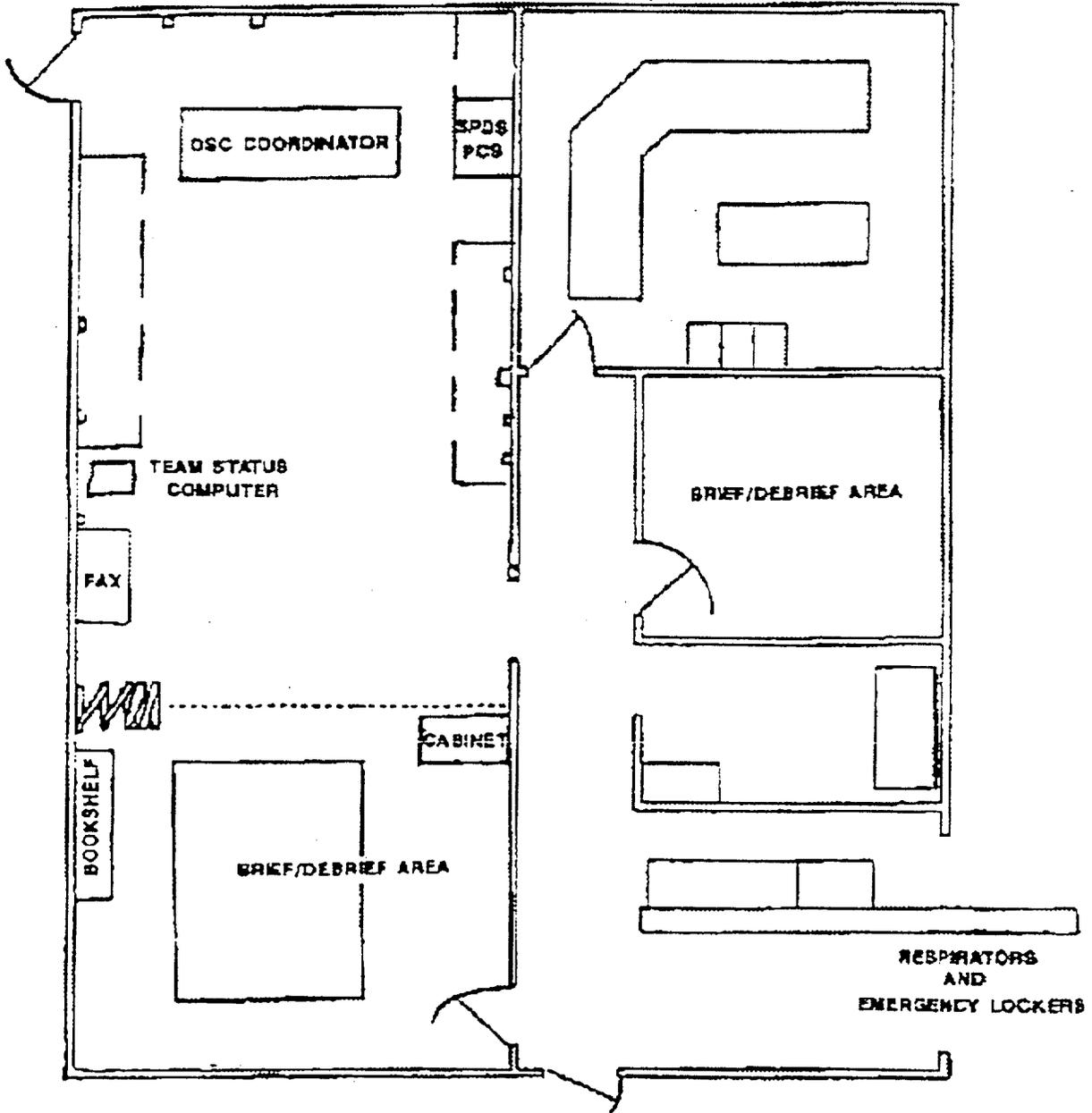
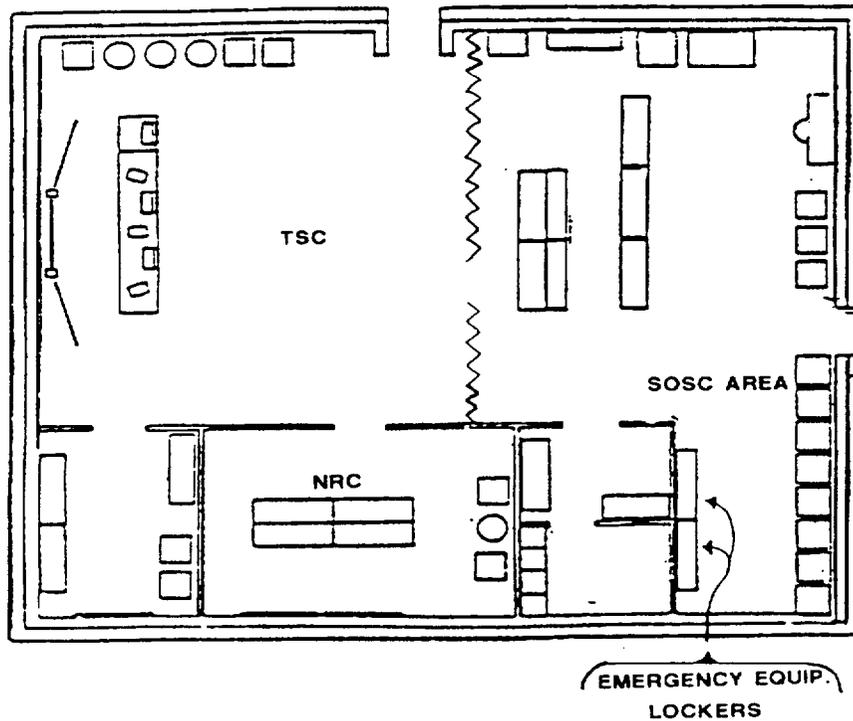


EXHIBIT 9

SOSC FLOOR PLAN
SITE EMERGENCY BUILDING
Secondary Operations Support Center Area

TYPICAL ARRANGEMENT



NOTE

Set up of SOSC will be accomplished by using available tables in that area. Set up should be to accommodate the communication lines As designated in the center.

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EXHIBIT 10

OSC KITS AND LOCKER LOCATIONSEmergency Chemistry EquipmentLocation

OSC (Hallway)

Kit/Locker

Kits #5 and #6

Emergency First Aid and Rescue Equipment

New Radwaste Bldg. Control Room adjacent to door

stretcher

Reactor Building Elevation:

23 ft. adjacent to Drywell entrance

stretcher

23 ft. adjacent to elevator

stretcher and
extrication
locker w/trauma
kit (RB-EL23)

51 ft. adjacent to elevator

stretcher

73 ft. adjacent to elevator

stretcher

119 ft. adjacent to elevator

stretcher

119 ft. stairwell landing

extrication
locker w/trauma
kit (RB-EL119)

Turbine Building Elevation:

0 ft. south, adjacent to Condenser Bay entrance

stretcher

0 ft. north, adjacent to Condenser Bay entrance

stretcher

23 ft. adjacent to elevator

stretcher

46 ft. adjacent to PC change area

stretcher and
extrication
locker w/trauma
kit (TB-EL46)Main Office Bldg., third floor adjacent to Rad Con
monitor and control point

Stretcher

Emergency Rad Pro Equipment

OSC (Hallway)

Rad Pro
Instrument and
Safety Lockers

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EXHIBIT 11OSC COMMUNICATOR - TEAM STATUS TRACKING

- 1.0 Turn on the power to the large NEC monitor in corner.
- 2.0 Turn on power strip under the inside computer cabinet. The team tracking program will load and establish communications with the TSC.
- 3.0 Set time using "Set Time" stamp with PPM.
- 4.0 Select Lotus Notes Application.
- 5.0 When "work space" is available, select "Emergency Preparedness on Notes Server 3".
- 6.0 Select "OSC Communications Coordinator".
- 7.0 Select "OSC Team Tracking".
 - 7.1 Screen will list teams dispatched.
 - 7.2 Screen should be "Refreshed" by striking F9 key occasionally.
- 8.0 Assign the team priority (1-3) according to the following definitions:

Priority 1 - Absolute highest priority. Must be accomplished immediately. All available resources should be focused on priority 1 items.

Priority 2 - Standard priority. Item must be accomplished as soon as possible but can wait for priority 1 items.

Priority 3 - For low priority and long term items.
- 9.0 Enter the team description. Make the description as complete as possible, including member's names. When finished, the team will be transferred to the team listing portion of the screen.
- 10.0 Periodically print copy of teams.

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EXHIBIT 12OSC COMMUNICATIONS COORDINATOR RESPONSIBILITIES

INITIALS

- ____ 1.0 Report to the OSC Coordinator.
- ____ 2.0 Direct the efforts of the OSC Communicators.
- ____ 3.0 Ensure all phone ringers are set below mid-volume to minimize noise level.
- 3.1 Verify phones and FAX machines are functional.
- ____ 4.0 Indicate the development of a watch bill for your organization that will support the emergency on a 24 hour/day basis. (Refer to Exhibit 13)
- ____ 5.0 Ensure all communications personnel use tag board.
- 6.0 Report failed communications system to the TSC Communications Coordinator.

NOTE

Provide specific information for each trouble report including: circuit, nature of problem, location of phone, etc.

- 7.0 Call out additional personnel if required.

NOTE

For call out of Duty Roster positions contact Security Shift Commander. For additional staff contact Group Leader Admin Support. If he is not available, use normal department call-out methods.

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EXHIBIT 12
(continued)

OSC COMMUNICATIONS COORDINATOR RESPONSIBILITIES

INITIALS

- _____ 8.0 Instructions for use of Team Status Tracking System are found in Exhibit 11. Maintain team status board.

NOTE

If the system fails, continue to track teams manually on the Team Status Sheets and forward the information to the ECC and TSC via fax about every fifteen (15) minutes.

NOTE

Radwaste Operators will be tracked as a team at the "ALERT" level and above if applicable. Briefings and debriefings will be done via telephone or radio.

- _____ 9.0 Plant parameters are displayed via Plant Computer System (PCS) in the TSC, OSC, and EOF.

NOTE

If this system fails ensure that the TSC transmits critical plant parameters to the OSC approximately every fifteen (15) minutes or as conditions change. Manually transmitted plant parameters should be displayed on an overhead projector in the OSC or posted in an area where they are available to the OSC Coordinator.

- _____ 10.0 Upon termination of the emergency, ensure communications equipment, supplies and procedures are replaced or returned to a ready status.

- _____ 11.0 Then forward to the OSC Coordinator, all logs and records.

Signature _____ Date _____
OSC Communication Coord.

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EXHIBIT 13

Page of

EMERGENCY SHIFT SCHEDULE
TYPICAL

DATE:
Functional Group:
GROUP (eg. Admin.):

TIME:	SHIFT 1	SHIFT 2	SHIFT 3
BEGIN			
END			

	NAME	NAME	NAME
POSITION #			
P H O N E	HOME #		
	WORK #		
	BEEPER #		
POSITION #			
P H O N E	HOME #		
	WORK #		
	BEEPER #		
POSITION #			
P H O N E	HOME #		
	WORK #		
	BEEPER #		
POSITION #			
P H O N E	HOME #		
	WORK #		
	BEEPER #		

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EXHIBIT 15
TYPICAL

Number _____
Emergency Message
To: <input type="checkbox"/> OSC <input type="checkbox"/> TSC <input type="checkbox"/> EACC <input type="checkbox"/> ECC <input type="checkbox"/> EOF
_____ Staff Position/Other
Message:
Originator: _____ Staff Position Initials Time Date
Location: <input type="checkbox"/> ECC <input type="checkbox"/> TSC <input type="checkbox"/> OSC <input type="checkbox"/> EOF
Reply:
Reply Completed by: _____ Staff Position Initials Time Date

Title CLASSIFICATION OF EMERGENCY CONDITIONS		Revision No. 12
Applicability/Scope Applies to work at Oyster Creek	Usage Level 1	Responsible Department Emergency Preparedness
This document is within QA plan scope 50.59 Reviews Required	<input checked="" type="checkbox"/> Yes ___ No <input checked="" type="checkbox"/> Yes ___ No	Effective Date 12/14/01

Prior Revision 11 incorporated the following Temporary Changes:

N/A

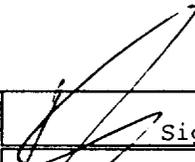
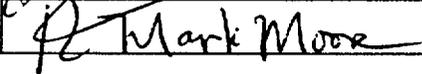
This Revision 12 incorporates the following Temporary Changes:

N/A

List of Pages (all pages rev'd to Rev. 12)

- 1.0 to 9.0
- E1-1 to E1-13
- E2-1 to E2-38
- E3-1 to E3-4
- E4-1

**NON-CONTROLLED
This Document Will Not
Be Kept Up To Date
DCC Oyster Creek**

	Signature	Concurring Organization Element	Date
Originator		Emergency Preparedness Planner	12/13/01
Approved By		Radiation Protection Manager	12/13/01

Title
CLASSIFICATION OF EMERGENCY CONDITIONS

Revision No.
12

PROCEDURE HISTORY

REV	DATE	ORIGINATOR	SUMMARY OF CHANGE
4	11/95	P. Hays	Adds description of "explosion", add EAL for ISFSI facility, rewords UE I.4 to reflect physical changes to plant, and revised/deleted EAL's based on NRC's EPPOS #1.
5	01/99	A. Smith	Add phone number for Lamont-Doherty Observatory, to Category "O" Basis. Add note to Category "Q" Fire to Review Cat. P-2 for Potential Explosive Damage. Update the reference to Rolm phones to Meridian in Category "L" Basis. Change "AND" to "AN" in Category "P" Basis as it relates to explosion.
6	05/99	A. Smith	Rephrase statement in CAT "K" basis for "Major Spent Fuel Damage"
7	03/00	S. Smith	Provide examples of fuel clad damage in table on E4-1. Correct typo on E2-16 MR/HR to MR/YR. Correct typo on E2-29. EAL #4 to EAL #5, add clarifying words to basis relating to the "Facility" for tornado touch down and add "area" to protected boundary.
8	DOS	A. Smith	Change references from GPU or GPUN to OCNCS.
9	11/00	A. Smith	Move applicability statements to conform to procedure format.
10	05/01	A. Smith	Remove reference to MPC limits in Cat. "J" Basis statement for UE Alert, typo CHARMS to CHRRMS, Safety Review req. to "NO".
11	11/01	A. Smith	Revise Category R unusual event classification to clarify security threat classification based on a credible threat as determined by SY-AA-101-132. Also change Group Shift Supv. to Shift Manager.
12	12/01	A. Smith	Revised Cat. "R" U.E. classification to include credible threats reported to the station by NRC.

Title CLASSIFICATION OF EMERGENCY CONDITIONS	Revision No. 12
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Title

CLASSIFICATION OF EMERGENCY CONDITIONS

Revision No.

12

1.0 PURPOSE

- 1.1 To define those conditions which shall be classified as emergency conditions at the Oyster Creek Nuclear Generating Station (OCNGS).
- 1.2 To provide guidance in classifying such conditions.

2.0 APPLICABILITY/SCOPE

- 2.1 To the OCNGS Plant Operations Department and the Emergency Response Organization to identify and classify in-plant or onsite emergency conditions as defined under the OCNGS Emergency Plan.

3.0 DEFINITIONS

- 3.1 Alert - Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.
- 3.2 Emergency Action - Those measures or steps taken to ensure that an emergency situation is assessed (assessment actions) and that the proper corrective and/or protective actions are taken.
- 3.3 Emergency Actions Levels (EAL's) - Predetermined conditions or values, including radiological dose rates, specific contamination levels of airborne or waterborne concentrations of radioactive materials, events such as natural disasters or fire, or specific instrument indications which, when reached or exceeded, require the implementation of the Emergency Plan. See Appendix 1 of this procedure, "Matrix of Emergency Action Levels".

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CLASSIFICATION OF EMERGENCY CONDITIONS

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- 3.4 EAL Applicability - Reactor Plant conditions are specified for which each EAL category of events are applicable. If the plant is in an applicable condition as listed in the category an emergency declaration is required. If the plant is not in a condition listed, an emergency declaration is not required. The definitions of the five possible plant conditions are listed on the bottom of each page in the Matrix of EALs.
- 3.5 Fission Product Barriers
- The Fuel Cladding
 - The Reactor Coolant System (RCS)
 - The Primary Containment
- 3.6 Fuel cladding integrity - The fuel cladding shall be considered breached if coolant activity exceeds 300 uci/gm Dose Equivalent Iodine (DEI) or, Off-gas discharge indicates greater than 10,000 mR/Hr.
- 3.7 General Emergency - Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.
- 3.8 Primary Containment Integrity - The primary containment shall be considered breached if any of the following conditions exist during an accident sequence:
- 3.8.1 Unexplained rapid decrease in D.W. Pressure (exceeds makeup capacity)
- or-
- 3.8.2 Unexplained increase in Secondary Containment A.R.M.'s in more than one area with known or suspected leakage from Primary Containment.
- or-
- 3.8.3 Venting of the D.W. is required for accident control.

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- 3.9 RCS Integrity - Shall be considered breached if there is confirmed leakage from the RCS in excess of 50 gpm.
- 3.10 Site Area Emergency - Events are in process or have occurred which involve an actual or likely major failure of plant functions needed for protection of the public. Any releases are not expected to exceed EPA Protective Action Guideline exposure levels except near Site Boundary.
- 3.11 Sustained - In excess of (5) five consecutive minutes or less at the Emergency Director's discretion.
- 3.12 Unusual Event - Events are in process or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.
- 4.0 RESPONSIBILITIES
- 4.1 The Shift Manager (SM) is responsible for the initial evaluation of abnormal or emergency site conditions and for directing immediate Emergency Plan Implementing Procedure emergency actions once assuming the duties of the Emergency Director.
- 4.2 The Shift Manager (SM) is responsible for implementing this procedure until relieved of Emergency Director duties by a qualified Emergency Director.
- 4.3 The Emergency Director is responsible for the continuous assessment and evaluation of emergency conditions and for directing immediate Emergency Plan Implementing Procedure emergency actions.

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5.0 PROCEDURE

- 5.1 The Shift Manager (SM)/Emergency Director (ED) shall evaluate upon recognition of in-plant and onsite conditions to determine if an Emergency Action Level (EAL) has been attained or will be attained. Appendix 1 of this procedure, "Matrix of Emergency Action Levels", will aid in rapid identification of the appropriate emergency classification. Appendix 2 of this procedure provides the basis for specific EALs. Exhibit 2 provides a guideline for assessing the status of the fission product barriers.
- 5.2 The Shift Manager (SM)/ED shall CLASSIFY the emergency condition when an EAL has been confirmed to be attained or exceeded at the highest applicable Emergency level. The GSS/ED should CLASSIFY an emergency condition before the EAL has been reached if it has been determined with his judgment that the EAL will be reached.
- 5.2.1 Emergency Classifications shall be made as soon as possible after confirmation that an EAL has been met or will be met. This ensures that proper protective and corrective actions are implemented and that appropriate offsite authorities are promptly notified (within 15 minutes of declaration).
- 5.2.2 If a time requirement for an entry condition is not met and information is available indicating that the time requirement will eventually be met, the GSS/ED should without waiting declare the event prior to the time requirement being met.

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5.2.3 If an EAL is missed and discovered at some time in the future, an emergency declaration is not appropriate if the EAL is no longer met. Timely (approximately within 15 minutes) notification to NRC and NJOEM should still be performed indicating the EAL missed and current plant status. Judgment must be exercised in determining if the EAL is no longer in existence. All effects on plant safety must be considered even after the event has passed. (i.e. A tornado striking the facility would normally pass quickly, but the effects on safety equipment could be sustained. Therefore, an ALERT (cat. 0.4.) should be declared as soon as possible even after the tornado has passed.)

5.3 When an emergency classification has been made, the GSS/ED shall IMPLEMENT EPIP-OC-.02 and assume the duties of the Emergency Director until relieved of Emergency Director duties by a qualified Emergency Director.

5.4 The GSS/ED shall CONTINUE ASSESSMENT of in-plant, onsite and offsite emergency conditions that may prompt emergency reclassification.

6.0 REFERENCES

- OCNGS Emergency Plan, 2000-PLN-1300.01.
- OCNGS Emergency Plan Implementing Procedure (EPIP-OC-.02)
"Direction of Emergency Response/Emergency Control Center".
- OCNGS Emergency Operating Procedures.
- NRC Branch Position on Acceptable Deviations to Appendix 1 to NUREG-0654/FEMA-REP-1.

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7.0 EXHIBITS

7.1 Appendix 1, "Matrix of Emergency Action Levels for Emergency Classification".

7.2 Appendix 2, EAL Basis Exhibits.

RPV Level

RPV Pressure

Rx Power

D.W. Temp, Cont. Press, Torus Temp/Level

RCS Integrity

Fuel Conditions

Radiological Releases

Contamination/Rad Material Control

Control Room Indications

Electrical Power

Plant Equipment/Eng. Safety Features

Natural and Man-Made Hazards

Fire

Security/Sabotage

Fission Product Barriers

Emergency Directors Judgement

Ex. 1 Cross Reference Index

Ex. 2 Fission Product Barrier Guidelines

APPENDIX 1

MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

CATEGORY	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>(A) RPV LEVEL</p> <p>Applicability: Power Operations Hot Shutdown Cold Shutdown Refuel</p>	<p>1. RPV Level \leq 86" TAF (Low Low Level) for 5 minutes or longer, -and- Not lowered by procedure</p>	<p>1. RPV Level \leq 61" TAF (Low Low Level) for 5 minutes or longer, -and- Not lowered by procedure</p>	<p>1. RPV Level \leq 0" TAF for 5 minutes or longer, -and- Not lowered by procedure, -or- 2. RPV Level cannot be determined for 2 minutes or longer.</p>	<p>1. RPV Level \leq 30" TAF for 2 minutes or longer <u>NOTE:</u> This condition is indicative of a "loss of 2 out of 3 fission product barriers with a potential loss of the third".</p>
<p>(B) RPV PRESSURE</p> <p>Applicability: Power Operations Hot Shutdown</p>	NONE	<p>1. RX pressure greater than 1230 psig.</p>	<p>1. RX pressure greater than 1375 psig.</p>	NONE
<p>(C) RX POWER</p> <p>Applicability: Power Operations</p>	NONE	<p>1. A scram signal received and power remains greater than 2%.</p>	<p>1. A scram signal received and power remains greater than 2% with torus temperature greater than or equal to Fig. L Boron injection temp. limit per EMG-3200.01B.</p>	NONE
<p>(D) DRYWELL TEMPERATURE</p> <p>Applicability: Power Operations Hot Shutdown</p>	<p>1. Drywell bulk temp. \geq 150°F (normal maximum drywell temperature) but $<$ 281°F for 5 minutes or longer.</p>	<p>1. Drywell bulk temp. cannot be maintained below 281°F. (maximum drywell design temperature)</p>	<p>1. Drywell bulk temp. cannot be maintained below 281°F. (maximum drywell temperature) and containment spray inoperable.</p>	NONE

E1-1

Power Operations - Tech Spec Definition.

Hot Shutdown - **Shutdown Condition or Refuel Mode** as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

APPENDIX 1

MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

CATEGORY	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
(E) CONTAINMENT PRESSURE Applicability: Power Operations Hot Shutdown	1. Three (3) psig or greater containment pressure and RPV level cannot be maintained greater than 138 inches TAF (Lo level scram).	1. Torus pressure >12.0 psig.	1. Torus pressure above primary containment pressure limit (Figure J, EMG-3200.02 - Containment Venting required).	1. Containment hydrogen Concentration equal to or greater than 6% and Drywell or Torus Oxygen Concentration greater than 5%. NOTE: This condition is indicative of a "Loss of 2 out of 3 fission product barriers with a potential loss of the third".
(F) TORUS TEMPERATURE Applicability: Power Operations Hot Shutdown	1. Torus water temperature cannot be restored and maintained below 95°F within 24 hrs. during normal operations or below 105°F while testing.	1. Torus water temperature at or above 110°F.	1. Torus temperature and Rx pressure cannot be maintained below the heat capacity temperature limit. (Figure F, per EMG-3200.02).	NONE
(G) TORUS LEVEL Applicability: Power Operations Hot Shutdown *Cold Shutdown *Refuel	1. Torus water level below minimum LCO (143 inches W.R.) but greater than 110 inches W.R. actual level and cannot be restored within 4 hours. -or- 2. Torus water level above maximum LCO (156 inches W.R.) and cannot be restored within 4 hours.	1. Torus water level at or below 110 inches W.R., and Torus level cannot be restored within 4 hours.	1. Torus level and RPV pressure cannot be maintained below the torus load limit. (Figure E, per EMG-3200.02)	NONE
*Torus Level is <u>not</u> applicable in cold shutdown or refuel conditions if Tech Spec section 3.5.A.1 is <u>not</u> required to be met.				

E1-2

Power Operations - Tech Spec Definition.

Hot Shutdown - **Shutdown Condition or Refuel Mode** as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

APPENDIX 1

MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

CATEGORY	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>(H) RCS INTEGRITY</p> <p>Applicability: Power Operations Hot Shutdown</p>	<p>1. a. Rx isolation confirmed to be caused by:</p> <ul style="list-style-type: none"> • Low-Low Level, -or- • MSL Hi Flow, -or- • MSL Low Press, (with verified pipe break) -or- • MSL Trunnion Room high temperature -or- <p>b. ISO Condenser Isolation confirmed to be caused by: Isolation Condenser Hi Flow (with verified pipe break) -or-</p> <p>c. Primary containment isolation confirmed to be initiated by:</p> <ul style="list-style-type: none"> • Low-Low Level, -or- • Hi Drywell Pressure -or- <p>2. Confirmed Leak rate greater than:</p> <p>a. 5 gpm total unidentified leakage -or-</p> <p>b. 25 gpm total (identified and unidentified) but less than 50 gpm from the Rx Coolant System.</p>	<p>1. a. Rx Isolation required -and- MSIV's malfunction causing unisolated Main Steam Line -or-</p> <p>b. ISO Condenser (IC) isolation required -and- ISO Condenser steam or condensate valves malfunction causing unisolated I.C. -or-</p> <p>c. Primary Cont. isolation required and Primary Cont. isolation valves malfunction causing unisolated release path. -or-</p> <p>2. Confirmed leak rate exceeds 50 gpm from the Rx Coolant System.</p>	<p>1. a. Confirmed main steam line <u>break</u> which exceeds 500,000 lbm/hr outside primary containment -and- MSL's are not isolated -or-</p> <p>b. ISO Condenser break outside primary containment -and- ISO Condenser steam or condensate lines are not isolated.</p> <p><u>NOTE:</u> These conditions represent a loss of containment and Rx Coolant System Barriers.</p>	<p>NONE</p>

E1-3

Power Operations - Tech Spec Definition.

Hot Shutdown - **Shutdown Condition or Refuel Mode** as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

APPENDIX 1

MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

CATEGORY	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>(I) FUEL CONDITIONS</p> <p>Applicability: All plant conditions</p>	<p>Fuel Damage Indicated</p> <ol style="list-style-type: none"> 1. Offgas of 3,330 mR/hr or increase of 666 mR/hr in 30 minutes. -or- 2. Reactor coolant iodine activity of greater than 0.2 uCi/gm, but less than 300 uCi/gm Dose Equivalent Iodine (DEI) -or- 3. Unexplained, verified stack gas rad monitor Hi-Hi Alarm; -or- Unexplained, verified Hi-Hi alarm on any process rad monitor. -or- 4. Main Steam Isolation Valve Closure due to MSL High Radiation 	<p>Loss Fuel Cladding</p> <ol style="list-style-type: none"> 1. Offgas of greater than 10,000 mR/Hr -or- 2. Reactivity coolant Iodine (DEI) activity of greater than or equal to 300 uCi/gm, DEI. 	<p>Significant (20%) Fuel Cladding failure indicated by:</p> <ol style="list-style-type: none"> 1. Containment Hi-Range Radiation Monitoring System (CHRRMS) reading greater than or equal to 2.0E+4 R/Hr -or- 2. Containment Hydrogen greater than or equal to 10%. 	<p>NONE</p>

E1-4

Power Operations - Tech Spec Definition.

Hot Shutdown - **Shutdown Condition or Refuel Mode** as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

APPENDIX 1

MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

CATEGORY	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>(J) RADIOLOGICAL RELEASES</p> <p>Applicability: All plant conditions</p>	<p>1. Noble Gas: Stack Monitor greater than CPSUE* -or- 2. Iodine: Release rate greater than 4 uCi/sec -or- 3. 10 CFR 20, Appendix B, Table 2, Column 2, Limits exceeded in discharge canal at Rt. 9 Bridge -or- Offsite Dose:</p> <p>4. A valid integrated dose at (or beyond) the Site Boundary of greater than or equal to 0.1 mRem total whole body dose (TEDE) but less than 10 mRem total whole body dose (TEDE) exists as indicated by: • dose projections -or- • field team readings -or-</p> <p>5. A valid integrated dose at (or beyond) the Site Boundary of greater than 0.5 mRem (CDE) adult thyroid but less than 50 mRem (CDE) adult thyroid dose exists as indicated by: • dose projections -or- • field team readings</p>	<p>1. Noble Gas: Stack Monitor greater than CPSA** -or- 2. Iodine: Release rate greater than 40 uCi/sec -or- 3. 10 CFR 20, Appendix B, Table 2, Column 2, Limits exceeded by a factor of 10 in discharge canal at Rt. 9 Bridge. -or- Offsite Dose:</p> <p>4. A valid integrated dose at (or beyond) the Site Boundary of greater than or equal to 10 mRem total whole body dose (TEDE) but less than 50 mRem total whole body dose (TEDE) exists as indicated by: • dose projections -or- • field team readings -or-</p> <p>5. A valid integrated dose at (or beyond) the Site Boundary of greater than or equal to 50 mRem (CDE) adult thyroid but less than 250 mRem (CDE) adult thyroid dose exists as indicated by: • dose projections -or- • field team readings</p>	<p>Offsite Dose:</p> <p>4. A valid integrated dose at (or beyond) the Site Boundary of greater than or equal to 50 mRem total whole body dose (TEDE) but less than 1000 mRem (1 Rem) total whole body dose (TEDE) exists as indicated by: • dose projections -or- • field team readings -or-</p> <p>5. A valid integrated dose at (or beyond) the Site Boundary of greater than or equal to 250 mRem (CDE) adult thyroid but less than 5000 mRem (5 Rem) (CDE) adult thyroid dose exists as indicated by: • dose projections -or- • field team readings</p>	<p>Offsite Dose:</p> <p>4. A valid integrated dose at (or beyond) the Site Boundary of greater than or equal to 1000 mRem (1 Rem) total whole body dose (TEDE) exists as indicated by: • dose projections -or- • field team readings -or-</p> <p>5. A valid integrated dose at (or beyond) the Site Boundary of greater than or equal to 5000 mRem (5 Rem) (CDE) adult thyroid exists as indicated by: • dose projections -or- • field team readings</p>
<p>*CPSUE is the Unusual Event trigger provided routinely by Chemistry. **CPSA is the Alert trigger provided routinely by Chemistry.</p>				

Power Operations - Tech Spec Definition.

Hot Shutdown - Shutdown Condition or Refuel Mode as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of Refuel Mode and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

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MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

<u>CATEGORY</u>	<u>UNUSUAL EVENT</u>	<u>ALERT</u>	<u>SITE AREA EMERGENCY</u>	<u>GENERAL EMERGENCY</u>
<p>(K) CONTAMINATION/ RAD MATERIAL CONTROL</p> <p>Applicability: All plant conditions</p>	<p>Independent Spent Fuel Storage Installation</p> <p>1. 2R/hr at the face of a SF Module</p> <p>-or-</p> <p>1R/hr at 1 foot from a damaged Module in the Independent Spent Fuel Storage Installation</p>	<p>Rad Material Control</p> <p>1. Verified mechanical damage to irradiated fuel which results in a high alarm on any of the following refuel floor ARM's: B-9, C-9, C-10.</p> <p>-or-</p> <p>2. Any incident involving rad material which results in unexpected increase of in-plant rad levels or air-borne contamination by a factor of 1000.</p>	<p>Fuel Handling</p> <p>1. Major damage to spent fuel resulting in uncontrolled release of radioactive material, or uncontroll- able decrease in fuel pool water level below top of spent fuel.</p>	<p>NONE</p>

E1-6

Power Operations - Tech Spec Definition.

Hot Shutdown - **Shutdown Condition or Refuel Mode** as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

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MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

CATEGORY	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>(L) CONTROL ROOM INDICATIONS</p> <p>Applicability: Power Operations</p>	<p>Loss of Indications:</p> <ol style="list-style-type: none"> Loss of indication or alarm on processing monitored systems or effluent stream in Control Room, causing Rx to be shutdown. <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> Loss of any means of plant assessment, causing Rx to be shutdown. 	<p>Loss of Indications:</p> <ol style="list-style-type: none"> Loss of 3 or more Control Room Annunciator Panels during power operations for greater than 5 mins. No backup alarm information capability available (SAR & PCS). 	<p>Loss of Indications:</p> <ol style="list-style-type: none"> Loss of 3 or more Control Room Annunciator Panels during power operations for greater than 5 mins. No backup alarm information capability available (SAR & PCS). <p style="text-align: center;">-and-</p> <p>A plant transient condition exists which causes a change in Rx power of more than 10% (APRM).</p>	<p>NONE</p>
<p>(L) CONTROL ROOM INDICATIONS</p> <p>Applicability: All Plant Conditions</p>	<ol style="list-style-type: none"> Valid unplanned loss of all communications capability such that no means of notification to offsite agencies exist as determined by the GSS/ED. 	<ol style="list-style-type: none"> Evacuation of Control Room anticipated or required with control of shutdown system established from local stations within 15 minutes. 	<ol style="list-style-type: none"> Evacuation of Control Room <u>and</u> control of shutdown systems <u>not</u> established from local stations within 15 minutes. 	<p>NONE</p>

E1-7

Power Operations - Tech Spec Definition.

Hot Shutdown - **Shutdown Condition or Refuel Mode** as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

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MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

<u>CATEGORY</u>	<u>UNUSUAL EVENT</u>	<u>ALERT</u>	<u>SITE AREA EMERGENCY</u>	<u>GENERAL EMERGENCY</u>
(M) ELECTRICAL POWER Applicability: Power Operations Hot Shutdown	Loss of Power: 1. Loss of power to 4160V Buses 1A and 1B for greater than one hour; -or- 2. Loss of both diesel generator capabilities for greater than one hour.	Loss of Power: 1. Loss of power to 4160V Buses 1A and 1B for greater than 60 seconds but <u>less than 15 minutes</u> -and- -Loss of both diesel generator capabilities; -or- 2. Loss of all plant vital DC power for greater than 60 seconds but less than 15 minutes.	Loss of Power: 1. Loss of power to 4160V Buses 1A and 1B <u>Exceeds</u> 15 minutes -and- -Loss of both diesel generator capabilities; -or- 2. Loss of all plant vital DC power for more than 15 minutes.	NONE
(M) ELECTRICAL POWER Applicability: Cold Shutdown Refuel/Defueled	3. Loss of power to 4160V Buses 1A and 1B for greater than 60 seconds but <u>less than</u> 15 minutes -and- Loss of both diesel generator capabilities -or- 4. Loss of all plant vital DC power for greater than 60 seconds but less than 15 minutes.	3. Loss of power to 4160V Buses 1A and 1B <u>Exceeds</u> 15 minutes. -and- Loss of both diesel generator capabilities; -or- 4. Loss of all plant vital DC power for more than 15 minutes.	NONE	NONE

Power Operations - Tech Spec Definition.

Hot Shutdown - **Shutdown Condition or Refuel Mode** as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

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MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

CATEGORY	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>(N) PLANT EQUIPMENT ENGINEERED SAFETY FEATURES OR FIRE PROTECTION SYSTEM</p> <p>Applicability: Power Operations Hot Shutdown for SAE, and GE</p> <p>Power Operations Hot Shutdown Cold Shutdown Refuel for UE and Alert</p>	<p>Failure to comply with Tech. Spec. L.C.O.'s</p> <p>1. Plant is not brought to required operating mode within Technical Specification L.C.O Action Statement Time.</p>	<p>Loss of Cold Shutdown Equipment</p> <p>1. Complete loss of all ability to achieve and maintain cold shutdown.</p>	<p>Loss of Hot Shutdown Equipment</p> <p>1. Complete loss of any function needed for plant hot shutdown, (e.g. Rx Prot. Sys. or CRD System) when hot shutdown is required.</p>	<p>Loss of Decay Heat Heat Removal</p> <p>1. Shutdown occurs, but all decay heat removal capability is lost. Significant cladding failure or fuel melt <u>could</u> occur in 10 hours with subsequent containment failure.</p>

E1-9

Power Operations - Tech Spec Definition.

Hot Shutdown - **Shutdown Condition or Refuel Mode** as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

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MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

<u>CATEGORY</u>	<u>UNUSUAL EVENT</u>	<u>ALERT</u>	<u>SITE AREA EMERGENCY</u>	<u>GENERAL EMERGENCY</u>
<p>(O) NATURAL HAZARDS (Earthquakes, Intake Levels High Winds)</p> <p>Applicability: All Plant Conditions for UE and Alert</p> <p>Applicability for SAE 1, 2, 3, & 4 Power Operations, Hot Shutdown.</p>	<p>Natural Phenomenon</p> <ol style="list-style-type: none"> 1. Verified earthquake felt in plant. <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 2. Intake canal water level \leq 2.0 feet as measured by the staff gauge. <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 3. Intake water level 4.5 feet above sea level (1.5 feet below intake structure lower deck). <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 4. Sustained high winds greater than 74 mph, as indicated on wind speed recorder. <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 5. The National Weather Service is forecasting sustained winds in excess of 74 mph for the site within 4 hours. <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 6. The Oyster Creek site is included in a tornado "warning" area. 	<p>Natural Phenomenon</p> <ol style="list-style-type: none"> 1. Earthquake affecting plant operations. <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 2. Intake canal water level \leq 2.5 feet as measured by the staff gauge. <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 3. Intake water level at the intake structure lower deck. <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 4. Sustained hurricane force winds of greater than 95 mph, as indicated on wind recorder. <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 5. Any tornado striking the facility. 	<p>Natural Phenomenon</p> <ol style="list-style-type: none"> 1. Earthquake affecting systems required for shutdown. <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 2. Intake canal water level \leq 3.0 feet, as measured by the staff gauge. <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 3. Intake water level greater than 8 feet above sea level. (2.0 feet above intake structure lower deck). <p style="text-align: center;">-or-</p> <ol style="list-style-type: none"> 4. Sustained wind speed in excess of 100 mph indicated in the Control Room. 	<p>NONE</p>

Power Operations - Tech Spec Definition.

Hot Shutdown - Shutdown Condition or Refuel Mode as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

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MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

CATEGORY	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>(P) MAN-MADE HAZARDS</p> <p>Applicability: All Plant Conditions for UE and Alert</p> <p>Applicability for SAE 1, 2 & 3 Power Operations Hot Shutdown</p>	<p>Hazards Experienced/Projected</p> <p>1. Onsite aircraft crash outside the protected area fence <u>AND NOT</u> impacting permanent plant structures.</p> <p>-or-</p> <p>2. Unanticipated explosion detected near the site <u>OR</u> onsite.</p> <p>-or-</p> <p>3. Near the site or onsite TOXIC GAS, FLAMMABLE GAS or LIQUID release which could affect the habitability required for normal plant operability.</p> <p>-or-</p> <p>4. Turbine rotor component (i.e., blades, wheels, shroud, bearings, or other rotating component) failure causing a Rx trip.</p>	<p>Hazards Experienced/Projected</p> <p>1. Aircraft crash <u>OR</u> other missile impact within the protected area <u>OR</u> onto any permanent structures.</p> <p>-or-</p> <p>2. Known explosion damage to any permanent plant structure.</p> <p>-or-</p> <p>3. Release of TOXIC, or FLAMMABLE GAS into the plant which affects the safe operation of the plant as determined by the Shift Manager/ Emergency Director.</p> <p>-or-</p> <p>4. Turbine failure resulting in casing penetration.</p>	<p>Hazards Experienced/Projected</p> <p>1. Aircraft crash which affects vital structures by impact <u>OR</u> by fire.</p> <p>-or-</p> <p>2. Explosion <u>OR</u> missile impact which caused severe damage to safe shutdown equipment.</p> <p>-or-</p> <p>3. Entry of TOXIC or FLAMMABLE GAS into vital area which affects the operation of safe shutdown equipment.</p>	NONE
<p>(Q) FIRE</p> <p>Applicability: All Plant Conditions</p>	<p>Fire</p> <p>1. Valid Fire inside the Protected Area which cannot be controlled by the fire brigade within 10 minutes from the time of verification.</p>	<p>Fire</p> <p>1. Fire which potentially affects the operability of a Safety System and the plant is in a transient condition requiring the use of the System.</p>	<p>Fire</p> <p>1. Fire which renders a Safety System completely inoperable and that system is needed to function for accident control.</p>	NONE

E1-11

Power Operations - Tech Spec Definition.

Hot Shutdown - **Shutdown Condition or Refuel Mode** as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

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MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

CATEGORY	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>(R) SECURITY-SABOTAGE</p> <p>Applicability: All Plant Conditions</p>	<p>Security Threat</p> <ol style="list-style-type: none"> Shift Manager/Emergency Director determination based on advice from the Site Protection Supervisor that an attempted entry, or attempted sabotage of the site (owner controlled area) condition exists. -or- A credible threat to the station reported by the NRC. -or- An Actual Threat that meets ALL of the following criteria: <ul style="list-style-type: none"> a credible threat reported by any other outside agency or determined per SY-AA-101-132. <u>AND</u> is specifically directed towards the station; <u>AND</u> Is imminent (within 2 hours) Any attempted act of sabotage, which is deemed legitimate in the judgement of the Group Shift Supervisor/Emergency Director, and affects the operation of the plant. 	<p>Security Threat</p> <ol style="list-style-type: none"> Shift Manager/Emergency Director determination based on advice from the Site Protection Shift Supervisor that the compromise is onsite, but no penetration of the protected area has occurred. -or- Any act of sabotage which results in an actual or potential substantial degradation of the level or safety of the plant, as judged by the Group Shift Supervisor/Emergency Director. 	<p>Security Threat</p> <ol style="list-style-type: none"> Shift Manager/Emergency Director determination based on advice from the Site Protection Shift Supervisor that security of the plant (vital area) is threatened by unauthorized (forcible) entry of the facility (protected area). -or- Any act of sabotage which results in an actual or likely major failures of plant functions needed for the protection of the public, as judged by the Shift Manager/Emergency Director. 	<p>Security Threat</p> <ol style="list-style-type: none"> Shift Manager/Emergency Director determination based on advice from the Site Protection Shift Supervisor that the loss of physical security control of the plant (vital area) has occurred. -or- Any act of sabotage which results in imminent significant cladding failure or fuel melting with the potential for loss of containment integrity or the potential for the release of significant amounts of radioactivity in a short time as judged by the Shift Manager/Emergency Director.
<p>(S) FISSION PRODUCT BARRIERS</p> <p>Applicability: Power Operations Hot Shutdowns</p>	None	None	None	<p>Fission Product Barriers</p> <ol style="list-style-type: none"> Loss of 2 of 3 fission product barriers with potential loss of the third (i.e., loss of coolant accident, failure of ECCS, Core Melt Probable and Loss of Containment imminent).

Power Operations - Tech Spec Definition.

Hot Shutdown - **Shutdown Condition or Refuel Mode** as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

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MATRIX OF EMERGENCY ACTION LEVELS FOR EMERGENCY CLASSIFICATION

CATEGORY	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>(T) EMERGENCY DIRECTOR'S JUDGMENT</p> <p>Applicability: All Plant Conditions</p>	<p>Whenever plant conditions are in progress or have occurred which may indicate a potential degradation of the level of safety of the plant, as judged by the Shift Supervisor/Emergency Director.</p> <p><u>NOTE:</u> In exercising the judgment as to the need for declaring an Unusual Event, uncertainty concerning the safety status of the plant, the length of time the uncertainty exists and the prospects of resolution of ambiguities in a reasonable time period is sufficient basis for declaring an Unusual Event.</p>	<p>Whenever plant conditions are in progress or have occurred which may involve actual or potential substantial degradation of the level of safety of the plant, as judged by the Shift Supervisor/Emergency Director.</p> <p><u>NOTE:</u> In exercising the judgment as to the need for declaring an Alert, uncertainty concerning the safety status of the plant, the length of time the uncertainty exists the prospects for resolution of ambiguities beyond a reasonable time period and the potential of the level of safety of the plant is sufficient basis for declaring an Alert.</p>	<p>Whenever plant conditions are in progress or have occurred which may involve actual or likely major failures of the plant functions needed for the protection of the public as judged by the Shift Supervisor/Emergency Director.</p> <p><u>NOTE:</u> In exercising the judgment as to the need for declaring a Site Area Emergency, uncertainty concerning the status of the plant functions needed for the protection of the public, the length of time of the uncertainty exists, the prospects for resolution of ambiguities beyond a reasonable time and the potential degradation of the plant functions needed for protection of the public is sufficient basis for declaring a Site Area Emergency.</p>	<p>None</p>

E1-13

Power Operations - Tech Spec Definition.

Hot Shutdown - **Shutdown Condition or Refuel Mode** as defined by Tech Spec and Rx coolant temperature not below 212°F or not vented.

Cold Shutdown - Tech Spec Definition.

Refuel - Tech Spec Definition of **Refuel Mode** and Rx coolant temperature below 212°F and vented.

Defueled - No fuel in the reactor vessel.

(EPIP01/S3)

Title

CLASSIFICATION OF EMERGENCY CONDITIONS

Revision No.

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APPENDIX 2

Category A "RPV Level"

(A) Condition Applicability	<i>Power Operations, Hot Shutdown, Cold Shutdown, Refuel</i>
Basis	<i>Because Tech Specs recognize reactor level as a Safety Limit when there is irradiated fuel in the vessel, this EAL category shall apply for all conditions while there is fuel in the vessel. The only condition which does not apply is the Defueled condition.</i>
Classification	Unusual Event
EAL	RPV level ≤ 86 " TAF (Low-Low Level) for 5 minutes or longer, -and- Not lowered by procedure
Basis	This EAL is a precursor to situations leading to inadequate core cooling conditions. This situation indicates a potential degradation of the level of safety of plant due to an apparent inability to maintain normal makeup to the reactor vessel. This EAL is not intended to be applied to momentary reductions of level due to transients such as a Rx scram where level is controlled below the normal operating level. The use of 86" TAF as the setpoint is based on the Tech Spec value (7'2") as discussed under the Limiting Safety System Settings bases as an initiation signal to the Core Spray System to ensure adequate Core Cooling. The 5 minutes is to prevent declaration of events which are simply transient conditions and not sustained failures. Intentional level reductions in accordance with SBEOPs or approved operation/maintenance procedures are not considered level control emergencies for the UE, Alert or SAE classes.
Classification	Alert
EAL	RPV level ≤ 61 " TAF (Low-Low-Low Level) for 5 minutes or longer, -and- Not lowered by procedure
Basis	The inability to maintain RPV level above 61" TAF should be considered a substantial degradation of the level of safety of the plant. The use of 61" TAF as the setpoint is based on the Symptom Based Emergency Operating Procedures. This lower limit for the alternate RPV water level control band is to ensure contingency actions can be initiated before RPV level decreases to the top of active fuel. This value is utilized to be consistent with the SBEOP's concern for Core Cooling by submergence. The 5 minutes is to prevent declaration of events which are simply transient conditions and not sustained failures. Intentional level reductions in accordance with SBEOPs or approved operation/maintenance procedures are not considered level control emergencies for the Alert class.

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CLASSIFICATION OF EMERGENCY CONDITIONS

Revision No.

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APPENDIX 2
(continued)

Category A "RPV Level"

Basis (con't)
Classification

Site Area Emergency

EAL

- (1) RPV level ≤ 0 " TAF for 5 minutes or longer
-and-
Not lowered by procedure
-or-
(2) RPV level cannot be determined for 2 minutes or longer

Basis

- (1) This EAL addresses the potential concern of adequate core cooling resulting from major failure of plant functions needed for the protection of the public. This condition assumes a loss of coolant in excess of makeup capacity with the potential loss of adequate core cooling. The use of 0" TAF is based on the SBEOP concern that the only mechanism to assure adequate core cooling is steam cooling. Intentional level reductions in accordance with SBEOPs or approved operation/maintenance procedures are not considered level control emergencies for the SAE class.
- (2) This EAL is intended to address the circumstances where "RPV level cannot be determined" as used by the SBEOP's. Since level cannot be determined the conservative assumption is made that it is less than the top of the active fuel. The 2 minutes is used because it is the most limiting maximum core uncover time and therefore provides additional conservatism. This EAL may escalate to the GE class based on indications of further degradation such as increasing Containment Hydrogen concentration, Containment High Range Radiation Monitors or other indicators of a "loss of 2 out of 3 fission product barriers with a potential loss of the third".

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CLASSIFICATION OF EMERGENCY CONDITIONS

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APPENDIX 2

(continued)

Category A "RPV Level"

Classification	General Emergency
EAL	RPV level \leq -30" TAF for 2 minutes or longer,
Basis	<p>This EAL assumes a breach of the RCS is the cause of the low RPV level. Due to the low level, overheating of the fuel clad with subsequent failure could occur leading to a potential containment failure. The cladding failure may be exhibited by the production of hydrogen. If this condition exists venting of the containment could be required. Under this set of circumstances plant conditions are unstable indicating a "loss of two out of three fission product barriers with a potential loss of the third. The use of -30" TAF is in recognition of the loss of core submergence and the loss of the Minimum Steam Cooling Water Level as identified in the SBEOP's. Further degradation may lead to clad failure and ultimately substantial core damage. The 2 minutes establishes the conservative approach by assuming the core is uncovered within 5 minutes of S/D, thereby meeting the max. core uncover time limit.</p> <p>It should also be noted, the classification is required even if a procedure would instruct such actions (level/power control) due to the potential for fuel damage under such extreme conditions.</p>

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APPENDIX 2

Category B "RPV Pressure"

(B)
Condition Applicability *Power Operations, Hot Shutdown*

Basis *For the vessel to have pressure present the reactor must be in either Power Operation or Hot Standby condition. The other conditions by definition do not include any pressure operation.*

Classification Alert

EAL Rx pressure greater than 1230 psig.

Basis This EAL is an escalation of the U.E. class. The value of 1230 psig was selected because it is the highest opening value for the safety valves as specified in Technical Specifications. This condition is indicative of a continuing pressure control failure which was not corrected by several safety functions. This EAL is not intended for short-lived pressure spikes such as after the design based transient - turbine trip without bypass capability, but rather a continuous high pressure condition, (existing for 5 consecutive minutes).

Classification Site Area Emergency

EAL Rx Pressure greater than 1375 psig

Basis This EAL is a further escalation of the high pressure condition. The value 1375 psig was selected because it is the safety limit value provided in Tech Specs. The pressure vessel is capable of withstanding this pressure, however, the extent to which this value can be exceeded and the duration of the condition is not readily known. Pressures in excess of design can lead to catastrophic failure of the vessel, having unknown impact on the fuel clad and containment barriers. Additionally this condition is indicative of a major loss of pressure control ability. For these reasons confirmed RPV pressures in excess of 1375 psig for any length of time should be classified at this level.

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APPENDIX 2

Category C "Rx Power"

(C)
Condition
Applicability

Power Operation

Basis

The Alert and SAE levels require Rx power to remain above 2%. By definition the only condition which the Rx can be critical in is Power Operations. The other conditions do not allow criticality by design and therefore do not apply.

Classification

Alert

EAL

A scram signal received and power remains greater than 2%.

Basis

This EAL is intended to address the failure of the RPS to initiate and complete a scram which brings the reactor subcritical. This condition represents a major failure of the reactor protection system to complete its intended function. Such a failure is a substantial degradation of the level of safety of the plant. This EAL does not distinguish between a manually initiated scram or automatically initiated scram. If either method fails to initiate and complete the scram function and power remains greater than 2%, this EAL is met regardless of whether a backup function is implemented to completion.

Classification

Site Area Emergency

EAL

A scram signal received and power remains greater than 2% with torus temperature greater than or equal to Figure L, Boron injection initiation temperature limit per EMG-3200.01B.

Basis

This EAL is an upgraded condition of the Alert Classification. In conjunction with the failure of the RPS, the main condenser is assumed to be lost causing the containment to absorb the energy from the reactor. Continued operation in this manner could lead to a major failure of the primary containment which would have a significant impact on the general public.

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APPENDIX 2

Category D, E, F, G "D.W. Temp, Cont. Press. Torus Temp and Level"

(D & E)
Condition
Applicability

Power Operations, Hot Shutdown

Basis

The OC EAL basis for both of these categories is to address conditions which could lead to a loss of containment integrity. OC Tech Specs require containment integrity to be provided whenever the plant is greater than 212 °F. or the Rx is critical (except during physics testing). By definition the only conditions which apply to critical or hot operations are Power Operation and Hot Shutdown.

(F)
Condition
Applicability

Power Operation, Hot Shutdown

Basis

Torus temperature is an indication of a reactor coolant leak when at power or hot. Additionally, its temperature is considered in accident analysis for accidents occurring while at power.

Tech Specs Section 3.5.A.1.C specifies when torus temperature limits apply. All limits are stated for power operation.

Because containment integrity is required when hot or critical, torus temperature EALS are required when in Power Operation or Hot Shutdown.

(G)
Condition
Applicability

*Power Operations, Hot Shutdown, *Cold Shutdown, *Refuel*

Basis

*Torus level is required for conditions beyond conditions requiring containment integrity. Tech Spec Section 3.5.A.1.a&b state the max and min level allowed in the Torus and they are limiting if there is irradiated fuel in the vessel and work is being done which has potential to lower vessel level or the RPV is pressurized. This means torus level limits apply to all defined EAL Rx conditions except for Defueled or if Tech Spec Section 3.5.A.1 is not required to be met (*while in Cold Shutdown or Refuel).*

Classification

Unusual Event

EAL's

- Cat. D Drywell bulk temperature $\geq 150^{\circ}\text{F}$. (Normal maximum D.W. temperature) but less than 281°F for 5 minutes or longer.
- Cat. E Three psig or greater containment pressure and RPV level cannot be maintained greater than 138 inches TAF. (Lo Level Scram)
- Cat. F Torus water temperature cannot be restored and maintained below 95°F within 24 hours during normal power operations or below 105°F while testing.
- Cat. G Torus water level below minimum LCO - or above maximum LCO -, and cannot be restored within 4 hours.

Title

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APPENDIX 2

(Continued)

Category D, E, F, G "D.W. Temp, Cont. Press. Torus Temp and Level"

Basis	The EAL's in these categories at the U.E. Class are intended to address those precursor events and conditions which could lead to a loss of containment integrity. These EAL's are considered potential problems which have an impact on containment integrity. The primary concern is mitigation of the condition which is posing a threat to the containment.
Classification	Alert
EAL's	<p>Cat. D Drywell bulk temp cannot be maintained below 281-F. (Maximum drywell design temperature.)</p> <p>Cat. E Torus pressure >12.0 psig.</p> <p>Cat. F Torus water temperature at or above 110-F.</p> <p>Cat. G Torus water level at or below 110 inches W.R., and torus level cannot be restored within 4 hours.</p>
Basis	The alert classification assumes a breach of the reactor coolant system has caused the increased containment parameters or a breach of the containment is the cause of the decreased torus level. Under these assumptions, the containment parameters utilized are indicative of a substantial degradation in the level of safety of the plant. These conditions should be validated by other plant parameters indicating a loss of coolant to the containment or a torus leak.
Classification	Site Area Emergency
EAL's	<p>Cat. D Drywell bulk temp. cannot be maintained below 281-F and containment spray is inoperable.</p> <p>Cat. E Torus pressure above primary containment pressure limit (Figure J - EMG-3200.02 Containment Venting req'd).</p> <p>Cat. F Torus temperature and Rx pressure cannot be maintained below the heat capacity temperature limit (Figure F, EMG-3200.02).</p> <p>Cat. G Torus level and RPV pressure cannot be maintained below the torus load limit (Figure E, EMG-3200.02).</p>
Basis	The conditions necessary to meet these EAL's are assumed to be from a breach of the Reactor Coolant System. These conditions are upgraded from the Alert Class because of the potential loss of containment. The breach of the containment may be from it's inability to withstand further stress or, intentional venting when directed by procedure. In any case this provides a release path to the environment which could adversely affect the general public.

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APPENDIX 2

(Continued)

Category D, E, F, G "D.W. Temp, Cont. Press. Torus Temp and Level"

Classification	General Emergency
EAL	Cat. E Containment H ₂ concentration equal to or greater than 6% and D.W. or Torus O ₂ concentration greater than 5%.
Basis	This EAL is intended to cover those situations where the hydrogen production is due to the zirconium-water reaction expected in fuel melt sequences. The oxygen component may be achieved through venting the containment or other means are possible. With the levels of 6% hydrogen and 5% oxygen an explosive mixture could exist. If ignited this could cause a breach of the containment. Since the fuel clad is already breached (zirc-water reaction) and the RCS is breached (hydrogen in containment) then this situation should be considered a loss of 2 out of 3 fission product barriers with a potential loss (or actual loss) of the third.

Title

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APPENDIX 2

Category H "RCS Integrity"

(H)
Condition
Applicability

Power Operations, Hot Shutdown

Basis

*All items listed in this category are listed for systems required if hot or at power.**When in Cold S/D or Refuel condition, excessive leakage will cause RPV level to decrease and EAL category (A) will become the entry action level for these events.**This category is not applicable in the Defueled condition because RPV conditions are no longer supporting irradiated fuel containment.*

Classification

Unusual Event

EAL

- 1a. Rx Isolation confirmed to be caused by:
 - Low-Low level, -or-
 - MSL hi flow, -or-
 - MSL Low Press, (with verified pipe break)
 - MSL Trunnion Room high temperature

-or-
- b. Iso Condenser isolation confirmed to be caused by:
Isolation Condenser Hi Flow (with verified pipe break)
- or-
- c. Primary Containment Isolation confirmed to be initiated by:
 - Low-Low Level, -or-
 - Hi Drywell Pressure

-or-
2. Confirmed leak rate greater than:
 - a. 5 gpm total unidentified leakage
 - or-
 - b. 25 gpm total (identified and unidentified) but less than 50 gpm from the Rx Cool. System

Basis

The EAL's presented in this class are indicative of a significant leak from the Reactor Coolant System. The conditions under item 1 indicate the need to stop a presumed leak and the isolation function works.

The EAL's under item 2 are derived from the Tech Spec LCO on Rx Coolant allowable leak rate, since the Nureg specifically requires meeting this condition. In order to address relatively small leak rate concerns, confirmatory actions (assessment) should be done expeditiously, preferably within one hour of identification of problem. These EAL's should not be applied in circumstances which do not require meeting the Tech Spec conditions such as testing, or when the vessel is de-fueled.

Title

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APPENDIX 2

Category H "RCS Integrity"

Classification Alert

EAL

- 1a. Rx isolation required
 - and-
 - MSIV's malfunction causing unisolated main steam line
 - or-
- b. Iso Condenser (I.C.) isolation required
 - and-
 - Iso Condenser steam or condensate valves malfunction causing unisolated I.C.
 - or-
- c. Primary Containment isolation required and primary containment isolation valves malfunction causing unisolated release path
 - or-
2. Confirmed leak rate exceeds 50 gpm from the Rx Coolant System

Basis

The intent of EAL #1 is to address the failure of the automatic isolation function. This is considered a significant degradation in the level of safety of the plant since the automatic function was required and did not occur or continue to completion. If a manual isolation is initiated by operator actions prior to the automatic function taking place this classification should not be declared. Alternately, if the automatic function fails to occur and a manual isolation or operator initiated isolation (eg. mode switch placed in run with MSL pressure less than 850) is implemented, the conditions of these EAL's are met. If the manual isolation actions fail to be effective consideration should be given to the SAE class of this category for continued release concerns.

Title

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APPENDIX 2

Category H "RCS Integrity"

Classification Alert

Basis

The intent of EAL #2 is to address excessive leak rates from the Rx Coolant System. Confirmation of the leak rate should be done expeditiously, preferably within one hour of identification of the problem. Leak rate may be integrated over a reasonable period of time (e.g., 30 minutes) in cases where accuracy is important (i.e., around 50 gpm), but in cases of obvious large leaks, this period should be minimized. Thirty minutes was chosen as the integration period because it represents approximately 8 inches of RPV level at 50 gpm and is a marked step increase from the Unusual Event EAL. Thirty minutes also allows for an accurate measurement that reduces effects of transient conditions. A leak of this magnitude has the potential to cause damage to other equipment even during periods when there is no fuel in the vessel. For this reason, leaks from the RCS at this rate or higher require declaration of an Alert.

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APPENDIX 2

Category H "RCS Integrity"

Classification	Site Area Emergency
EAL	<p>1a. Confirmed main steamline break which exceeds 500,000 lbm/hr outside primary containment -and- Main steamlines are not isolated -or- b. Iso Condenser break outside primary containment -and- Iso Condenser steam or condensate lines are not isolated</p>
Basis	<p>The conditions cited in these EAL's represent a release path to the environment. Under these conditions 2 fission product barriers are breached (Rx Coolant System indicated by the leak and primary containment indicated by failure to isolate or is being bypassed). Off-site dose assessment should be performed before de-escalation or termination from this condition because of the unknown release impact. The reason that 500,000 lb/hr was chosen is that this is the smallest value that CR instrumentation can indicate on the main steamline flow instrument on the front panel.</p> <p>Other situations may occur which indicate a failure of the RCS and also bypass containment, under these conditions E.D. Judgement may apply, but in all cases dose assessment should be performed.</p> <p>These EAL's are intended to address the Nureg statement "BWR steam line break outside containment without isolation".</p>

Title

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APPENDIX 2

Category I "Fuel Conditions"

(I)

**Condition
Applicability****All Plant Conditions.****Basis****All conditions apply because even fuel pool accidents could lead to conditions meeting some of the EALs listed here.**

Classification

Unusual Event

EAL's

Fuel Damage Indicated

1. Offgas of 3,330 mR/hr, or increase of 666 mR/hr in 30 min.
-or-
2. Reactor coolant Iodine activity of greater than 0.2uCi/gm, but less than 300 uCi/gm Dose Equivalent Iodine (DEI)
-or-
3. Unexplained, verified stack gas rad monitor Hi-Hi Alarm;
-or-
Unexplained, verified Hi-Hi Alarm on any process rad monitor;
-or-
4. Main Steam Isolation Valve Closure due to MSL High Radiation.

Basis

These EAL's are intended to address indications of irradiated fuel cladding perforation and the subsequent release of fission product gases. These conditions are precursors of more serious cladding degradation. The use of alarmed functions provides warning to the operator of potential fuel damage. The off-gas value of 3,330 mR/hr is derived from the use of the conversion factor of "150". The Nureg 0654 limit is 500,000 uci/sec. The conversion factor is normally less than the "150" value, however this provides the appropriate conservatism when assessing the status of the fuel.

Classification

Alert

EAL's

Loss of Fuel Cladding

1. Offgas of greater than 10,000 mR/hr:
-or-
2. Reactor coolant Iodine activity of greater than or equal to 300 uCi/cc, DEI.

Basis

These EAL's are indicative of a breach of the fuel clad fission product boundary. This condition should be considered a "loss of 1 out of 3 fission product barriers" and requires classification as an alert.

Classification

Site Area Emergency

EAL's

Significant (20%) Fuel Cladding failure indicated by:

1. Containment Hi-Range Radiation Monitoring System (CHRRMS) reading greater than or equal to 2.0E+4 R/Hr.
-or-
2. Containment Hydrogen greater than or equal to 10%.

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APPENDIX 2

Category I "Fuel Conditions"

Basis

The radiation reading or hydrogen concentration inside the primary containment are expected to be due to a degraded core condition and a breach of the RCS boundary. This condition is indicative of a "loss of 2 out of 3 fission product barriers". The use of 10% H₂ concentration in this case has no bearing on the impact to the containment, but rather is indicative of the amount of fuel clad damage by the metal-water reaction.

Title

CLASSIFICATION OF EMERGENCY CONDITIONS

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APPENDIX 2

Category J "Radiological Releases"

(J)
**Condition
Applicability**

All Plant Conditions.**Basis*****This covers any event which leads to a rad release regardless of plant condition.***

Classifications

Unusual Event

EAL's

1. Noble Gas: Stack Monitor greater than CPS_{ce}
-or-
 2. Iodine: Release rate greater than 4 uCi/sec
-or-
 3. 10 CFR 20, Appendix B, Table 2, Column 2, limits exceeded in discharge canal at Rt. 9 Bridge
-or-
- Off-site Dose:
4. A valid integrated dose at or beyond the Site Boundary of greater than or equal to 0.1 mRem total whole body (TEDE) but less than 10 mRem total whole body dose (TEDE) exists as indicated by: dose projections or field team readings
-or-
 5. A valid integrated dose at or beyond the Site Boundary of greater than or equal to 0.5 mRem (CDE) adult thyroid but less than 50 mRem (CDE) adult thyroid dose exists as indicated by: dose projections or field team readings.

Basis

Unplanned releases in excess of the site technical specifications that continue for 5 minutes or longer represent a potential degradation in the level of safety. The final integrated dose is not the primary concern here, it is the degradation in plant control implied by the fact that the release was not isolated.

The term "Unplanned", as used in this context, includes any release for which a radioactive discharge permit was not prepared, or a release that exceeds the conditions (e.g., minimum dilution flow, maximum discharge flow, alarm setpoints, etc.) on the applicable permit.

Offsite Dose due to plant releases (readings above background) can be determined from field measurement readings or dose projections. Monitor indications are calculated on the basis of the methodology of the Offsite Dose Calculation Manual (ODCM), which demonstrates compliance with 10CFR20 and/or 10CFR50 Appendix I requirements.

In EAL 4, the 0.1 mR value is based on a proration of two times the 500 mR/yr for an individual member of the public stated in the Oyster Creek Off-Site Dose Calculation Manual, rounded down to 0.1 mRem per event.

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APPENDIX 2

Category J "Radiological Releases"

Classification Alert

EAL's

1. Noble Gas: Stack Monitor greater than CPS,
-or-
2. Iodine: Release rate greater than 40 uCi/sec
-or-
3. 10 CFR 20, Appendix B, Table 2, Column 2, Limits exceeded by a factor of 10 in discharge canal at Rt. 9 Bridge.
-or-

Offsite Dose:

4. A valid integrated dose at or beyond the Site Boundary of greater than or equal to 10 mRem but less than 50 mRem total whole body dose (TEDE) exists as indicated by: dose projections or field team readings.
-or-
5. A valid integrated dose at or beyond the Site Boundary of greater than or equal to 50 mRem but less than 250 mRem (CDE) adult thyroid dose exists as indicated by: dose projections or field team readings.

Basis

This event escalates from the Unusual Event by escalating the magnitude of the release by a factor of 10. In EAL 3, the 10.0 mR/hr value is based on a proration of 200 times the 500 mR/Yr limit for an individual member of the public stated in the Oyster Creek Off-Site Dose Calculation Manual, rounded down to 10.0 mR/hr. EALs' at this level or higher are entry conditions to Procedure EMG-3200.12.

Classification Site Area Emergency

EAL's

Offsite Dose:

4. A valid integrated dose at or beyond the Site Boundary of greater than or equal to 50 mRem but less than 1000 mRem (1 Rem) total whole body dose (TEDE) exists as indicated by: dose projections or field team readings.
-or-
5. A valid integrated dose at or beyond the Site Boundary of greater than or equal to 250 mRem but less 5000 mRem (5 Rem) (CDE) adult thyroid exists as indicated by: dose projections or field team readings.

Basis

The 50 mRem is based on the corporate philosophy for classification relative to the EPA's protective action guidelines, where 5% of the lower limit shall be the trigger value for a Site Area Emergency. The 250 mRem child thyroid dose is in consideration of the 1:5 ratio established by the PAG's for total whole body dose (TEDE) to (CDE) adult thyroid relationship.

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APPENDIX 2

Category J "Radiological Releases"

Classification General Emergency

EAL's

Offsite Dose:

4. A valid integrated dose at or beyond the Site Boundary of greater than or equal to 1000 mRem (1 Rem) total whole body dose (TEDE) exists as indicated by: dose projections or field team readings.
- or-
5. A valid integrated dose at or beyond the Site Boundary of greater than or equal to 5000 mRem (5 Rem) (CDE) adult thyroid exists as indicated by: dose projections or field team readings.

Basis

The 1000 mRem total whole body (TEDE) and the 5000 mRem (CDE) adult thyroid integrated dose are based on the proposed EPA protective action guidance which indicates that public protective actions are warranted if the dose exceeds 1 rem total whole body (TEDE) or 5 rem (CDE) adult thyroid. This is consistent with the emergency class description for a General Emergency and the Nureg's initiating conditions. Actual meteorology (including forecasts) should be used.

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APPENDIX 2

Category K "Contamination/Rad Material Control"

(K)
Condition
Applicability

All Plant Conditions.

Basis

This covers any event which leads to a rad material release regardless of plant condition.

Classification Unusual Event

EAL

Independent Spent fuel Storage Installation

1. 2R/hr at the face of a SF Module

-or-

1R/hr at 1 foot from a damaged Module in the Independent Spent Fuel Storage Installation.

Basis

This event is intended to apply to a degraded plant condition that represents a potential for increased doses to the plant staff. Classification as an Unusual Event is warranted as a precursor to a more serious event.

The 2R/hr value was selected by the Site to provide positive indication of a potential problem within the cask. This is a value which is higher than expected normal and low enough to minimize off-site impact. The 1R/hr reading on a damaged Module indicates the damage may be of sufficient magnitude to not control the release of radioactive material.

Classification Alert

EAL

1. Verified mechanical damage to irradiated fuel which results in a Hi alarm on any of the following refuel floor ARM's:

B-9

C-9

C-10

-or-

2. Any incident involving rad material which results in unexpected increase of in-plant rad levels or airborne contamination by a factor of 1000.

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APPENDIX 2

Category K "Contamination/Rad Material Control"

Basis	<p>EAL #1 is intended to meet the Nureg concern for a fuel damage accident which results in a release of radioactivity to the secondary containment. The damage addressed by this EAL is expected from bumping, dropping or otherwise mishandling of a fuel bundle during fuel handling evolutions. In the case of both EAL #1 and #2 not all area radiation monitors are installed for the purposes of providing general habitability information in normal and emergency conditions. Some area monitors are in effect process monitors which provide the health physics staff a quick indication of routine but radical changes in radiological conditions. For example, an area radiation monitor in the vicinity of a radwaste filtration system backwash filter may routinely increase by a factor of several hundred times when the system is in use. This information is important real time information for health physics in providing work permits but is not an indication of an emergency. Thus, this EAL addresses an event of significance to the protection of the public, i.e., failure of the fuel cladding resulting in high RCS activity with high area radiation monitor readings in the vicinity of the RCS, or radiation levels or airborne contamination which indicates a severe degradation in the control of radioactive materials.</p>
Classification	Site Area Emergency
EAL	Fuel Handling
	1. Major damage to spent fuel resulting in uncontrolled release of radioactive material, or uncontrollable decrease in fuel pool water level below top of spent fuel.
Basis	<p>This EAL is an escalation of the Alert condition caused by mechanical damage or overheating of multiple fuel bundles. Readings of approximately 10 times the set points of ARMS's B-9, C-9 or C10 is indicative of "Major Damage". This EAL is intended to address irradiated spent fuel requiring water coverage. It is not intended to address spent fuel which is licensed for dry storage or other incidents not related to irradiated fuel storage. The concern addressed by this condition is a release of gap activity from damaged fuel rods or excessive heating of the fuel from decay heat leading to clad perforation. This release is of sufficient magnitude to be detected by the ventilation monitoring system. Since a release is expected from this condition off-site dose assessment should be performed immediately.</p>

Title

CLASSIFICATION OF EMERGENCY CONDITIONS

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APPENDIX 2

Category L "Control Room Indications"

(L)

**Condition
Applicability****Power Operations or All Plant Conditions as Listed in EAL.****Basis****Events which apply only to Power Operations can only occur during power operations as worded. Events which apply to all Plant Conditions could occur during any plant condition.**

Classification

Unusual Event

EAL

Loss of Indications

1. Loss of indication or alarm on process monitored systems or effluent streams in Control Room, causing Rx to be shutdown.

-or-

2. Loss of any means of plant assessment, causing Rx to be shutdown.

-or-

3. Valid unplanned loss of all communications capability such that no means of notification to off-site agencies exist as determined by the GSS/ED.

Basis

The loss of assessment capability sufficient to necessitate a plant shutdown due to a tech spec condition or as a prudent measure should be considered sufficient cause for declaration of an Unusual Event since this may be a precursor to a more serious condition as well as a loss of the ability to monitor plant conditions. The process monitored systems addressed in this category include - Offgas System, Turbine Bldg. - Rx. Bldg. Ventilation Systems, RAGEMS System I & II or other radiological monitored release points to the environment. The loss of all communication capability prevent notification of offsite agencies. This loss is meant to include loss of the Meridian phone system, the Dedicated Telephone lines, the direct NJ Bell lines which is in the TSC, CR and OSC, the microwave lines and the radio channels between the site and the outside world. If notification can be accomplished via any of the above systems then conditions of the EAL are not met. On the other hand if conditions are met it will not be possible to make this notification from the site. It would be prudent to send a driver to a offsite location to attempt to complete the notification.

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APPENDIX 2

Category L "Control Room Indications"

Classification Alert

EAL

Loss of Indications

1. Loss of 3 or more Control Room Annunciator Panels during power operations for greater than 5 minutes. No backup alarm information capability available (SAR and PCS).

-or-

2. Evacuation of Control Room anticipated or required with control of shutdown systems established from local stations within 15 minutes.

Basis

A major failure of a significant portion of indications severely hampers assessment of off-normal conditions. The use of 3 or more panels is intended to provide a point of reference, however, if the condition is less than 3 panels, judgement should be applied to determine the safety significance of the loss considering specific information. The backup Alarm information does not have to be located in the C.R. however it should be readily available. EAL #2 applies to those circumstances where the Control Room is unavailable for plant operation regardless of cause. Plant operations conducted from areas outside the Control Room reduce the operating staff's ability to assess plant conditions and warrants declaration of an Alert.

Classification

Site Area Emergency

EAL

Loss of Indications

1. Loss of 3 or more Control Room Annunciator Panels during power operations for greater than 5 minutes. No backup alarm information capability available (SAR and PCS).

-and-

A plant transient condition exist which causes a change in Rx power of more than 10% (APRM).

-or-

2. Evacuation of Control Room and control of shutdown systems not established from local stations within 15 minutes.

Basis

These EAL's are escalations of the Alert classifications where a plant transient, including conduct of a shutdown, places the operating condition in a less stable state with the additional burden of reduced assessment capabilities.

Title

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APPENDIX 2

Category M "Electrical Power"

<i>(M)</i>	
Condition Applicability	<i>Power Operations, Hot Shutdown or All Plant Conditions as Listed in EAL.</i>
Basis	<p><i>In Tech Specs 3.7, electrical power requirements are for Power Operations or Hot Shutdown on only. Events 1. and 2. for each level of emergency apply for Power Operation or Hot Shutdown.</i></p> <p><i>Loss of power when Cold Shutdown, Refuel or Defuel will not cause any immediate release problem which is not covered by other EALs.</i></p> <p><i>The reactor temperature will rise with loss of cooling and at 212OF events 1. or 2. will become applicable because Cold Shutdown was not maintained.</i></p> <p><i>If in Cold S/D, Refuel or Defueled condition, the level of emergency is reduced to a more appropriate response as listed for events 3. and 4. If temperatures increase to > 212 °F the levels in this category revert back to the higher level of response.</i></p>
Classification	Unusual Event
EAL's	<p>Loss of Power</p> <p>1. Loss of power to 4160V buses 1A and 1B for greater than one hour;</p> <p style="text-align: center;">-or-</p> <p>2. Loss of both diesel generator capabilities for greater than one hour.</p>
Basis	<p>Prolonged loss of AC power reduces required redundancy and potentially degrades the level of safety of the plant by rendering the plant more vulnerable to a complete Loss of AC Power (Station Blackout). The intent of these EAL's is to identify electrical power concerns which are outside the Tech Spec LCO's on Aux. Elect. Power.</p>

Title

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APPENDIX 2

Category M "Electrical Power"

Classification Alert

EAL's

Loss of Power

1. Loss of power to 4160V buses 1A and 1B for greater than 60 seconds but less than 15 minutes and:
 - loss of both diesel generator capabilities;
 - or-
2. Loss of all plant vital DC power; for greater than 60 seconds but less than 15 minutes.

Basis

Loss of backup AC power or vital DC power compromises all plant safety systems requiring electric power including those systems needed for residual heat removal, ECCS and spent fuel heat removal. Intermittent power interruptions lasting less than 15 minutes should be indicative of a potential complete power failure which would escalate this event to the Site Area Emergency.

Classification

Site Area Emergency

EAL's

Loss of Power

1. Loss of power to 4160V busses 1A and 1B exceeds 15 minutes and:
 - loss of both diesel generator capabilities;
 - or-
2. Loss of all plant vital DC power for more than 15 minutes.

Basis

A prolonged loss of power condition will compromise all plant safety systems. The systems necessary for heat removal from the Reactor and containment will be adversely affected leading to core uncovering and loss of containment integrity. This event will escalate to a General Emergency through the loss of fission product barriers.

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APPENDIX 2

Category N "Plant Equipment/Engineered Safety Features or Fire Protection System"

<i>(N)</i> Condition Applicability	Power Operations, Hot Shutdown for SAE and GE
Basis	Power Operations, Hot Shutdown, Cold Shutdown and Refuel for UE and Alert
Basis	For the SAE and GE apply when coolant temperature is > 212OF. For the Alert all conditions with fuel in the vessel apply due to the interpretation of NRC Nureg 0654 example 10 for Alert.
Classification	Unusual Event
EAL	Failure to comply with Tech. Spec. L.C.O.'s 1. Plant is not brought to required operating mode within Technical Specification LCO Action Statement Time.
Basis	This EAL is intended to address the loss of Tech. Spec. required equipment, systems and/or condition. Although exceeding a Tech. Spec. LCO is not an indication that the safety of the plant is challenged when coupled with the inability to meet the LCO Action Statement within the required time does indicate a substantial challenge to plant safety. This condition could lead to the inability to reach and maintain Hot and/or Cold Shutdown and thus would escalate to an ALERT, SAE or GE. This EAL should be declared as soon as it is determined that the plant cannot be brought to the required mode within the time limit.
Classification	Alert
EAL	Loss of Cold Shutdown Equipment 1. Complete loss of all ability to achieve and maintain cold shutdown.

Title

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APPENDIX 2

Category N "Plant Equipment/Engineered Safety Features"

Basis If the ability is lost at any time to achieve or maintain cold shutdown, an Alert level of emergency is warranted by interpretation of NUREG 0654 example 10. This means that if there is no way to achieve or maintain cold shutdown regardless of the methods or systems used, an Alert is required. Escalation to Site Area Emergency or General Emergency would be via radiological release or fission product barrier categories.

Classification Site Area Emergency

EAL Loss of Hot Shutdown Equipment

1. Complete loss of any function needed for plant hot shutdown, (e.g. Rx Protection System or CRD System) when hot shutdown is required.

Basis This condition refers to the capability to bring the reactor from full power to a controlled hot shutdown condition. To accomplish this operation a minimum of safety related equipment would be necessary. The selected equipment should be capable of maintaining the following parameters within acceptable limits:

- Rx Power (Reactivity Control - CRD/SBLC/RPS)
- Rx Pressure (EMRV's, Iso Cond, Bypass Valves)
- RPV Inventory (Feed/Condensate, CRD, Core Spray)
- Decay Heat Removal (Mn Condenser, Suppression Pool, Ultimate Heat Sink)

It is appropriate to utilize any means available to control the identified parameters, however the control should be a direct result of intended actions. There are numerous alternatives to controlling each of the identified parameters, the intent is that the inability to control any one of these in a hot, pressurized condition can lead to significant consequences.

Classification General Emergency

EAL Loss of Decay Heat Removal

1. Shutdown occurs, but all decay heat removal capability is lost. Significant cladding failure or fuel melt could occur in 10 hours with subsequent containment failure.

Basis This EAL assumes a Rx S/D has occurred however, the lack of heat removal capability such as possibly an extended station blackout condition could lead to fuel clad overheating, energy release to the containment followed by its failure providing a release path to the environment. This condition is expected to be slow in development and thus protective actions adequately addressed.

Title

CLASSIFICATION OF EMERGENCY CONDITIONS

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APPENDIX 2

Categories O & P "Natural and Man-made Hazards"

*(O & P)**Condition**Applicability**All Plant Conditions for UE and Alert**Power Operations, Hot Shutdown for SAE**Basis**Events listed under UE and Alert could affect plant safety and lead to offsite release warranting an UE or Alert level of emergency regardless of plant condition.**Events listed under SAE could only warrant an SAE level of emergency if the plant is Hot or Critical. This is because there is a driving force available in the reactor vessel which could cause a more significant potential for offsite rad release under these conditions.*

Classification

Unusual Event

EAL's

Natural Phenomenon

1. Verified earthquake felt in plant.
-or-
2. Intake canal water level \leq -2.0 feet as measured by the staff gauge.
-or-
3. Intake water level 4.5 feet above mean sea level (1.5 feet below intake structure lower deck).
-or-
4. Sustained high winds greater than 74 mph, as indicated on wind speed recorder.
-or-
5. The National Weather Service is forecasting sustained winds in excess of 74 mph for the site within 4 hours.
-or-
6. The Oyster Creek Site is included in a tornado warning.

Man-made Hazards

1. Onsite aircraft crash outside the protected area fence AND NOT impacting permanent plant structures.
-or-
2. Unanticipated explosion detected near the site OR onsite.
-or-
3. Near the site or onsite TOXIC GAS, FLAMMABLE GAS or LIQUID release which could affect the habitability required for normal plant operability.
-or-
4. Turbine rotor component (i.e., blades, wheels, shroud, bearings or other rotating component) failure causing a Rx trip.

Title

CLASSIFICATION OF EMERGENCY CONDITIONS

Revision No.

12

APPENDIX 2

Categories O & P "Natural and Man-made Hazards"

Natural Phenomenon Cat. O

Basis

These two categories deal with those destructive hazards which could lead to plant damage. The condition at this level should be considered from an industrial hazards perspective. The problems created by these hazards are expected to create personnel safety concerns. If the extent of damage is sufficient to interrupt plant operations or affect safety systems adversely these conditions will escalate to an Alert or Site Area Emergency class.

EAL #1 is based on the Nureg criteria - earthquake felt in plant, and should be verified by the Lamont-Doherty Geological Observatory Business Hours 914-359-2900, After Hours 914-365-2487, through the Environmental Controls Department if possible. The primary concern is to ensure increased awareness on the part of the plant staff and outside agencies in the event conditions worsen. It is expected that any damage associated with an earthquake will be visible upon inspection. This condition may escalate or terminate based on plant damage assessment.

EAL #2 is based on the Nureg concern for low water level related to the ultimate heat sink. A situation indicative of a potential loss of the suction to the circulating water pumps, emergency service water pumps and service water pumps is sufficient reason to make this declaration. This is not intended to address situations where the travelling screens become clogged and can be remedied immediately. This condition can be caused by strong winds from a westerly direction or by a hurricane in the vicinity of OCNCS. Other causes are possible, however, they are not addressed by the updated FSAR directly. Nureg guidance suggest that the 50 yr. low water level be used for this EAL. 50 yr. data is not available for OCNCS but an engineering assessment of the ESW pump operability as a function of intake level (memo 5310-90-005) identified -2.0' MSL to be the most appropriate level for the U.E. Class.

EAL #3 addresses high water level conditions in the intake canal. The primary concern is a potential loss of plant cooling capability through the loss of pump motors at the intake. At the designated levels the motors are not in immediate jeopardy, however, additional caution and concern should be exercised due to the inability to predict the course of events initiated by environmental changes in weather. This condition is expected to be initiated by hurricane force winds. Unusually high tides are not expected to cause declaration of this condition unless it is accompanied by additional concerns such as high winds, earthquake or other phenomenon.

Title

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12

APPENDIX 2

Categories O & P "Natural and Man-made Hazards"

Basis (con't)

Natural Phenomenon Cat. O

EAL #4, #5, and #6 address high wind conditions where physical damage to plant property may exist due to the weather. This damage may be caused by direct impact of high winds or as the result of high winds, because of the unknown extent of such damage the EAL intends to increase awareness on the part of the staff.

Man-made Hazards Cat. P

EAL #1 addresses the Nureg concern of aircraft falling from the sky, causing damage to the plant which the extent of may not be fully appreciated without close inspection. The intent is to increase the awareness of the plant staff.

EAL #2 addresses the potential for damage caused by an explosion from any source. The amount of damage must be assessed to determine if this condition should escalate, however, the intent here is to declare the event based on the possibility of increasing damage from an unknown source.

NOTE

Explosions can cause fires, therefore, a review of Category "Q" Fires EAL's should be considered when declaring the appropriate EAL.

As used here, an explosion is a rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment, that potentially imparts significant energy to near-by structures and materials. No attempt is made in this EAL to assess the actual magnitude of the damage. The occurrence of the explosion with reports of evidence of damage (e.g., deformation, scorching) is sufficient for declaration.

EAL #3 addresses releases of substances that inhibit normal day-to-day operation of the plant. For instance, gas releases which necessitate evacuation of personnel from a particular area or require the use of respiratory equipment to enter the area because of the release and would not be required otherwise. This condition would escalate to an alert if this release affected operations of the plant.

EAL #4 is intended to meet the Nureg concern for a major plant component failure causing a reactor trip.

Title

CLASSIFICATION OF EMERGENCY CONDITIONS

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12

APPENDIX 2

Categories O & P "Natural and Man-made Hazards"

Classification Alert

EAL's Natural Phenomenon

1. Earthquake affecting plant operations.
- or-
2. Intake canal water level \leq -2.5 feet, as measured by the staff gauge.
- or-
3. Intake water level at the intake structure lower deck.
- or-
4. Sustained hurricane force winds of greater than 95 mph, as indicated on wind speed recorder.
- or-
5. Any tornado striking the facility.

Man-made Hazards

1. Aircraft crash OR other missile impact within the protected area OR onto any permanent plant structure.
- or-
2. Known explosion damage to any permanent plant structure.
- or-
3. Release of TOXIC or FLAMMABLE GAS into the plant which affects the safe operation of the plant as determined by the Shift Manager/Emergency Director.
- or-
4. Turbine failure resulting in casing penetration.

Basis

An Operational Basis Earthquake (0.11G) may cause damage to some portions of the site but should not affect the ability of safety functions to operate. Method of detection is validated by a reliable source (e.g. Lamont-Doherty Geological Observatory: (914)359-2900). The OBE is as determined from 10CFR100. The EAL's addressing intake water level both high and low are escalations of a worsening condition cited in the U.E. class. The level's address the Nureg concern for approaching design conditions where the heat sink's effectiveness may be reduced and subsequently lost. EAL #5 is based on the assumption that a tornado striking (touching down) the facility (within the protected area boundary) may have potentially damaged plant structures containing function or systems required for safe shutdown of the plant. If such damage is confirmed, the event may be escalated to a Site Area Emergency.

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APPENDIX 2

Categories O & P "Natural and Man-made Hazards"

EAL's (con't)

Man-made Hazards

Category P is intended to address such items as plane or helicopter crash or barge crash that may potentially damage plant structures containing functions and systems required for safe shutdown of the plant. If the incident is confirmed to affect a plant vital area, the event may be escalated to Site Area Emergency.

With regard to explosions, only those explosions of sufficient force to damage permanent structures or equipment should be considered. As used here, an explosion is a rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment, that potentially imparts significant energy to near-by structures and materials.

NOTE

Explosions can cause fires, therefore, a review of Category "Q" Fires EAL's should be considered when declaring the appropriate EAL.

The release of toxic gases affecting the safe operation of the plant is intended to address those situations where routine habitability is restricted or routine evolutions are modified to compensate for a "life threatening" atmosphere.

Classification

Site Area Emergency

EAL

Natural Phenomenon

1. Earthquake affecting systems required for shutdown.
-or-
2. Intake canal water level \leq -3.0 feet, as measured by the staff gauge.
-or-
3. Intake water level greater than 8 feet above sea level. (2.0 feet above intake structure lower deck), and not in cold shutdown.
-or-
4. Sustained wind speed in excess of 100 mph indicated in the Control Room.

Title

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APPENDIX 2

Categories O & P "Natural and Man-made Hazards"

EAL's (con't)

Man-made Hazards

1. Aircraft crash which affects vital structures by impact OR by fire.
-or-
2. Explosion OR missile impact which causes severe damage to safe shutdown equipment.
-or-
3. Entry of TOXIC or FLAMMABLE GAS into vital area which affects the operation of safe shutdown equipment.

Basis

The EAL dealing with earthquakes is based on the FSAR's Safe Shutdown Earthquake (SSE) value of 0.22 G. Seismic events of this magnitude can cause widespread damage to safety functions. These EAL's are escalated events from the Alert Classification and represent significant damage to the plants ability to complete a "safe shutdown". These conditions are of significant concern if the plant is not in cold shutdown. If the plant is in cold shutdown the possibility of radioactive releases from incidental damage is reduced as well as being in a very stable configuration. A further degradation of the events is expected to cause slow escalation of jeopardy to the plant and may be handled with additional assistance relatively easily.

With regard to explosions, only those explosions of sufficient force to damage permanent structures or equipment required for safe shutdown, such that it cannot perform its intended function, should be considered.

As used here, an explosion is a rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment, that potentially imparts significant energy to near-by structures and materials.

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APPENDIX 2

Category Q "Fire"

(Q)
**Condition
Applicability**

All plant conditions

Basis

This applies to all conditions - exceptions are inherent within current wording.

Classification

Unusual Event

EAL

Fire

1. Valid fire inside the Protected Area which CANNOT be controlled by the fire brigade within 10 minutes from the time of verification.

Basis

This EAL is written to address any fire occurring inside the protected area. The 10 minute time is intended to start when the fire has been verified to be actual by two independent means.
A fire of this magnitude implies additional assistance may be required and the extent of damage will not be readily apparent. Increased awareness and concern should be demonstrated by the staff in preparation for possible degrading conditions.
Fires arising outside the protected area will be handled by off-site authorities and do not pose a significant threat to the plant. If such a threat were to occur the GSS/ED should use his judgement to ensure the safety of the plant and personnel.

NOTE

Fires can be caused by explosions, therefore, a review of Category "P" Man Made Hazards should be considered when declaring the appropriate EAL.

Classification

Alert

EAL

Fire

1. Fire which potentially affects the operability of a Safety System and the Plant is in a transient conditions requiring the use of the System.

Title

CLASSIFICATION OF EMERGENCY CONDITIONS

Revision No.

12

APPENDIX 2

Category Q "Fire"

Basis

The intent of this EAL is to address those circumstances where the operability of a safety system is questionable due to a fire. This would be evidenced by such things as burn marks on equipment, insulation disfigured or other indications which would warrant closer scrutiny of the components during plant operations requiring the use of such system, subsystem, train or component.

NOTE

Fires can be caused by explosions, therefore, a review of Category "P" Man Made Hazards should be considered when declaring the appropriate EAL.

Classification

Site Area Emergency

EAL

Fire

1. Fire which renders a Safety System completely inoperable and that system is needed to function for accident control.

Basis

This EAL is intended to encompass those situations where a safety system, or subsystem, is unable to perform it's intended function as a direct result of a fire and plant conditions require the use of that systems function. The emphasis is placed on the significance of a fire having such severity to disable a safety system. Additional damage may have been done; however, this will not be immediately evident. As a conservative measure a Site Area Emergency is prudent given that accident mitigation is also taking place.

NOTE

Fires can be caused by explosions, therefore, a review of Category "P" Man Made Hazards should be considered when declaring the appropriate EAL.

Title

CLASSIFICATION OF EMERGENCY CONDITIONS

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12

APPENDIX 2

Category R "Security/Sabotage"

(R)
Condition
Applicability

All plant conditions

Basis

Events could occur during all plant conditions.

Classification

Unusual Event, Alert, Site Area and General Emergency

EAL's

U.E. - Security Threat

1. Shift Manager/Emergency Director determination based on advice from the Site Protection Supervisor that a security threat, attempted entry, or attempted sabotage of the site (owner controlled area) condition exists.

-or-

2. Any attempted act of sabotage which is deemed legitimate in the judgement of the Shift Manager/Emergency Director, and affects the operation of the plant.

A. - Security Threat

1. Shift Manager/Emergency Director determination based on advice from the Site Protection Supervisor that the compromise is onsite, but no penetration of the protected area has occurred.

-or-

2. Any act of sabotage which results in an actual or potential substantial degradation of the level of safety of the plant, as judged by the Shift Manager/Emergency Director.

S.A.E. - Security Threat

1. Shift Manager/Emergency Director determination based on advice from the Site Protection Supervisor that security of the plant (vital area) is threatened by unauthorized (forcible) entry of the facility (protected area).

-or-

2. Any act of sabotage which results in actual or likely major failures of plant functions needed for the protection of the public, as judged by the Shift Manager/Emergency Director.

G.E. Security Threat

1. Shift Manager/Emergency Director determination based on advice from the Site Protection Supervisor that the loss of physical security control of the plant (vital areas) has occurred.

-or-

2. Any act of sabotage which results in imminent significant cladding failure or fuel melting with the potential for loss of containment integrity or the potential for the release of significant amounts of radioactivity in a short time, as judged by the Shift Manager/Emergency Director.

Title

CLASSIFICATION OF EMERGENCY CONDITIONS

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12

APPENDIX 2

Category R "Security/Sabotage"

Basis

These EAL's are intended to be gradient conditions of threats directed at OCGS. The U.E. class deals with confirmed threats that are determined to be station-specific and imminent, or conditions limited to outside the owner controlled area or vandalism of the plant which results in off-normal component condition (i.e., valve mispositioned, setpoint changes) where there is no indication of major damage (i.e., wiring cut, valves or piping cut, or disassembled).

The Alert class is an escalation of the conditions for the U.E. This level deals with situations between the Owner Controlled Area and the Protected Area or acts of vandalism which causes a major plant component to malfunction or otherwise not perform its intended function in the expected manner.

The S.A.E. class is intended to address entry into the Protected Area by a hostile force. Vital Areas are threatened in this circumstance. Acts of vandalism consistent with this classification would consist of the loss of a safety system function (i.e., complete loss of all Core Spray, or Containment Spray).

The General Emergency class addresses entry into Vital Areas. Damage to major plant equipment which indicates the ability to ensure adequate core cooling and containment integrity may not be possible due to acts by a hostile force should be considered sufficient reason for a G.E. declaration.

AmerGen <small>An Exelon/British Energy Company</small>	OYSTER CREEK EMERGENCY PREPAREDNESS IMPLEMENTING PROCEDURE	Number EPIP-OC-.01
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APPENDIX 2

Category S "Fission Product Barriers"

(S)
Condition
Applicability

Power Operations, Hot Shutdown

Basis

The definitions of the other conditions mean that 2 of the 3 barriers are not required to be intact. The only barrier required to be intact for these conditions is the cladding. (i.e. RCS is vented and Primary containment is not required.)

Regardless of the plant condition, consideration should be given in declaring a General Emergency for a loss of cladding accident which has Rad level increases as specified in EAL category J (Radiological Releases). If dose monitoring equipment or dose assessment capabilities are unavailable and cladding has failed with no RCS or Containment a General Emergency is warranted during any plant condition.

Classification

General Emergency

EAL

Loss of 2 of 3 fission product barrier's with the potential loss of the third i.e. loss of coolant accident, failure of ECCS, Core Melt Probable and Loss of containment imminent.

Basis

The fission product barriers addressed by this EAL are:

- Fuel Cladding
- Rx Coolant System Boundary
- Primary Containment

The concern is that a significant radioactive release to the environment is imminent during unstable plant conditions. The intent is to make the G.E. declaration because of plant conditions which are leading to a release of known or unknown magnitude. Releases during accident conditions are expected to require protective actions for the general public. Declaration of this class prior to such releases improves the effectiveness and completeness of appropriate protective actions. This EAL is not dependent on a dose assessment or projection, it is intended to be applied based on the status of fission product barriers and the potential for a release to the environment with a degraded core. This EAL should not be applied during situations where primary containment is not enforced unless "a degraded core condition" which could lead to a significant release is of primary concern. Exhibit 2 provides guidelines for assessing fission product barriers status. This is not all inclusive and does not address such things as an "interfacing LOCA" where the containment is effectively bypassed, however when assessing each barrier consideration should be given to the barriers ability to perform its intended function under the circumstances presented.

AmerGen <small>An Exelon/British Energy Company</small>	OYSTER CREEK EMERGENCY PREPAREDNESS IMPLEMENTING PROCEDURE	Number EPIP-OC-.01
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APPENDIX 2

Category T "Emergency Director's Judgement"

(T)
**Condition
Applicability**

All Plant Conditions.

Basis

Judgment for events not covered specifically in the EALs could apply to any plant condition.

Classification

Unusual Event, Alert, Site Area Emergency

EAL's

Unusual Event

Whenever plant conditions are in progress or have occurred which may indicate a potential degradation of the level of safety of the plant, as judged by the Shift Supervisor/Emergency Director.

NOTE

In exercising the judgement as to the need for declaring an Unusual Event, uncertainty concerning the Safety Status of the plant, the length of time the uncertainty exists and the prospects for resolution of ambiguities in a reasonable time period is sufficient basis for declaring an Unusual Event.

Alert

Whenever plant conditions are in progress or have occurred which may involve an actual or potential substantial degradation of the level of safety of the plant, as judged by the Shift Supervisor/Emergency Director.

NOTE

In exercising the judgement as to the need for declaring an Alert, uncertainty concerning the safety status of the plant, the length of time the uncertainty exists the prospects for resolution of ambiguities beyond a reasonable time period and the potential of the level of safety of the plant is sufficient basis for declaring an Alert.

Site Area Emergency

Whenever plant conditions are in progress or have occurred which may involve actual or likely major failures of plant functions needed for the protection of the public, as judged by the Shift Supervisor/Emergency Director.

Title

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APPENDIX 2

Category T "Emergency Director's Judgement"

NOTE

In exercising the judgement as to the need for declaring a Site Area Emergency, uncertainty concerning the status of the plant functions needed for protection of the public, the length of time the uncertainty exists, the prospects for resolution of ambiguities beyond a reasonable time and the potential degradation of the plant functions needed for protection of the public is sufficient basis for declaring a Site Area Emergency.

Basis

These EAL's are intended to address unanticipated conditions not addressed explicitly elsewhere but that warrant declaration of an emergency class because conditions exist which are believed by the Emergency Director to fall under one of the above classes. The Unusual Event level implies that Plant Safety is jeopardized, however, operation may continue with heightened awareness (e.g., outside Tech. Spec. LCO's). The Alert level implies that Plant Safety has been significantly impaired, (e.g., Operations beyond FSAR design consideration). The Site Area Emergency level concern is for the loss of the ability to ensure the protection of the public due to a lack of confidence in plant functions (i.e., containment integrity, adequate Core Cooling, other Fission Product barriers). There is no General Emergency EAL for this category since the required actions directly impact the public. This is to ensure that if declared there is no doubt a G.E. condition exist (i.e., core melt sequence with a loss of containment integrity imminent).

Title

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EXHIBIT 1

Cross-Reference Index

Unusual Events

Nureg-0654 Initiating Conditions	EPIP-OC-.01 Appendix 1
1.	A-1, E-1
2.	J-1, J-2, J-3
3.a	I-1, I-3
3.b	I-2, I-4
3.c	N/A BWR
4.	*
5.	A-1, D-1, E-1, H-1, H-2
6.	D-1, E-1, F-1, H-1
7.	M-1, M-2
8.	N-1 *
9.	N-1 *
10.	Q-1
11.	L-1, L-2, L-3 *
12.	R-1, R-2
13.	O-1 through 5
14.	P-1 through 5
15.	T
16.	*
17.	N/A BWR

* Coverage deleted/changed based on NRC's Branch Position of Acceptable Deviations to Appendix 1 to NUREG-0654/FEMA-REP-1.

Title

CLASSIFICATION OF EMERGENCY CONDITIONS

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EXHIBIT 1
(continued)

Cross-Reference Index

Nureg-0654 Initiating Conditions	<u>Alert</u>	EPIP-OC-.01 Appendix 1
1a.		I-1
1b.		I-2
1c.		N/A BWR
2.		N/A BWR
3.		N/A BWR
4.		H-1a, H-1b
5.		H-1c, A-1, H-2
6.		K-2
7.		M-1
8.		M-2
9.		I-1, I-2
10.		N-1
11.		N-1, C-1
12.		K-1
13.		Q-1
14.		L-1
15.		J-1 through 5
16.		R-1 & 2
17.		O-1 through 5
18.		P-1 through 4
19.		T
20.		L-2

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EXHIBIT 1
(continued)

Cross-Reference Index

Site Area Emergency

Nureg-0654 Initiating Conditions	EPIP-OC-.01 Appendix 1
1.	A-1, A-2
2.	I-1 & 2
3.	N/A BWR
4.	H-1a & b
5.	N/A BWR
6.	M-1
7.	M-2
8.	N-1
9.	C-1, N-1
10.	K-1
11.	Q-1
12.	L-1
13a, b, c	J-1 & 2
14.	R-1 & 2
15.	O-1 through 4
16.	P-1 through 3
17.	T
18.	L-2

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EXHIBIT 1
(continued)

Cross-Reference Index

General EmergencyNureg-0654
Initiating ConditionsEPIP-OC-.01
Appendix 1

1a.	J-1 & 2
1b.	A-1, E-1
2.	A-1, E-1, S-1
3.	R-1 & 2
4.	A-1, E-1, S-1
5.	N/A BWR
6.	A-1, E-1, N-1, S-1
7.	A-1, E-1, N-1, S-1

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EXHIBIT 2

Fission Product Barriers Guidelines

Cat. "S" - Fission Product Barriers Guidelines - This table is not all inclusive, it is provided as possible indications of boundary breaches.

EAL - Loss of 2 of 3 Fission Product Barriers with the Potential Loss of the third Barrier. (For example, loss of Reactor Coolant System Boundary, Fuel Clad failure and high potential for loss of Containment.)

<u>Boundary</u>	<u>Potential Loss</u>	<u>Barrier Loss</u>
Rx Coolant System	1. Drywell Pressure >3 psig due to suspected L.O.C.A.	1. Confirmed leakage from Rx. Coolant System >50 gpm.
Fuel Clad	1. Main Steamline Radiation monitor High-High Alarm. 2. RPV Level \leq -30" TAF. 3. Rx. Power Oscillations	1. Coolant activity exceeds 300 uci/gm dose equivalent iodine. * SEE TABLE BELOW 2. Off-gas discharge indicates >10,000 mR/Hr.
Primary Containment	1. D.W. Bulk temperature cannot be maintained below 281°F. 2. Boron injection required IAW EMG-3200.01 RPV Control. 3. Containment H2 concentration \geq 6% and D.W. or Torus O2 concentration >5%.	1. Unexplained rapid decrease in D.W. pressure after initial increase due to L.O.C.A. 2. Unexplained increase in Area Radiation monitors outside Primary Containment in more than one area with known or suspected leakage from the Pri. Containment. 3. Venting of the Containment is required for Accident Control.

FUEL CLAD DAMAGE CONDITIONS FOR COOLANT ACTIVITY EXCEEDING 300 UCI/GM DOSE EQUIVALENT IODINE

Conditions	CHRRMS	Stack	Rad Engineering Calculation Number
LOCA Reactor Building	N/A	0.13 μ Ci/cm3	2820-99-012
LOCA Drywell	440 R/hr	N/A	2820-99-017
No LOCA	63 R/hr	N/A	96-004

**OYSTER CREEK
EMERGENCY PREPAREDNESS
IMPLEMENTING DOCUMENT**

Number
OEP-ADM-1319.01

Title
Oyster Creek Emergency Preparedness Program

Revision No.
10

Applicability/Scope
Applies to work at Oyster Creek

Usage Level
3

Responsible Department
Emergency Preparedness

This document is within QA plan scope
50.59 Reviews Required

Yes ___ No
___ Yes No

Effective Date
12/12/01

Prior Revision 9 incorporated the following Temporary Changes:

N/A

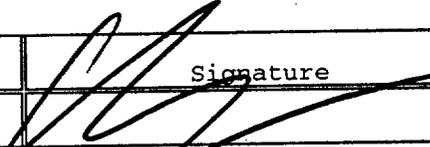
This Revision 10 incorporates the following Temporary Changes:

N/A

List of Pages (all pages rev'd to Rev. 10)

- 1.0 to 19.0
- E1-1 to E1-4
- E2-1 to E2-2
- E3-1
- E4-1 to E4-2
- E5-1
- E6-1
- E7-1
- E8-1
- E9-1
- E10-1

**NON-CONTROLLED
THIS DOCUMENT WILL NOT
BE KEPT UP TO DATE
IRMC OYSTER CREEK**

	Signature	Concurring Organization Element	Date
Originator		Emergency Planner	12/5/01
Approved By	R. Mark Moore	Radiation Protection Manager	12/8/01

Title
Oyster Creek Emergency Preparedness Program

Revision No.
10

DOCUMENT HISTORY

REV	DATE	ORIGINATOR	SUMMARY OF CHANGE
12	02/92	R. Sullivan	Update EP Admin Procedure to reflect changes in the EP Program.
13	05/92	R. Sullivan	Revise section 5.6.3.1 to allow short term change of duty without written notification to security.
14	07/92		Telephone number changes.
15	03/93		Make Exhibits 8 & 9 agree with Emergency Planning update staffing responsibilities.
16	06/94	A. Smith	Update NRC telephone number, also Duty Roster.
17	10/94	A. Smith	Delete Parsippany Field Monitoring teams.
18	01/95	A. Smith	Clarify on shift minimum staffing requirements. Supplemental positions added to duty roster at Mgt. discretion.
19	03/95	A. Smith	Delete team & position number from teleclerk announcement & replace with nine digit SS #.
0	01/96	A. Smith	Correct titles, clarify shift security supervisor in ref. to weekly comm. test. Revises procedure number to OEP series. Also clarify drill admin. and include action item training system. Rev. bars not applicable. Major rewrite.
1	07/96	T. Blount	Update phone numbers for Plant Ops Manager and INPO.
2	10/96	T. Blount	Clarify what a Supplemental position holder can do regarding filling an Essential position. Removed some Supplemental positions. Changed Duty Roster issuance frequency to as determined by EP Mgr. or Annually whichever is sooner.
3	12/97	P. Hays	Incorporate steps for computer configuration controls.
4	05/98	P. Hays	Updates Exhibits 2 & 8 to reflect recent changes in two duty roster staffing. Adds note for respirator glasses requirement. Changes Exhibit 9A to reflect recent changes in computer controls.
5	10/98	A. Smith	Change reference to action items and use "CAP's" as tracking system. Add information technologies to the notifications on the Drill Admin. form.
6	04/99	A. Smith	Indicate Safety Review required on cover page, reference new E-Plan #, ERO Test notification to weekly from every Thursday.
7	DOS	A. Smith	Change reference from GPU to OCNGS, reflect Monday for roster change of duty, add Lotus Notes for D.R. change of duty, update ERO to reflect PI Pos.
8	04/01	A. Smith	Delete position 355, OSC communicator.
9	06/01	A. Smith	Update titles in Exhibit 2 for selection mgrs; add 2 Exhibits 9 & 10 to capture duty roster placement of personnel.
10	12/01	A. Smith	Update titles, delete the weekly pager test, clarify duty roster process/responsibilities, update duty poster; discrimination process from hard copy to Lotus Notes.

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1.0 PURPOSE

This procedure defines the Oyster Creek Emergency Preparedness Program requirements and maintenance.

2.0 APPLICABILITY/SCOPE

2.1 This procedure applies to Oyster Creek Division and all Support Divisions in their activities at Oyster Creek relating to emergency preparedness.

2.2 This procedure delineates Oyster Creek responsibilities as assigned in 2000-PLN-1300.01, OCNGS Emergency Plan.

3.0 DEFINITIONS

3.1 Emergency Duty Roster - Consists of all Initial Response Emergency Organization (IREO) and Emergency Support Organization (ESO) personnel.

3.2 Oyster Creek Emergency Plan Implementing Document - This document shall include Emergency Plan Implementing Procedures and should include Emergency Preparedness Administrative Procedures.

3.3 Oyster Creek Emergency Preparedness Program - The program implemented by Oyster Creek Division, Support Divisions, and the Oyster Creek Emergency Preparedness Section to maintain a high level of emergency preparedness.

3.4 Essential Positions - Consist of those duty roster positions (personnel) described in the Emergency Plan. These positions are presented in Exhibit 7.

3.4.1 Essential positions also include the On-Shift Personnel required to meet the minimum staffing requirements of Table 5 of 2000-PLN-1300.01, OCGS Emergency Plan.

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3.5 Supplemental Positions - Consist of those duty roster positions (personnel) not required by the Emergency Plan.

3.5.1 Supplemental positions shall be trained as a minimum in accordance with Oyster Creek Emergency Plan Section 8.2.1, Step 1.

3.5.1.1 Supplemental positions should receive training in accordance with the Emergency Preparedness Training Program description 6200-PGD-2685, as a good practice, but it is not required.

3.5.2 Supplemental positions may fulfill the duties and responsibilities of an essential position if their training and qualification meet the minimum requirements as applicable for that position in Exhibit 4.

3.5.3 The supplemental positions are identified on the duty roster by the mid position number of 5 or higher in the three digit "position" identifier (e.g.; X5X, X6X, X7X, etc.). These positions are listed in Exhibit 8.

4.0 RESPONSIBILITIES

4.1 Directors, Managers and Supervisors shall:

4.1.1 Provide assistance in scenario preparation by developing supporting data and/or ensuring technical accuracy and credibility as requested.

4.1.2 Provide drill observers and controllers to assist in the conduct and evaluation of emergency drills and exercises as needed.

4.1.3 Nominate individuals from their organization for Initial Response Emergency Organization and Emergency Support Organization positions, as specified in Exhibit 2, Emergency Duty Roster Staffing Responsibilities, to fill current or projected vacancies on the Emergency Duty Roster.

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- 4.1.3.1 Individuals currently holding a position on the Emergency Duty Roster may be trained for other Roster positions but should not be assigned more than one position on the duty roster.
- 4.1.3.2 Individuals must complete initial training/retraining for the Roster position to which they are nominated prior to being assigned to the Roster unless a valid exception is documented in accordance with the Training Program.
- 4.1.4 Monitor their personnel's progress in achieving and maintaining proficiency on Emergency Preparedness assignments. This should be recognized in Employee Performance reviews.
- 4.1.5 Ensure that they and their personnel attend scheduled Emergency Preparedness training.
- 4.1.6 When necessary submit "Drill Exemption List" Exhibit 6, to the Plant Manager (or designee) for approval at least twenty four (24) hours prior to the Drill date.
- 4.2 The Emergency Preparedness Section - OC shall:
 - 4.2.1 Schedule the training and retraining of Emergency Duty Roster personnel to maintain personnel training requirements current and provide timely notification of necessary training to appropriate personnel.
 - 4.2.2 Develop, implement and maintain the Oyster Creek Emergency Preparedness Training Program within the guidance set forth in Reference 6.1 and 6.5.

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- 4.3 The Emergency Preparedness Manager/Site Coordinator - OC is responsible for the overall development, implementation and maintenance of the Oyster Creek Emergency Preparedness Program. The Emergency Preparedness Manager - OC shall:
- 4.3.1 Plan, coordinate, implement and evaluate drills and exercises.
 - 4.3.2 Maintain Emergency Duty Roster and issue Confidential Telephone Information listing when the Mgr. determines sufficient Org./Personnel changes warrant revision or at least annually whichever is more frequent. The Roster should be reviewed by the Emergency Prep Manager, approved by the Duty Roster Coordinator & Senior Site Management.
 - 4.3.3 Direct the issuance of a Initial Response Emergency Organization Duty Schedule for Drills/Exercises annually.
 - 4.3.4 Review/concur on the Emergency Preparedness Training Program Description and related lesson plans and exams for technical accuracy and conformance with the Emergency Plan.
 - 4.3.5 Maintain the Emergency Preparedness Surveillance Program and accompanying documentation. The Program includes, but is not necessarily limited to:
 - 4.3.5.1 Installed equipment operability and performance testing.
 - 4.3.5.2 Reviews and audits of Emergency Response Facilities and equipment readiness.
 - 4.3.5.3 Periodic updating of Letters of Agreement and emergency phone numbers.
 - 4.3.5.4 Ensuring the technical adequacy of Emergency Preparedness Section staff personnel.

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- 4.3.6 Review the Oyster Creek Emergency Preparedness Program to ensure satisfactory overall performance.
- 4.3.7 Track to completion "CAP" items related to emergency preparedness.
- 4.3.8 Control and revise Emergency Plan implementing procedures to reflect current information consistent with the latest revisions to the Emergency Plan and changes to EP facilities, equipment and documents.
- 4.3.9 Maintain and program as necessary the Emergency Response Organization Notification system. Review data derived from notification system tests and take corrective action for unsatisfactory results.
- 4.3.10 Perform critiques of actual implementations of the Emergency Plan (eg., any declared emergency).
- 4.4 Personnel assigned to the Initial Response and Emergency Support Organization Duty Roster are responsible to:
 - 4.4.1 Ensure that their assigned radio pager is operable and turned on when on duty and take positive action to replace their pager if it fails.
 - 4.4.2 Ensure that they are available to report for duty in accordance with the Fitness For Duty Policy within the required time during the period when they are on duty. Obtain a qualified replacement in accordance with Section 5.6.3 to carry out the assigned duties and responsibilities when any situation prevents him/her from performing his/her duty assignment on a short-term basis.

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- 4.4.3 Call the OCGS Teleclerk at (609) 971-4935 any time their assigned radio pager activates by a group code and follow the instructions provided by the Teleclerk message.

NOTE

If the Teleclerk cannot be reached, or there is a discrepancy between pager message code and teleclerk message, report to your assigned ERF.

- 4.4.4 Acknowledge the phone message provided by the Teleclerk System, if contacted at home, and follow the instructions provided by the Teleclerk System.
- 4.4.5 Ensure that the Emergency Preparedness Section has their current telephone numbers (office and home).
- 4.4.6 Maintain respirator and training qualifications.

NOTE

Personnel in positions that require the use of respirators and require eye glasses must have the appropriate respirator eye glasses available at all times when on duty.

- 4.5 Key members of the IREO and ESO should perform in, or observe a drill/exercise every 18 months ($\pm 25\%$). These members include: Emergency Director, OSC Coordinator, Emergency Support Director, and the Group Leader R & EC. At the discretion of EP Management key personnel who do not meet this criteria may be removed from the duty roster until the criteria is met.

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5.0 PROCEDURE

The Oyster Creek Emergency Preparedness Program consists of the following elements:

5.1 Development, implementation and maintenance of the Emergency Plan

Implementing Document - This document, as defined in Section 3, implements the Oyster Creek Emergency Preparedness Program.

5.2 Emergency Preparedness Training Program - This program is governed by Reference 6.1 and conducted in accordance with the Oyster Creek Training Department Procedures.

5.3 Emergency Drills and Exercises

5.3.1 An exercise is an evaluated demonstration of major portions of emergency response capabilities. An exercise tests the integrated capability of the emergency response organization to identify weaknesses that could affect the response to an actual emergency. Exercises usually involve a large radiological release affecting the off-site populace and usually involve the full or partial participation of federal, state, and local agencies. (ref: INPO 88-019)

5.3.2 A drill is an evolution conducted to develop and maintain key emergency response skills. Drills are usually narrower in scope than exercises and can be used to train a specific area of response such as fire response, medical response, or interagency communications. Drills can also be used to train for integrated response of the emergency organization. Drills should be used to practice and promote a high state of readiness and teamwork within and between on-site facilities and disciplines. Drills can be used to correct deficiencies identified in exercises. (ref: INPO 88-019)

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5.3.3 Periodic drills and exercises will be conducted in order to assess the state of emergency preparedness. The prime objective of this form of training is to verify the emergency preparedness of all participating personnel, organizations, and agencies. Each drill or exercise will be conducted to: (1) ensure that the participants are familiar with their respective duties and responsibilities, (2) verify the adequacy of the Emergency Plan and the methods used in the Emergency Plan Implementing Documents, (3) test communications networks and systems, (4) check the availability of emergency supplies and equipment, and (5) verify the operability of emergency equipment. In addition, repair and damage control shall be included in one major drill/exercise on an annual basis. (ref: OCNCS E-Plan)

5.3.3.1 Medical Emergency Drill

Medical Drill shall be conducted annually. The drill will involve the participation of local medical support personnel and organizations (e. g., physician, ambulance service, hospital), and will involve simulated (injured) contaminated personnel.

5.3.3.2 Fire Emergency Drill

Fire drills shall be conducted in accordance with the site Fire Protection Plan.

5.3.3.3 Radiological Monitoring Drill

Radiological Drill shall be conducted annually. The drill shall include collection and analysis of all appropriate sample media for both onsite and offsite locations.

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5.3.3.4 Radiological Controls Drill

At least one drill shall be conducted semi-annually. The drill will involve response to, and analysis of, simulated elevated airborne and liquid samples and direct radiation measurements. The drill shall include analysis of inplant liquid samples with simulated elevated activity levels.

5.3.3.5 Hazardous Material Spill Drill

Hazardous Material Spill Drills shall be conducted as required by the OCNCS Environmental Control Plan.

5.3.3.6 Biennial Exercises

- a. The OCGS Emergency Plan shall be tested biennially to include a scenario with a Site Area or General Emergency. State and local government emergency plans will be included with full or partial participation by state and local governments within the Plume Exposure Pathway EPZ as required by federal regulations.
- b. Conduct of the exercise shall include mobilization of onsite and offsite emergency response personnel and resources in order to verify their capability to respond to an emergency. Communications with State and County agencies will be included. The scenario will be varied from year to year such that all major elements of these plans and preparedness organizations are tested within a six year period. Once within each six year period an exercise will be started in accordance with NRC and FEMA objectives for off-normal hours.

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- 5.3.4 "Hands-On/OJT" Drills will be conducted when it is determined additional training or experience will enhance an individual, selected group, facility staff or the ERO's ability to respond to emergency conditions. This session may take the form of a walk-through or a table-top discussion of an evolution/operation. This type of drill is distinct from those described in Section 5.3.3 in that the focus is limited and will generally not include an integrated response.
- 5.3.5 Actual Emergency Plan Activations may be credited in place of selected drills if the Emergency Preparedness Manager deems it appropriate. Generally an Alert or higher level emergency may be substituted for a Drill. Such events may also replace an Exercise with NRC approval.
- 5.3.6 Drill Controllers and Evaluators will be selected from the Plant and supporting divisions based on their specialized expertise. Selection will be based on Company Organizational Position and/or Emergency Response Organization qualifications.
- 5.3.7 Drill attendance may be conducted by the facility drill controller/evaluators. Attendance sheets should be signed by the participants for drill credit. Attendance sheets should be returned to the Emergency Preparedness Section for documentation.
- 5.3.8 Personnel may be exempted from drill participation by submitting a copy of a completed Exhibit 6. This should be submitted at least twenty-four (24) hours prior to the scheduled drill date. Should a member of the Team/Priority participating in the Drill require exemption, the Director, Manager, or Supervisor requesting the exemption shall make all necessary arrangements for coverage of that position during the drill. The Drill Exemption List must be approved by the Plant Manager or his designee. Completed copies shall be sent to Shift Security Supervisor's Office - Main Gate and Emergency Preparedness Office.

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5.3.9 NRC Administrative Letter 94-16 (dated November 30, 1994) provides revised guidance concerning NRC Core Inspection Program for Annual E.P. exercises.

5.3.9.1 The letter revised the inspection frequency for performing specific inspection modules (Evaluation of Exercises for Power Reactors and Review of Exercise Objectives and Scenarios for Power Reactors) from annual to biennial.

5.3.9.2 An Annual exercise will be conducted in accordance with 10CFR50 App. E and submittal of exercise scenarios and objectives will be done biennially, in accordance with IN-94-16.

5.3.10 All drills and exercises will be documented using Exhibit 1. Any items which do not pertain to a particular exercise or drill should be noted "N/A":

5.4 Emergency Preparedness Surveillance Program - Included in the Oyster Creek Emergency Preparedness Procedure Manual as the OEP-SUR-1310 series.

5.5 Emergency Response Facilities and Equipment Readiness - These facilities and associated equipment will be maintained in accordance with OEP-ADM-1319.02, Emergency Response Facilities and Equipment Maintenance.

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5.6 Emergency Response Organization - The maintenance of the Emergency Response Organization will be as follows:

5.6.1 Nomination and approval process.

5.6.1.1 Responsible Directors, Managers and Supervisors as listed in Exhibit 2, Emergency Duty Roster Staffing Responsibilities, should nominate individuals from the OCGS organization to fill current or projected vacancies in the Emergency Duty Roster.

1. The nominating Director, Manager or Supervisor shall ensure that nominated individuals meet the criteria outlined in Exhibit 4, Qualification Requirements for Essential Personnel.

5.6.1.2 Site Emergency Preparedness shall review the nominated individual's Emergency Preparedness training to ensure proper completion.

1. If the nominee has not completed Emergency Preparedness training, the appropriate training should be scheduled in a timely manner.
2. Once training has been completed the Emergency Duty Roster and Teleclerk shall be updated in accordance with Exhibit 10.

5.6.1.3 Personnel with lapsed qualifications which are not renewed shall be removed from the Duty Roster. Reinstatement shall be in accordance with 5.6.1.

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5.6.2 Emergency Duty Rosters and Schedules

5.6.2.1 The Emergency Duty Roster shall be revised, in the Duty Roster Database as changes occur. The Tele-Clerk Notification System will be updated as changes occur, in a timely fashion.

5.6.2.2 Periodically a Confidential Telephone Information listing will be published and distributed. This phone listing will be distributed to the following:

- Shift Security Supervisor's Office
- Emergency Operations Facility
- Emergency Control Center
- Technical Support Center

5.6.2.3 The Drills/Exercise Schedule will be published and distributed each calendar year.

5.6.3 Duty Roster/Schedule Changes

5.6.3.1 A short term change (exchange of duty for less than 72 hours) to the Initial Response Emergency Organization or Emergency Support Organization (IREO or ESO) Duty Schedule will be accomplished by having the qualified relief carry his/her pager and notifying the Shift Security Supervisor, in writing of the exchange of duty if time permits. If no written notification is received by Security, the on-call duty roster member will be responsible to ensure the position is filled.

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5.6.3.2 A long term change (exchange of duty for 72 hours or more) to the IREO or ESO Duty Schedule will be accomplished by the duty assignee submitting a notice similar to Exhibit 3, Notice of Temporary Change of Duty, or via Lotus Notes EP Duty Roster Exchange to the Emergency Preparedness Manager or designee with a copy to the Site Security Manager preferably one week in advance of the change. The notice will be retained until the change is no longer effective.

NOTE

A Lotus Notes Application is available to electronically submit a "Notice of Temporary Change of Duty". This is the preferred method of exchanging duty.

5.6.3.3 Personnel changes to the Emergency Duty Roster will be made by submitting a notice similar to the Emergency Duty Roster Change form and processed according to Section 5.6.1. Appropriate measures should be taken by the responsible managers to ensure all positions remain fully staffed.

5.6.4 Initial Response Emergency Organization (IREO) Team Duty Period

5.6.4.1 The normal period of on-call duty for the Initial Response Emergency Duty Roster Teams is 1600 hours Friday to 1600 hours Friday of the following week. Exceptions to this period are noted on the annual published duty schedule. During this period IREO members on duty shall be fit for duty in accordance with the employee Fitness for Duty Program (Reference 6.4). The OCGS Duty Roster Schedule identifies duty periods for all teams.

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5.6.5 Emergency Support Organization Team Duty Period

5.6.5.1 The ESO will follow duty rotation in accordance with Section 5.6.4.1. During the duty period these teams shall comply with the Employee Fitness for Duty program (Reference 6.4). The OCGS Duty Roster Schedule identifies duty periods for all teams.

5.7 Corrective Action Process (CAP) - Issues related to the conduct of the Emergency Preparedness Program should be entered into the CAP System. A self assessment of EP CAP items should be conducted each year not to exceed 15 months. The assessment should look for trends as described in 2000-ADM-7216.01.

5.8 Control of Software

5.8.1 Software developed or maintained by Emergency Preparedness shall be protected from unauthorized modification by:

5.8.1.1 Limiting distribution of uncompiled source code to those specifically authorized to modify the code.

5.8.1.2 Maintaining backup copies of source code

5.8.1.3 Maintaining backup copies of unprotectable external data.

5.8.1.4 Periodically creating backup copies of accumulated results data.

5.8.1.5 Software control is in accordance with 1000-ADM-1230.10 Master List.

5.8.2 Software shall have a specified responsible individual, who will:

5.8.2.1 Be a point of contact for user comments.

5.8.2.2 Notify users of errors or omissions.

5.8.2.3 Coordinate modification.

5.8.2.4 Ensure distribution of revisions to authorized users.

5.8.3 In house software shall be tested:

5.8.3.1 Before initial distribution.

5.8.3.2 After revision.

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5.8.3.3 Such test result documentation may be flexible based on the nature of the software or degree of revision.

5.8.3.4 Documentation for other than 'non-substantive changes' shall be permanent (memo, formal calculation when applicable, etc.). Use Exhibit 9 Software Configuration Control Change Request. Additional supporting documentation should be attached.

NOTE

Changes which could reasonably be expected to affect record retention or numerical accuracy shall be considered substantive. EXAMPLE: a change which adds the date to a printout may be non-substantive, a change which alters global results data file structures may be substantive even though no actual calculations are modified.

5.8.4 Vendor Supplied Software shall be tested:

5.8.4.1 For operability on available equipment.

5.8.4.2 For accuracy of results.

6.0 REFERENCES

- 6.1 OCGS Emergency Plan, 2000-PLN-1300.01
- 6.2 Emergency Preparedness Procedure, OEP-ADM-1319.02, Emergency Response Facilities and Equipment Maintenance
- 6.3 Oyster Creek Emergency Plan Implementing Document
- 6.4 Employee Fitness for Duty Procedure/Drug and Alcohol OSEC-IMP-2002.04.
- 6.5 2612-PGD-2685 Emergency Preparedness Training Program.
- 6.6 INPO Document - 88-019 - Emergency Preparedness Drill and Exercise Manual.
- 6.7 Corrective Action Process 2000-ADM-7216.01.
- 6.8 10CFR50
- 6.9 1000-ADM-1230.10, Computer Systems Control

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7.0 EXHIBITS

- 7.1 Exhibit 1, Example Drill Administrative Guide Form
- 7.2 Exhibit 2, Emergency Duty Roster Staffing Responsibilities
- 7.3 Exhibit 3, Example Notice of Temporary Exchange of Duty
- 7.4 Exhibit 4, Requirements for Emergency Duty Roster Personnel
- 7.5 Exhibit 5, Drill Exemption List
- 7.6 Exhibit 6, Emergency Response Organization Essential Positions
- 7.7 Exhibit 7, Emergency Response Organization Supplemental Positions
- 7.8 Exhibit 8, Software Configuration Control Change Request
- 7.9 Exhibit 9, Duty Roster Placement of Personnel
- 7.10 Exhibit 19, Lotus Notes Duty Roster Database Information

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(EXAMPLE)
EXHIBIT 1
DRILL ADMINISTRATIVE GUIDE FORM

1. Classification and Scheduling

The Emergency Preparedness Manager or his designee shall circle the appropriate title below and note the date and time the drill is to be held.

	<u>TIME</u> / <u>DATE</u>	<u>DATE</u> / <u>INITIALS</u>
• Drill	_____ / _____	
• Dress Rehearsal	_____ / _____	
• Annual Exercise	_____ / _____	_____ / _____

2. Scenario Development

The Emergency Preparedness Manager or his designee shall be responsible for the drill scenario preparation as well as obtaining scenario review from personnel listed below.

Scenario # _____ Revision _____ / _____

SRO (Name) _____

RAD PRO OR RAD ENGINEERING SUPERVISOR (Name) _____

OTHER REVIEW _____

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EXHIBIT 1 (Continued)

DRILL ADMINISTRATIVE GUIDE FORM

3. Outside Agency Notification DATE / INITIALS

The Emergency Preparedness Manager or his designee is responsible for coordinating efforts with outside participating emergency personnel and organizations and notifying the agencies indicated below;

- a. New Jersey State Police Emergency Operations Center (609) 882-4201 _____ / _____
- b. Ocean County Department of Emergency Services (908) 341-3451 _____ / _____
- c. NRC Operations Center, Rockville, Md. (301) 816-5100 (If no answer call (301) 951-0550) _____ / _____
(Specify Name) _____
- d. Resident NRC Inspector (609) 971-4978 _____ / _____
- e. Local Fire Companies (at the discretion of E. P. Mgr.) _____ / _____
- f. Community Medical Center [Nursing Services Supv. (908) 240-8000] (at discretion of E.P. Mgr.) _____ / _____
- g. Southern Ocean County Hospital [Nursing Service Supervisor (609) 597-6011] (at discretion of E.P. Mgr.) _____ / _____
- h. Rescue Squads (at discretion of E.P. Mgr.) _____ / _____
(Specify Which) _____
- i. INPO Emergency Ops Center (800) 321-0614 _____ / _____
- j. Ocean County Sheriff's Comm. Center (908) 349-2010 or (908) 349-2094 _____ / _____
- k. Lacey Township Police Dept. (609) 693-6636 _____ / _____
- l. Ocean Township Police Dept. (609) 693-4007 _____ / _____

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EXHIBIT 1 (Continued)

DRILL ADMINISTRATIVE GUIDE FORM

DATE / INITIALS

m. Other _____ / _____
(Specify) _____

4. Information Technologies Reading Help Desk (Ext. 5555) _____ / _____

5. Plant Notification

- a. Vice President, Oyster Creek (Ext. 2300) _____ / _____
- b. Plant Manager (Ext. 4415) _____ / _____
- c. Site Security Manager (Ext. 4949) _____ / _____
- d. Communications (Ext. 2180) _____ / _____

6. Observers

The Emergency Preparedness Manager is responsible for assigning observers to monitor personnel and areas involved in the drill. All plant and supporting departments are responsible for providing technically qualified observers to assist in drill observation and evaluation.

- a. Assign all observers. _____ / _____
- b. Publish memo providing date, times & locations to all observers. _____ / _____

7. Pre-Drill Meeting

Meet with all observers and other non-player personnel involved with the drill to brief them on scope, sequence of events and responsibilities.

_____ / _____

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(EXAMPLE)
EXHIBIT 1 (Continued)

DRILL ADMINISTRATIVE GUIDE FORM

	DATE / INITIALS
<p>8. <u>Shift Participation</u> The operating shift(s) actually tested in the drill/exercise should be listed.</p>	<p>_____ / _____</p>
<p>9. <u>Post Drill Requirements</u> Upon completion of the drill, the Emergency Preparedness Manager is responsible for meeting with all observers and holding a critique to review and discuss deficiencies and corrective actions.</p> <p>a. Meet with all observers to review their significant comments, if possible.</p> <p>b. Hold drill critique to review drill with involved personnel.</p> <p>c. Collect signed Observer comments as available.</p> <p>d. Collect Drill Attendance Forms, if used.</p> <p>e. Empty Lotus Notes database after drill report approval.</p>	<p>_____ / _____</p>
<p>10. <u>CAP Process</u> The Emergency Preparedness Manager or his designee is responsible for developing <u>CAP's</u> based upon drill recommendations.</p> <p>a. Develop <u>Action Items</u>.</p>	<p>_____ / _____</p>
<p>11. <u>Documentation and Routing of Drill and Critique Results</u> The Emergency Preparedness Manager or his designee is responsible for ensuring that all documents generated as a result of the drill are collected and forwarded to appropriate personnel and/or departments.</p> <p>a. Prepare and distribute Drill or Exercise Critique memo.</p> <p>b. Forward the completed drill packet to Document Control. Items included in the <u>Drill Packet</u> are the following:</p> <p>1. List of Observers</p> <p>2. Drill Critique</p> <p>3. Completed Drill Administrative Guide Form (Exhibit 1)</p> <p>c. Forward Drill Attendance Forms to Training Administrative Support</p>	<p>_____ / _____</p> <p>_____ / _____</p> <p>_____ / _____</p>

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(EXAMPLE)
EXHIBIT 2

Emergency Duty Roster Staffing Responsibilities

<u>Duty Roster Position</u>	<u>Responsibility for Staffing</u>
EMERGENCY CONTROL CENTER	
101 Operations Coordinator	Plant Manager
102 ECC Communications Coordinator	Plant Manager
103 ECC Communicator	Engineering
104 ECC Communicator	Plant Manager
TECHNICAL SUPPORT CENTER	
201 Emergency Director	Plant Manager
202 ED Assistant	Plant Manager
203 Rad Assessment Coordinator	Plant Manager
204 Rad Engineering Support	Plant Manager
205 TSC Coordinator	Director Engineering
206 TSC Engineer (Mech)	Director Engineering
207 TSC Engineer (Elec)	Director Engineering
208 TSC Engineer/I & C	Director Engineering
210 Core Engineer	Director Engineering
250 TSC Communications Coordinator	Director Engineering
253 Tech Assistant	Director Engineering
658 Computer Eng.	Director Engineering
OPERATIONS SUPPORT CENTER	
301 OSC Coordinator	Maintenance Director
302 Emergency Maintenance Coordinator	Maintenance Director
303 Rad Control Coordinator	Plant Manager
304 Chemistry Coordinator	Plant Manager
305 Medical Representative	Occupational Health
306 Security Coordinator	Station Support Director
350 Maintenance Team Coordinator	Maintenance Director
351 Emergency Maintenance Electrical	Maintenance Director
353 OSC Communications Coordinator	Maintenance Director
354 OSC Communicator (Operations)	Maintenance Director

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(EXAMPLE)
EXHIBIT 2

Emergency Duty Roster Staffing Responsibilities

Duty Roster Position

Responsibility for Staffing

OFF-SITE RADIOLOGICAL MONITORING TEAMS

450 Rad/Env Survey Team A Leader	Plant Manager
451 Rad/Env Survey Team A Assistant	Plant Manager
452 Rad/Env Survey Team B Leader	Plant Manager
453 Rad/Env Survey Team B Assistant	Plant Manager

EMERGENCY ASSEMBLY AREA

501 Emergency Assembly Area Coordinator	Work Management Director
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EMERGENCY OPERATIONS FACILITY

601 Emergency Support Director	Vice President
602 ESD Assistant	Vice President
603 Group Leader R&EC	Plant Manager
605 EOF Communications Coordinator	HR Manager
606 EOF Communicator	HR Manager
607 EOF Communicator	HR Manager
608 Tech Support Representative	Director Engineering
609 Group Leader - Administrative Support	Work Management Director
610 Emergency Preparedness Representative	Station Support Director
612 P.I. Tech Rep/Com	HR Manager
650 Tech Support Staff	Director Engineering
651 Tech Support Staff	Director Engineering
652 Tech Support Staff	Director Engineering
653 Administrative Support Staff	Work Management Director
654 Material Management Coordinator	Work Management Director

ENVIRONMENTAL ASSESSMENT COMMAND CENTER

801 Environmental Assessment Coordinator	Plant Manager
802 Met/Dose Assessment Coordinator	Plant Manager

JIC

910 Media Center Lead - Com	HR Manager
911 Media Ct. Advisor/Communicator	HR Manager
912 PI Tech Rep - Com	HR Manager
913 PI Rep - Com	HR Manager
952 JIC Admin./Communicator	HR Manager

Title

Oyster Creek Emergency Preparedness Program

Revision No.

10EXHIBIT 3Notice of Temporary Exchange of DutySubject: IREO/ESO Exchange of Duty
(circle one)To: Emergency Preparedness Manager - OC
Security Manager - OCI, _____, am assigned to the Emergency
Name

Response Organization Duty Roster, Position Number _____, as

a(n) _____.
Assignment

I will be unable to fulfill my on-call assignment during the period

_____ to _____ and have arranged with

Name Home Telephone No. Office No.

who is fully qualified to perform my duties during this period.

Signature_____
Title

Signature:

Person Accepting Duty

Date: _____

Title Oyster Creek Emergency Preparedness Program	Revision No. 10
---	---------------------------

(EXAMPLE)
EXHIBIT 4

QUALIFICATION REQUIREMENTS FOR ESSENTIAL PERSONNEL

I. On-Shift Emergency Organization

- A. Satisfactorily complete and maintain required skills training and possess operators license, as appropriate, for assigned position.
- B. Satisfactorily complete and maintain Emergency Preparedness Training Program requirements for position assigned.
- C. Satisfactorily complete and maintain respirator qualification in accordance with Plant requirements.
- D. Satisfactorily complete and maintain radiation worker training (Level II).
- E. Must be active in the dosimetry system (i.e., TLD).

II. Initial Response Emergency Organization (IREO)

- A. Satisfy the prerequisites for selection and assignment to the specific emergency response position to which assigned, as specified in the Emergency Plan.
- B. Must satisfy 1 hour response time requirement.
- C. Satisfactorily complete and maintain Emergency Preparedness Training Program requirements for position assigned in the Initial Response Organization.
- D. Satisfactorily complete and maintain respirator qualification in accordance with Plant requirements.
- E. Satisfactorily complete and maintain radiation worker training (Level II).
- F. Must be active in the dosimetry system (i.e., TLD assigned).

*NOTE

Items D, E, and F above are not applicable to Emergency Assembly Area Coordinators.

*NOTE

Exemptions to IC and II D may be granted by the Plant Manager or designee with EP concurrence from the Emergency Preparedness Manager if loss of the individual's expertise may lower the effectiveness of the EP Program. However, the individual will not be permitted to enter an area where respirators are required.

Title	Revision No.
Oyster Creek Emergency Preparedness Program	10

(EXAMPLE)
EXHIBIT 4
(continued)

QUALIFICATION REQUIREMENTS FOR ESSENTIAL PERSONNEL

III. Emergency Support Organization (ESO)

- A. Satisfy the prerequisites for selection and assignment to the specific emergency response position to which assigned, as specified in the Emergency Plan.
- B. Satisfactorily complete and maintain Emergency Preparedness Training Program requirements for the position assigned in the Emergency Support Organization.

NOTE

All essential personnel assigned an emergency response role requiring response onsite during an emergency shall be respirator qualified. In addition, all such personnel shall be active in the dosimetry system (i.e., TLD assigned). This note applicable to Sections I and II above and not III.

Title
Oyster Creek Emergency Preparedness Program

Revision No.
10

EXHIBIT 6

Emergency Response Organization

Essential Positions

101 Operations Coordinator
102 ECC Communications Coordinator
103 ECC Communicator (Tech Functions)
104 ECC Communicator (Plant Status)
201 Emergency Director
202 E.D. Assistant
203 Rad. Assessment Coordinator
204 Radiological Engineering Support
205 TSC Coordinator
206 TSC Engineer (Mech)
207 TSC Engineer (Elec)
208 TSC Engineer (I&C)
210 Core Engineer (Tech Functions)
301 OSC Coordinator
302 Emergency Maintenance Coordinator
303 Radiological Controls Coordinator
304 Chemistry Coordinator
305 Medical Representative
306 Security Coordinator
501 Emergency Assembly Area Coordinator
601 Emergency Support Director
602 ESD Assistant
603 Group Leader R&EC
604 Public Information Representative
605 EOF Communications Coordinator
606 EOF Communicator
607 EOF Communicator
608 Tech Support Representative
609 Group Leader - Admin Support
610 Emergency Preparedness Representative
612 PI Tech Rep/Com
801 Env. Assess. Coordinator
802 Met/Dose Assessment Coordinator
910 Media Center Lead/Com
911 Media Center Advisor/Com
912 PI Tech Rep/Com
913 PI Rep/Com

Title	Revision No.
Oyster Creek Emergency Preparedness Program	10

EXHIBIT 7

Emergency Response Organization

Supplemental Positions

250 TSC Communications Coordinator
253 Technical Assistant
350 Maintenance Team Coordinator
351 Emergency Maintenance Electrical
353 OSC Communications Coordinator
354 OSC Communicator (Operations)
450 Rad/Env. Survey Team A Leader
451 Rad/Env. Survey Team A Assistant
452 Rad/Env. Survey Team B Leader
453 Rad/Env. Survey Team B Assistant
650 EOF Tech Support Staff
651 EOF Tech Support Staff
652 EOF Tech Support Staff
653 Admin Support Staff
654 Materials Management Coordinator
658 Computer Eng.
952 JIC Admin./Communicator

Title
Oyster Creek Emergency Preparedness Program

Revision No.
10

EXHIBIT 8

Software Configuration Control Change Request

1. Software/Source Code to be Changed: _____

2. Requested Change: _____

3. Responsible Point of Contact: _____

4. Concurrence for Change Request YES / NO Sig. _____ Date _____

If NO an explanation should be provided to requesting party, If YES proceed with request.

5. Responsible Change Party: _____

5.1 Description of Change: _____

5.2 Method of Verification and Validation: _____

6. Responsible Reviews: _____

7. Emergency Preparedness Approval

Approval Signature / Title / Date

Title
Oyster Creek Emergency Preparedness Program

Revision No.
10

EXHIBIT 9

Duty Roster Placement of Personnel

1. Responsible management listed in Exhibit 2 will notify the Duty Roster Coordinator of an anticipated vacancy, duty roster change or person to be removed from the roster.
2. Responsible management identifies personnel replacement to Duty Roster Coordinator.
3. Duty Roster Coordinator checks prerequisites of duty position with personnel qualifications. If personnel are qualified proceed with this process. If personnel are NOT qualified, determination will be made on a case by case basis with the responsible management to gain the necessary training to qualify the person in the position.
4. Duty Roster Coordinator will schedule and/or conduct the necessary class or classes. Provide new roster member with duty roster packet.
5. Duty Roster Coordinator will, if necessary, coordinate completion of qual card and/or drill.
6. Duty Roster Coordinator will notify responsible management that individual is qualified to assume duty roster position and if necessary grant removal of outgoing roster personnel.
7. Duty Roster Coordinator will update the teleclerk and lotus notes EP roster database to add/move personnel into new position. Use Exhibit 10 for update information.
8. Individual notified of exact duty roster placement by the Duty Roster Coordinator.

Title
Oyster Creek Emergency Preparedness Program

Revision No.
10

EXHIBIT 10

Lotus Notes Duty Roster

Database Information

NAME _____
EMPLOYEE _____
EST. REPORTING TIME
TO ERF FROM HOME _____
SOCIAL SECURITY # _____
HOME BASE # _____
SITE ADDRESS _____
WORK PHONE # _____
HOME PHONE # _____
BEEPER # _____
CELL # _____

EP OFFICE TO FILL IN

TEAM # _____ POSITION # _____
TRAINING/QUALIFICATION COMPLETE DATE _____
DUTY ROSTER START DATE _____
SUPERIOR/MANAGER _____

**OYSTER CREEK
EMERGENCY PREPAREDNESS
IMPLEMENTING PROCEDURE**

Number
EPIP-OC-.13

Title SITE EVACUATION AND PERSONNEL MUSTERING AT REMOTE ASSEMBLY AREAS		Revision No. 9
Applicability/Scope Applies to work at Oyster Creek	Usage Level 2	Responsible Department Emergency Prep
This document is within QA plan scope 50.59 Applicable		Effective Date 12/10/01

____ X Yes ____ No
____ Yes X No

Prior Revision 8 incorporated the following Temporary Changes:

N/A

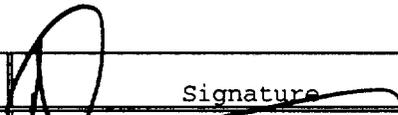
This Revision 9 incorporates the following Temporary Changes:

N/A

List of Pages (all pages rev'd to Rev. 9)

- 1.0 to 4.0
- E1-1 to E1-3
- E2-1 to E2-2
- E3-1
- E4-1

**NON-CONTROLLED
THIS DOCUMENT WILL NOT
BE KEPT UP TO DATE
IRMC OYSTER CREEK**

	Signature	Concurring Organization Element	Date
Originator		EP Coordinator	11/27/01
Approved By	Mark Moore	Radiation Protection Manager	11/27/01

Title
**SITE EVACUATION AND PERSONNEL MUSTERING AT REMOTE
ASSEMBLY AREAS**

Revision No.
9

PROCEDURE HISTORY

REV	DATE	ORIGINATOR	SUMMARY OF CHANGE
3	06/95	A. Smith	Add additional evacuation areas outside the Protected Area. Replace Trl. 250 with OCAB. New layout for Forked River Assembly Area.
4	05/96	D. VanNortwick	Add additional facilities to be evacuated on site evaluation checklist.
5	05/97	A. Smith	AEOF removed from E-Plan 1000-PLN-1300.01 in Rev. 11.
6	10/97	A. Smith	Update local telephone Area Codes
7	DOS	A. Smith	Required for sale of OCNGS. Changes references of GPU or GPUN to OCNGS.
8	10/00	A. Smith	Update evacuation maps to include new parkway interchange.
9	10/01	A. Smith	Remove security as remote assembly area coordinator and replace with Rad Pro Coordinator.

Title

**SITE EVACUATION AND PERSONNEL MUSTERING AT REMOTE
ASSEMBLY AREAS**

Revision No.

9

1.0 PURPOSE

1.1 This procedure provides for the orderly mustering and evacuation of all non-essential personnel from the protected area and other owner controlled areas at Oyster Creek to the Forked River Assembly Area and/or the Berkeley Remote Assembly Area.

2.0 APPLICABILITY/SCOPE

2.1 This procedure applies to Oyster Creek Site Security

3.0 DEFINITIONS

None.

4.0 RESPONSIBILITIES

4.1 The Emergency Director shall notify the Security Shift Commander that a site evacuation has been ordered and provide the evacuation route, areas other than the protected area to be evacuated and any other pertinent instructions. The Emergency Director will specify either the Forked River Assembly Area or the Berkeley Remote Assembly Area as a destination.

4.2 The Security Shift Supervisor shall coordinate the site evacuation, the accompanying muster, and the activation of the designated assembly area.

4.3 The Rad Pro Tech dispatched to either assembly area shall assume control point duties at the facility.

5.0 PROCEDURE

5.1 The Emergency Director shall perform his duties in accordance with EPIP-OC-.02, Exhibit 1, "General Emergency", Section 3.2.1.

5.2 The Security Shift Commander shall perform his duties in accordance with Exhibit 1.

5.3 The Rad Pro Tech dispatched to the assembly area shall perform his duties in accordance with Exhibit 1.

Title SITE EVACUATION AND PERSONNEL MUSTERING AT REMOTE ASSEMBLY AREAS	Revision No. 9
--	-------------------

6.0 REFERENCES

- 6.1 2000-PLN-1300.01 "OCGS Emergency Plan".
- 6.2 Procedure EPIP-OC-.12, "Personnel Accountability".
- 6.3 Procedure OSEC-CON-1530.58, "Security Force Evacuation".

7.0 EXHIBITS

- 7.1 Exhibit 1, Site Evacuation Checklist
- 7.2 Exhibit 2, Departure Instruction Sheet and Evacuation Route Map
- 7.3 Exhibit 3, Layout of the Berkeley Remote Assembly Area
- 7.4 Exhibit 4, Layout of the Forked River Assembly Area

Title SITE EVACUATION AND PERSONNEL MUSTERING AT REMOTE ASSEMBLY AREAS	Revision No. 9
--	-------------------

EXHIBIT 1
SITE EVACUATION CHECKLIST

- | <u>TIME/INITIALS</u>
_____/_____ | |
|-------------------------------------|--|
| _____/_____ | 1.0 Notified by Emergency Director that site evacuation has been ordered. Evacuation destination to be used:

<input type="checkbox"/> Forked River Assembly Area
<input type="checkbox"/> Berkeley Remote Assembly Area

Evacuation Route:

<input type="checkbox"/> North <input type="checkbox"/> South* |
| _____/_____ | 2.0 Evacuation to include the following areas outside the Protected Area.

<input type="checkbox"/> Building 24
<input type="checkbox"/> Area outside the protected area between the canal and Route 9 including the switchyard
<input type="checkbox"/> Oyster Creek Administration Building
<input type="checkbox"/> Forked River Site Buildings 1, 2, 5, 12, and 14
<input type="checkbox"/> Security Firing Range
<input type="checkbox"/> Fire Brigade Training Area
<input type="checkbox"/> GPU Energy Southern Area Stores
<input type="checkbox"/> GPU Energy Combustion Turbine Site
<input type="checkbox"/> Independent Spent Fuel Storage Facility
<input type="checkbox"/> Fire Pond Pump House |
| _____/_____ | 3.0 Notify areas identified via Forked River Page and/or bullhorns. |
| _____/_____ | 3.1 Perform sweep of O.C. Admin. and Forked River Buildings <u>when manpower levels permit.</u> |
| _____/_____ | 4.0 If not previously accomplished, ensure site Security personnel are accounted for utilizing a security badge slot number listing. |
| _____/_____ | 5.0 <u>If necessary:</u> evacuate Security force personnel in accordance with OSEC-CON-1530.58. |
| _____/_____ | 6.0 Security officer assigned to each exit area (EAA, MGPC, and NGPC) to collect security badges and dosimetry and to issue evacuation instructions and route maps. (Exhibits 2 and 3) |

* South route may be simulated during drills.

Title
**SITE EVACUATION AND PERSONNEL MUSTERING AT REMOTE
ASSEMBLY AREAS**

Revision No.
9

EXHIBIT 1
(Cont'd)

- / 7.0 Appropriate gates and/or doors opened to accommodate evacuation.
- [] Gate 3**
- The following should be opened only if personnel accountability was previously ordered and the EAA activated.
- [] Door 130-D opened by Secondary Alarm Station*
- [] Door 139-B open
- / 8.0 Rad Pro Tech(s) assigned to be dispatched to the specified assembly area.
- [] Forked River [] Berkeley
- [] Rad Pro Coordinator notified to coordinate assembly of Rad Pro Tech(s) and equipment, issued assembly area packet and instructed to obtain names and slot numbers of evacuees arriving at the RAA.
- [] Rad Pro Tech(s) dispatched to the assembly area.
- [] Security officers directed to provide verbal instruction to proceed, for further processing, directly and expeditiously to the designated assembly area by the appropriate route in vehicles containing no less than four persons. (South evacuation route may be simulated during drills).
- / 9.0 If Berkeley Remote Assembly Area is specified:
GPU Energy System Dispatcher or, during working hours, the Supervisor-Line Berkeley District shall be notified and instructed not to allow Oyster Creek evacuees into the RAA until the arrival of the Rad Pro Tech(s).
- GPU Energy System Pineland Area Load Supervisor
(973) 455-8274
- Berkeley Operations Headquarters
(732) 244-4728
- / 10.0 Rad Pro Coordinator contacted to remove collected dosimetry.

- * Emergency only
- ** Normally simulated during drills

Title

**SITE EVACUATION AND PERSONNEL MUSTERING AT REMOTE
ASSEMBLY AREAS**

Revision No.

9

EXHIBIT 1
(Cont'd)

- _____/____ 11.0 Site evacuation complete.
- _____/____ 12.0 Communication established with Rad Pro Tech assigned to the assembly area.
- _____/____ 13.0 Rad Pro Technicians establish access control point at assembly area north entrance. Rad Pro Tech will assume control point duties.
- Rad Pro Tech maintains access control log.
- Rad Pro Tech will call in Muster List within 30 minutes of establishing access control point to the Security Shift Commander if possible. Rad Pro Tech will call in additional persons arriving at assembly area periodically as they arrive.
- _____/____ 14.0 Upon arrival of traffic control point (local police officer) provide evacuation route (north/south).
- _____/____ 15.0 Perform actions to verify areas outside the Protected Area are evacuated.

Signature: _____

Security Shift Commander

Date: _____

Title

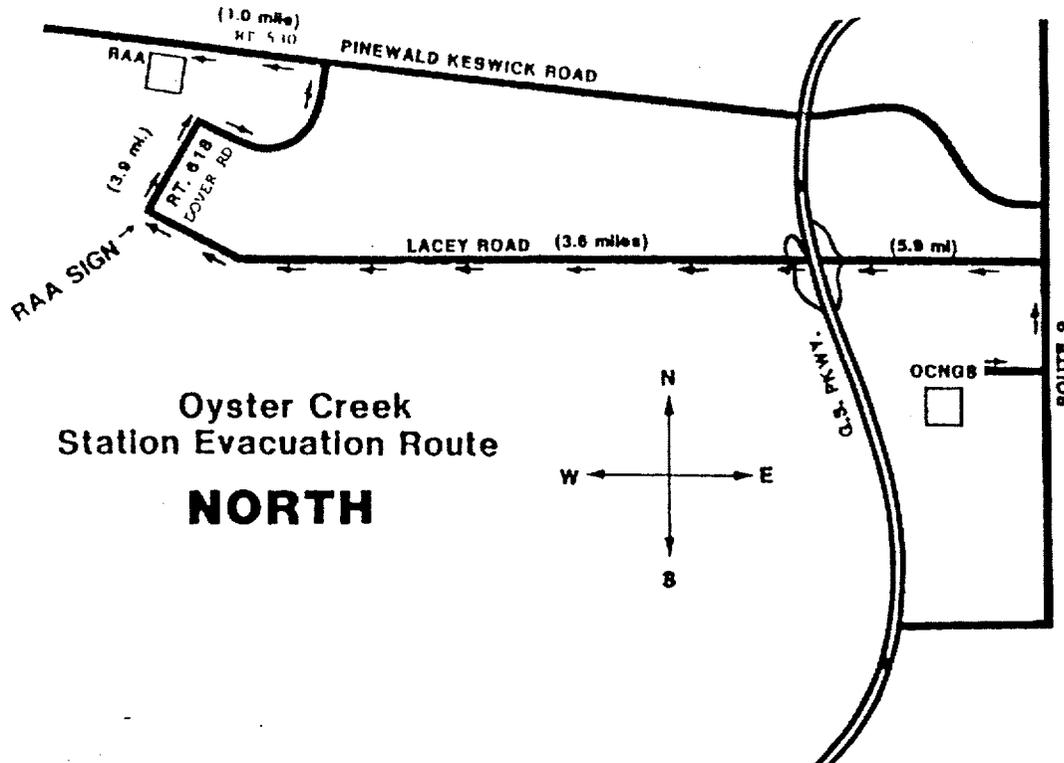
**SITE EVACUATION AND PERSONNEL MUSTERING AT REMOTE
ASSEMBLY AREAS**

Revision No.

9

EXHIBIT 2

STATION EVACUATION ROUTE NORTH



DEPARTURE INSTRUCTIONS

- A. Personnel are required to report to the Remote Assembly Area at GPU Energy Berkeley Operations Headquarters.
- B. Automobiles driven to the Remote Assembly Area will have at least 4 occupants.
- C. Windows and air vents must remain closed.
- D. Park as directed at the Remote Assembly Area.
- E. Muster with the Rad Pro Technician.

NORTH ROUTE

From OCGS go NORTH on Route 9 to the second stop light. Turn LEFT on Lacey Rd. At Rt. 618 (Dover Road) turn RIGHT. Turn LEFT on Route 530 to the Berkeley Operations HQ (on the left).

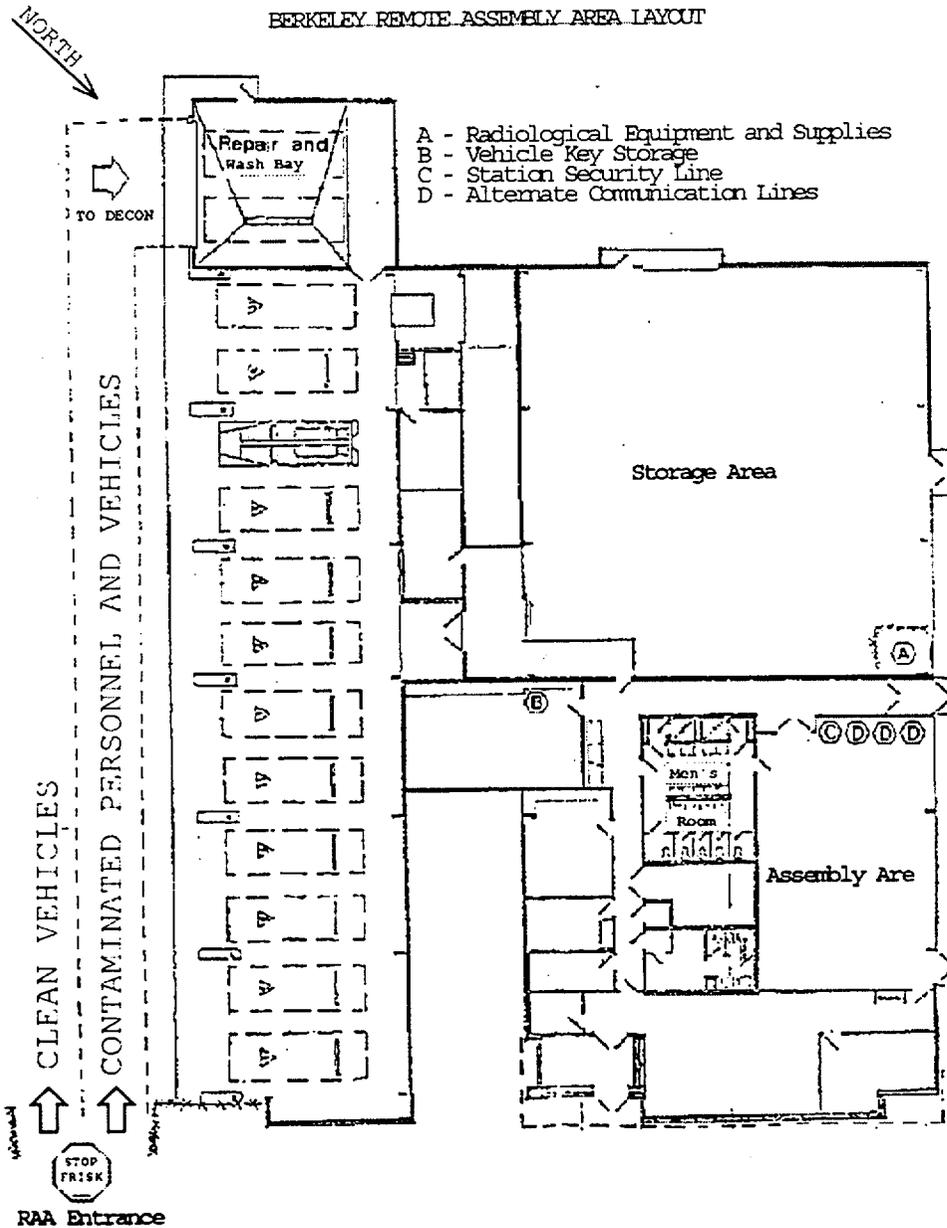
Title

**SITE EVACUATION AND PERSONNEL MUSTERING AT REMOTE
ASSEMBLY AREAS**

Revision No.

9

EXHIBIT 3



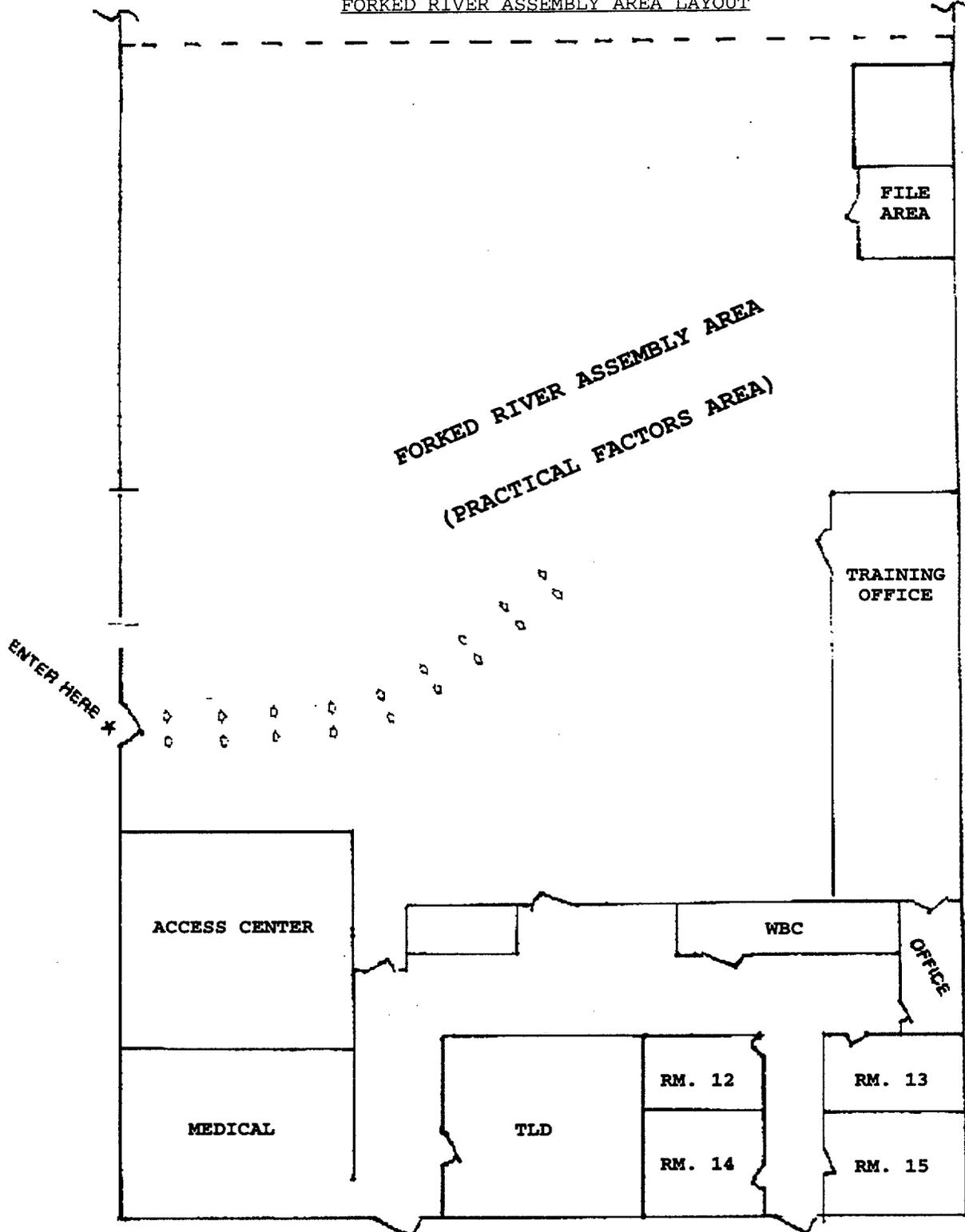
DEPARTURE INSTRUCTIONS

- A. Personnel are required to report to the Remote Assembly Area at GPU Energy Berkeley Operations.
- B. Automobiles driven to the Remote Assembly Area will have at least 4 occupants.
- C. Park as directed at the Remote Assembly Area.
- D. Muster with the Rad Protection Technician.

Title
**SITE EVACUATION AND PERSONNEL MUSTERING AT REMOTE
ASSEMBLY AREAS**

Revision No.
9

EXHIBIT 4
FORKED RIVER ASSEMBLY AREA LAYOUT



FORKED RIVER BUILDING 14

**OYSTER CREEK
EMERGENCY PREPAREDNESS
IMPLEMENTING PROCEDURE**

Number
EPIP-OC-.06

Title ADDITIONAL ASSISTANCE AND NOTIFICATION		Revision No. 26
Applicability/Scope Applies to work at Oyster Creek	Usage Level 2	Responsible Department Emergency Preparedness
This document is within QA plan scope Safety Reviews Required	<input checked="" type="checkbox"/> Yes ___ No <input checked="" type="checkbox"/> Yes ___ No	Effective Date 12/12/01

Prior Revision 25 incorporated the following Temporary Changes:

N/A

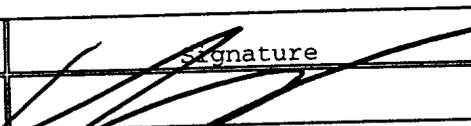
This Revision 26 incorporates the following Temporary Changes:

N/A

List of Pages (all pages rev'd to Rev. 26)

- 1.0 to 4.0
- E1-1 TO E1-2
- E2-1
- E3-1
- E4-1
- E5-1
- E6-1
- E7-1
- E8-1 to E8-5
- E9-1

**NON-CONTROLLED
THIS DOCUMENT WILL NOT
BE KEPT UP TO DATE
IRMC OYSTER CREEK**

	Signature	Concurring Organization Element	Date
Originator		Emergency Planner	12/3/01
Approved By	Mark Moore	Radiation Protection Manager	12/8/01

Title
ADDITIONAL ASSISTANCE AND NOTIFICATION

Revision No.
26

PROCEDURE HISTORY

REVISION	DATE	ORIGINATOR	SUMMARY OF CHANGE
8	6/94	A. Smith	Updated NRC telephone numbers and add document page.
9	07/94	A. Smith	Update Inpo telephone numbers.
10		A. Smith	Update NRC HPN telephone numbers.
11		A. Smith	Update phone numbers.
12	06/95	A. Smith	Update and remove phone numbers. Add Coordinator to Site Services title.
13	08/95	A. Smith	Update Inpo Telephone and Fax numbers.
14	08/95	A. Smith	Update BNE telephone numbers.
15	11/95	A. Smith	Update Ocean County Telephone Number.
16	04/96	A. Smith	Update Mgr. Plant Ops, Admin. Support EOF, ESD @ EOF, Nat'l. Weather, DOE, RMC and JIC OEM phone numbers.
17	03/97	A. Smith	Update GSS title to SSM, delete AEOF phone numbers, correct environmental affairs title, add OEM phone number for voice contact in addition to the existing fax phone number.
18	10/97	A. Smith	Update Area Codes. Also delete reference to EPIP-oc-.04 and the documentation of phone call for additional aviation support.
19	05/98	A. Smith	Add an exhibit for additional assistance request.
20	10/98	A. Smith	Add additional page to Exhibit 8A to provide generic instructions for requesting additional assistance.
21	08/99	A. Smith	Delete 732-244-4746 RAA Phone Number.
22	DOS	A. Smith	Change references from GPU to OCNCS.
23	11/00	A. Smith	Update phone numbers as a result of quarterly verification; non-substantive change.
24	12/00	A. Smith	Change NCR phone numbers to reflect new PBX lines which replace FTS-2000 lines.
25	09/01	A. Smith	Add phone number for Nuclear Duty Officer. Update S. Levy number.
26	11/01	A. Smith	Update phone numbers.

Title

ADDITIONAL ASSISTANCE AND NOTIFICATION

Revision No.

26

1.0 PURPOSE

To provide the Emergency Response Organization (ERO) personnel with a phone number directory of additional emergency response assistance from organizations and agencies.

2.0 APPLICABILITY/SCOPE

This document applies to all ERO personnel.

3.0 DEFINITIONS

None

4.0 RESPONSIBILITIES

4.1 Any ERO member may use this directory.

5.0 PROCEDURE

5.1 When additional assistance is required, refer to Section 7.0 for appropriate exhibit.

5.2 Refer to INPO Emergency Resources Manual for additional information concerning outside organizations and their contacts.

5.3 If assistance personnel are going to respond to the site, provide Group Leader - Administration with pertinent information including name, company, and social security number.

5.4 To obtain Emergency Aviation Support complete Exhibit 8. For other types of support complete Exhibit 8A.

5.4.1 The following personnel are authorized to request emergency aviation or other support as determined by the Emergency Director (senior person on shift) or Emergency Support Director.

- a. GSS/SSM Oyster Creek
- b. Emergency Preparedness Manager or Designee
- c. Group Leader Administrative Support
- d. ED/ESD Assistants

Title

ADDITIONAL ASSISTANCE AND NOTIFICATION

Revision No.

26

6.0 REFERENCES

6.1 INPO Emergency Resources Manual.

7.0 EXHIBITS

7.1 Exhibit 1 - Oyster Creek Onsite Emergency Response Directory.

7.2 Exhibit 2 - Offsite Emergency Response Directory.

7.3 Exhibit 3 - Emergency Telephone Numbers for NRC Notification.

7.4 Exhibit 4 - Federal Agencies

7.5 Exhibit 5 - State Agencies

7.6 Exhibit 6 - County/Local Agencies

7.7 Exhibit 7 - Support Agencies

7.8 Exhibit 8 - Emergency Aviation Support Instructions Form

7.9 Exhibit 8A - Additional Assistance Request

7.10 Exhibit 9 - Additional Assistance Responsibilities

Title	Revision No.
ADDITIONAL ASSISTANCE AND NOTIFICATION	26

EXHIBIT 1OYSTER CREEK EMERGENCY RESPONSE DIRECTORY

	<u>Work Phone No.</u>
<u>Dosimetry</u>	
TLD Room Clerk	(609)-971-4604
Supervisor	(609)-971-4467 (609)-971-4955
<u>Emergency Assembly Areas</u>	
OCAB	(609)-971-5276
OCAB	(609)-971-5277
Warehouse	(609)-971-4058
<u>Emergency Control Center (ECC) (Control Room)</u>	
Outside Lines	
Control Room	(609)-971-0335* (609)-971-0220* (609)-971-4959 (609)-971-4962 (609)-971-4666 (609)-971-4003
Control Room (PC Plant Status)	(609)-971-4667
Group Shift Supervisor/Site Shift Mgr.	(609)-971-4656
Group Operating Supervisor	(609)-971-4763
Computer Room	
<u>Emergency Preparedness Department</u>	
	(609)-971-2411 (609)-971-2237
<u>Environmental Affairs Dept.</u>	
	(609)-971-4022
<u>FORKED RIVER ASSEMBLY AREA GET Instructors Office</u>	
	(609)-971-1126*
<u>Instrument Shop</u>	
Shop area	(609)-971-5099
<u>MAINFRAME COMPUTER SUPPORT</u>	
	(215)-375-5555
<u>Medical Department</u>	
Nurse	(609)-971-4182
NRC Resident Inspector's Office	(609)-971-4978
Nuclear Duty Office	Pager (610)-912-2938 Office (610)-765-5441

* Direct dial. All others: Dial 9, then number.

Title	Revision No.
ADDITIONAL ASSISTANCE AND NOTIFICATION	26

EXHIBIT 1
(Continued)

OYSTER CREEK EMERGENCY RESPONSE DIRECTORY

	<u>Work Phone No.</u>
<u>Operations</u>	
Plant Manager Operations	(609)-971-4415
<u>Operations Support Center (OSC)</u>	(609)-971-4880
In Plant Ext.	(609)-971-4240
Outside Line	(609)-971-0976*
Radiological Controls	(609)-971-2568
Rad Con Technicians	(609)-971-4660
Rad Con Field Ops	(609)-971-4600
<u>Security Department</u>	
Security Shift Supervisor	(609)-971-4954
Central Alarm Station (CAS)	(609)-971-4957
Processing Center	(609)-971-4272
Main Gate	(609)-971-4950
North Gate	(609)-971-4608
Secondary Alarm Station (SAS)	(609)-971-4951
<u>Technical Support Center (TSC)</u>	
	(609)-971-4158
	(609)-971-4161
Outside Lines	(609)-971-0961*
	(609)-971-1379*
NRC Conference Room in TSC	(609)-971-4159
	(609)-971-4160
Outside Lines	(609)-971-1423*
	(609)-971-1433*
Rad Engineering	(609)-971-4156
<u>Transportation Department</u>	(609)-971-4128
<u>Whole Body Count</u>	(609)-971-4280

*Direct dial. All others: Dial 9, then number.

Title

ADDITIONAL ASSISTANCE AND NOTIFICATION

Revision No.

26

EXHIBIT 2

OFFSITE EMERGENCY RESPONSE DIRECTORY

<u>EOF, Operations Facility, Lakewood, New Jersey</u>	<u>Phone No.</u>
Admin. Support	(732)-901-2313 (732)-905-6574
Bureau of Nuclear Engineering (BNE)	(732)-370-8073 (732)-370-8083 - Fax
Emergency Support Director's Office	(732)-905-9007 (732)-367-8812 (732)-367-8814
Environmental Assessment Command Center (EACC)	(732)-367-8805 (732)-370-8990
Public Information	(732)-367-7130 (732)-367-8921
Radiological/Chemistry Support Security Technical Support	(732)-370-7310 (732)-370-1211 (732)-367-8771
<u>Joint Information Center - JIC</u>	(732)-901-2305 (732)-901-2333 (732)-901-2332
OEM at the JIC	(732)-364-2897 - Fax (732)-370-7332
<u>Parsippany Engineering Support</u>	(973)-316-7512 (973)-263-2009
<u>Remote Assembly Area (RAA)</u>	(732)-244-4714 (732)-244-4742 (732)-244-4754

Title

ADDITIONAL ASSISTANCE AND NOTIFICATION

Revision No.

26EXHIBIT 3EMERGENCY TELEPHONE NUMBERS FOR NRC NOTIFICATION

	<u>TELEPHONE NUMBER</u>
NRC Operations Center (via White Flint North, Rockville)	9-1-800-532-3469
NRC Operations Center Back Up Number	9-1-800-449-3694
NRC Headquarters Operator	9-1-800-532-3469
Oyster Creek Resident Inspector's Office	(609)-971-4978

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EXHIBIT 4

OFFSITE EMERGENCY RESPONSE DIRECTORY

FEDERAL AGENCIES

NRC Rockville, Maryland	Primary	9-1-800-532-3469
	Back Up	9-1-800-449-3694
	Telecopier	(301)-816-5151
Region I		(610)-337-5000
		(610)-337-5128
	after 1700 hours	9-1-800-532-3469
NRC/HPN Headquarters	Main	9-1-800-532-3469
	Back Up	9-1-800-449-3694

NOTE

To establish communications with NRC Health Physics Network you must dial the main or backup numbers for NRC Headquarters. Inform the NRC OPS Officer that you are establishing HPN communications and the officer will connect you.

Coast Guard (Water Pollution Response)	(718)-354-4121
	(718)-354-4137
	(718)-354-4136
	(718)-354-4138
Department of the Army, 60th Ord. Detachment	(609)-562-4250
	(609)-562-6156
Department of Energy (DOE) (24 Hours)	(631)-344-2200
FBI (Federal Bureau of Investigation, Newark, NJ)	(973)-622-5613
National Weather Service (Recording)	(609)-261-6600

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EXHIBIT 5OFFSITE EMERGENCY RESPONSE DIRECTORYSTATE AGENCIES

Major/Director OEM	(609)-538-6050
EOC Representative	(609)-538-6008
Bureau of Nuclear Engineering (BNE)	(609)-984-7700
24 Hour Hotline (Trenton Dispatch)	(609)-292-7172
BNE Field Command Trailers	(732)-341-4685 (732)-349-8349 (732)-349-6814 (732)-349-6721 (732)-349-6923 (Fax)
Department of Environmental Protection Assistant Director - Rad Protection	(609)-984-5636
Department of Health	(609)-984-1863 (609)-292-6789
<u>NJ Marine Police</u>	
NJ State Police, Marine Bureau	(732)-899-5052
Atlantic City, State Police Marine Division	(609)-296-5807 (609)-296-5808
Marine Law Enforcement Bureau (Point Pleasant)	(732)-899-5050 (732)-899-5051 (732)-899-5052
OEM - Office of Emergency Management, NJ	(609)-882-4201

NOTE

For OEM notifications after 4 p.m., weekends and
Holidays ask for State EOC.

State Police, New Jersey (609)-296-3131

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EXHIBIT 6

OFFSITE EMERGENCY RESPONSE DIRECTORY

COUNTY/LOCAL AGENCIES

Civil Defense, Ocean County Radiological Office	(732)-341-3451
Emergency Radio and Police, Ocean County Teletype Network 24 Hrs.	(732)-349-9100
OEM, Ocean County	(732)-341-3451
Civil Defense and Disaster Control, Lacey Township	(609)-693-6637
Civil Defense and Disaster Control, Ocean Township	(609)-693-4006
Fire Department, Lacey	(609)-693-6636
Hospitals:	
Community Medical Center Main Switchboard	(732)-240-8000
Southern Ocean County Hospital Main Switchboard	(609)-597-6011
Lacey Police	(609)-693-6636
Rescue Squad, Lacey	(609)-693-6636
Lakewood Police	(732)-363-0200

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EXHIBIT 7

OFFSITE EMERGENCY RESPONSE DIRECTORY

SUPPORT AGENCIES

American Nuclear Insurers (ANI)	(860)-561-3433
*Babcock & Wilcox NNF Research Laboratory	(804)-522-5833
*General Electric Company	(408)-971-1038
Institute of Nuclear Power Operations (INPO) (For assistance for professional and technical expertise, refer to INPO Emergency Resources Manual located in the ECC and EOF).	(800)-321-0614 (770)-644-8549 (Fax) (770)-644-8567 (Fax)
Radiation Management Consultants (RMC) (24hr) (8 to 5)	(215)-243-2990 (215)-824-1300
*Horsham Valley Airways, Inc.	(215)-674-2100 working hours (215)-674-2101 after hours (215)-578-6466 pager
*S. Levy Incorporated (8 to 5) (If no answer call one of the numbers listed below)	(408)-558-370-2804

*If activated contact Contracts Department to arrange for payment.

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EXHIBIT 8

EMERGENCY AVIATION SUPPORT INSTRUCTION FORM

___ 1.1 Request for Aviation Support Authorized by:

Title: _____

Name: _____ Signature: _____

___ 1.2 Contact Horsham Valley Airways, Inc.

(215)-674-2100 working hours
(215)-574-2101 after hours
(215)-578-6466 pager

Identify yourself by title and name. Record the date and time and name of the person contacted:

Name: _____

Time and Date: _____ / _____

___ 1.3 Describe the extent of the emergency aviation support needed.

___ 1.4 Provide the Aviation Support Contractor with the location of the pick up and destination.

1.4.1 Record the location and cargo to be picked up, as well as the estimated time of arrival at the pick up site.

(Location)

(Cargo)

(Estimated Time of Arrival)

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EXHIBIT 8

(Continued)

EMERGENCY AVIATION SUPPORT INSTRUCTION FORM

1.4.2 Record the destination of the cargo from Step 1.4.1 and estimated time of arrival.

_____ (Cargo)

_____ (Estimated Time of Arrival)

- ___ 1.5 Arrangements have been made to deliver the cargo to the pick up site by the estimated arrival time.
- ___ 1.6 Arrangements have been made to pick up the cargo at the destination by the estimated arrival time.
- ___ 1.7 Upon completion of emergency aviation requirements, notify the aviation services contractor to terminate services. Record the name of the individual and the time of the notification.

_____ (Name) _____ Date/Time

Title

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EXHIBIT 8
(Continued)

Oyster Creek Aviation Facility Information Form

1. Airports
 - a. Miller Air Park located west of Toms River on Pinewald-Keswick Road.
2. Heliports
 - a. Onsite heliport is designated as FAA Site Number H-205 and is equipped with a wind sock but no lights.

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EXHIBIT 8A

GENERIC INSTRUCTIONS FOR REQUESTING
ADDITIONAL ASSISTANCE

When requesting additional assistance from outside agencies or other vendors, contractors or utilities the following should be considered as appropriate or if applicable:

1. Provide the requested organization with information pertaining to site admission procedures. i.e. contact the access center for processing personnel to the site and coordinate between OCNGS and the organization.
2. Provide the OCNGS contact name and telephone number of who will coordinate the arrival of requested organization.
3. Identify potential airports for chartered aircraft arrival as requested from the organization.
4. Assist the requested organization with transportation and escort as applicable to the event. i.e. work with the New Jersey State Police to minimize delays for the organization, request clearances and escorts as appropriate.

NOTE

When requesting services from GE Nuclear Energy, BWR Nuclear Emergency support program, it is important not to activate the program during DRILLS. For drills the GE security officer is now authorized to confirm contact with GE Nuclear without requiring a return phone call from the GE Nuclear Energy Duty Manager.

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EXHIBIT 8A
(continued)

Additional Assistance Request

"This is not a drill - I repeat, This is not a drill"

- or -

"This is a drill - This is a drill"

NOTE

One major source for obtaining assistance is the INPO Emergency Resources Manual which is located in the GSS/SMM office, ESD's office and the TSC.

1. This is _____ At Oyster Creek Nuclear Generating
Name/Title
Station we have declared a _____ at _____ hours
Type of Emergency Time

Oyster Creek request your assistance as follows:

Identify the problem and give a brief description: _____

Identify necessary personnel/equipment needed and request assistance _____

Identify telephone number that can be used by the assisting organization on which to return follow up information as appropriate _____
Area Code Telephone Number

List the company or agency called for assistance: _____

Follow up with the requested organization as appropriate to ensure an expedient arrival, refer to the generic instructions in this exhibit.

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EXHIBIT 9

ADDITIONAL ASSISTANCE RESPONSIBILITIES

Expertise Needed

Contact

Operations
Management

ESD Assistant - EOF

Engineering
Radiological Protection
Environmental Controls

TSC Coordinator
R.A.C.
Environmental Assessment
Coordinator

Maintenance
Security

OSC Coordinator
Security Shift Commander

Safety

OSC Coordinator

Administrative

Gr. Ldr. Admin. - EOF

Communications

OSC Coordinator

**OYSTER CREEK
EMERGENCY PREPAREDNESS
IMPLEMENTING PROCEDURE**

Number
EPIP-OC-.10

Title Emergency Radiological Surveys Onsite		Revision No. 12
Applicability/Scope Applies to work at Oyster Creek	Usage Level 2	Responsible Department Emergency Preparedness
This document is within QA plan scope <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 50.59 Reviews Required <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Effective Date 12/12/01

Prior Revision 11 incorporated the following Temporary Changes:

N/A

This Revision 12 incorporates the following Temporary Changes:

N/A

List of Pages (all pgs. rev'd to Rev. 12)

- 1.0 to 6.0
- E1-1 to E1-2
- E2-1
- E3-1
- E4-1
- E5-1
- E6-1 to E6-2
- E7-1
- E8-1
- E9-1
- E10-1
- E11-1
- E12-1
- E13-1

**NON-CONTROLLED
THIS DOCUMENT WILL NOT
BE KEPT UP TO DATE
IRMC OYSTER CREEK**

	Signature	Concurring Organization Element	Date
Originator		Emergency Planner	12/5/01
Approved By		Radiation Protection Manager	12/8/01

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PROCEDURE HISTORY

REV	DATE	ORIGINATOR	SUMMARY OF CHANGE
3	12/94	A. Smith	Add Document History page and correct numbering on Exhibits 18 through 23.
4	09/95	J. Bontempo	Use cellular phones as primary communications for FMT's.
5	01/96	J. Bontempo	Correct references to Exhibits 8 through 21 (previously 9 through 22).
6	03/97	A. Smith	Allow RAC to perform the RCC duties, update survey maps, delete Exhibit 13, recovery of radio communications due to cell phones being primary mode of comm.
D	06/97	J.W. Rayment	Draft - when ready to be rev'd don't forget to put In your summary of change.
7	09/98	J.W. Rayment	<ul style="list-style-type: none"> •Add initial spaces to section 4.2, delete initial spaces from exhibits 1, 2, & 4. •Allow use of normal Rad Con procedures for surveys. <ul style="list-style-type: none"> •Change exhibits to reflect normal procedures. •Delete exhibits that do not reflect normal procedures. •Change 1/4 mile offsite map to be more accurate. •Change air sampling default to 1 minute samples. •Change air sampler to Lo volume instead of Hi volume.
8	10/99	A. Smith	Update phone numbers for field teams. Remove reference to EPIP-OC-.04, this procedure was deleted.
9	12/99	G. Seals	Procedure does not comply with minimum detectable activity requirements of NUREG 0654.
10	DOS	A. Smith	Change reference from GPU or GPUN to OCNGS
11	06/01	R. Finicle	Changed Safety Review Required from "yes" to "no" on the cover page. Changed the title "GRCS" to "on-shift Radiological Assessment Coordinator. Update DC Air Sample info. Update vehicle usage.
12	11/01	A. Smith	Remove reference to EPIP-OC-.04.

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1.0 PURPOSE

1.1 This procedure describes the responsibilities and duties of personnel involved in the conduct of Onsite Radiological/Environmental Monitoring.

2.0 APPLICABILITY/SCOPE

2.1 This procedure applies to all emergency response personnel involved in Onsite Radiological/Environmental Monitoring Team activities.

2.2 This procedure is to be initiated upon any of the following conditions:

2.2.1 Alert, Site Area Emergency or General Emergency as determined by Procedure EPIP-OC-.01, Classification of Emergency Conditions.

2.2.2 Upon direction of the Emergency Director.

3.0 DEFINITIONS

3.1 None

4.0 RESPONSIBILITIES

4.1 Onsite RAC

4.1.1 The RAC may perform the responsibilities of the RCC. If that occurs, FMT activities will be reported to the RAC directly until there are personnel resources available to station the RCC function separately. When the resources are available, the RAC may transfer onsite FMT activities to the RCC.

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4.2 Onsite Radiological/Environmental Survey Teams

- 4.2.1 The Onsite Radiological/Environmental Survey Team communicates directly to the RAC/RCC and is responsible for conducting emergency radiological monitoring within the Protected Area and up to 1/4 mile perimeter from the site boundary
(Exhibit 12, 1/4 mile Offsite Map).

NOTE

The Onsite Radiological/Environmental Survey Team may be directed beyond the 1/4 mile perimeter to perform offsite radiological monitoring until the Offsite Radiological/Environmental Survey Teams are fully manned and ready to be deployed.

NOTE

Offsite monitoring points are found in Exhibit 12 of Procedure EPIP-OC-.11, Offsite Radiological Environmental Surveys.

INITIALS

- 4.2.2 Team members shall assemble and complete actions identified in
_____ Exhibit 1, "Team Assembly and Formation".
- 4.2.3 Team members shall obtain monitoring instruments and equipment
_____ utilizing Exhibit 2, "Monitoring Instruments and Equipment".
- 4.2.4 Team members shall conduct air sampler pre-operational checks in accordance with Reference 6.8. Also, utilizing Exhibit 3,
_____ "Emergency Air Sampling".
- 4.2.5 Team members shall prepare the vehicle by completing action identified in Exhibit 4, "Vehicle Preparation".

- 4.2.6 Team members shall utilize survey instruments during cold weather by completing actions identified in Exhibit 5, "Cold Weather Instrument Operations".

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INITIALS

4.2.7 Team members shall conduct onsite surveys utilizing Exhibit 6,
"Conducting on Site Surveys" when so directed.
(Refer to Exhibit 10 and Exhibit 13).

4.2.8 Team members shall terminate monitoring activities by completing actions identified in Exhibit 7, "Termination of Monitoring Activities".

4.3 If the onsite team is dispatched offsite beyond the 1/4 mile radius, the team shall suspend use of this procedure and implement the appropriate sections of EPIP-OC-.11 for conducting surveys and collection of air samples.

5.0 PROCEDURE

5.1 Onsite Radiological/Environmental Survey Team(s) members shall implement this procedure during an emergency.

6.0 REFERENCES

- 6.1 2000-PLN-1300.01, OCNCS Emergency Plan.
- 6.2 OEP-ADM-1319.02, Emergency Response Facilities and Equipment Maintenance.
- 6.3 EPIP-OC-.01, Classification of Emergency Conditions.
- 6.4 Memorandum 9502-88-0098, Field Measurement of Airborne Releases of Radioactive Material, G.M. Lodde, May 25, 1988.
- 6.5 Radiological/Industrial Safety and Health Awareness Report, 89-027, 9-25-89.
- 6.6 6630-ADM-4200.01, Radiological Surveys.
- 6.7 6630-ADM-4212.01, Air Sample Collection and Analysis.

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7.0 EXHIBITS

- 7.1 Exhibit 1, Team Assembly and Formation
- 7.2 Exhibit 2, Monitoring Instruments and Equipment
- 7.3 Exhibit 3, Emergency Air Sampling
- 7.4 Exhibit 4, Vehicle Preparation
- 7.5 Exhibit 5, Cold Weather Instrument Operations
- 7.6 Exhibit 6, Conducting On-Site Surveys
- 7.7 Exhibit 7, Termination of Monitoring Activities
- 7.8 Exhibit 8, Onsite Emergency Monitoring Points
- 7.9 Exhibit 9, Onsite Monitoring Point Map
- 7.10 Exhibit 10, Sample Record
- 7.11 Exhibit 11, Air Activity (Iodine) Nomogram
- 7.12 Exhibit 12, Approx. 1/4 Mile Offsite Map
- 7.13 Exhibit 13, Survey Form

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EXHIBIT 1

TEAM ASSEMBLY AND FORMATION

- 1.0 The Onsite Radiological/Environmental Survey Team will consist of two (2) team members. At least one member shall be a Radiological Controls Technician who shall be designated Team Leader.
- 2.0 The Onsite Radiological/Environmental Survey Team shall mobilize, and report as directed by the RAC/RCC.
- 3.0 Obtain the emergency monitoring vehicle key. If the key is not available, a backup key may be obtained from the guard at the Main Gate Processing Center.
 - 3.1 Obtain cellular phone from On-Shift Radiological Assessment Coordinator lock box as primary mode of communications.
 - 3.2 Obtain a portable radio for back up communications (Channel 1 would be used).
 - 3.3 Team members shall conduct cell phone communications (primary) or radio communications (secondary) observing appropriate Radio Communications Protocol.

TEAM MEMBERS

<u>NAME</u>	<u>SSN</u>	<u>AVAILABLE DOSE</u>
_____ (Team Leader)	_____	_____
_____	_____	_____
_____	_____	_____

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EXHIBIT 1
(continued)

TEAM ASSEMBLY AND FORMATION

NOTE

When operating the phone while in vehicle pedestal the vehicle must be on or the key in the accessory mode in order for the phone to be unlocked, then speed dial can be accomplished. When phone is hand held it operates normally.

3.3 The following is a list of locations, speed dial codes and actual phone numbers used by field teams and their respective contact.

<u>LOCATION</u>	<u>SPEED DIAL</u>	<u>PHONE #</u>
RAC/ECC	01	609-971-0335
RAC/TSC	02	609-971-4156
EAC/EACC	03	732-367-8805
	*	732-370-8990
FMT "A"	04	609-457-3560
FMT "B"	05	609-457-3441
FMT "C"	06	609-457-1525
ONSITE FMT	07	609-457-3592
RCC/OSC	08	609-971-4880
EMERG.	09	911
ECC	10	609-971-4666
*732-370-8990 Dial Manually		

4.0 If the vehicle is not available, contact Security to obtain keys for any on-site vehicle and proceed with FMT response.

5.0 If a vehicle cannot be located or returned immediately, inform the RCC/RAC and request further guidance.

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EXHIBIT 2

MONITORING INSTRUMENTS AND EQUIPMENT

- 1.0 The onsite Radiological Survey Team shall ensure the following instruments are available in the onsite van or obtain them, From: (ie. Rad Con Count Room, Radiac Trailer, the OSC monitoring instrument locker), and perform the pre-operational checks as required.

NOTE

OP CS-137 check source is in emergency locker for use if Pre Op checks have not been done already.

- 1.1 One (1) doserate survey instrument with capability of measuring 0.2 mR/hr and greater and capable of determining Beta readings.
- 1.2 One (1) countrate survey instrument with a pancake style probe.
- 1.3 One (1) air sampler (Lo Vol RAS Pump)
- 1.4 One (1) DC air sampler

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EXHIBIT 3

EMERGENCY AIR SAMPLING

NOTE 1

Silver zeolite cartridges to be used for all samples.

NOTE 2

Flow rate on all samples to be 50-62 lpm.

NOTE 3

Verify operation of power inverter in van prior to use.

Initials

1.0 DC Air Sampler Use

- 1.1 Ensure the 2 position switch (off-run) is in the OFF position.
- 1.2 Connect the air sampler directly to the vehicle's battery terminals via connection on bumper or grille.
- 1.4 Turn ON A/S and adjust flow as needed.
- 1.5 Turn OFF A/S and disconnect from the vehicle.

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EXHIBIT 4

VEHICLE PREPARATION

- 1.0 Verify emergency equipment lockers/kits are locked or sealed.
- 2.0 If the emergency locks are not locked or sealed, conduct an inventory using inventory checklist from Procedure OEP-ADM-1319.02, Emergency Response Facilities and Equipment Maintenance. (Appendix B-2).
- 3.0 Perform radio check with RAC/RCC.
- 4.0 Log any deficiencies and report information to RAC/RCC.

NOTE

Team members shall log into Rem-On-Line System or initiate a control point admission ticket. (An ESRD or a 0-200 mR and a 0-1500 mR SRD required.)

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EXHIBIT 5

COLD WEATHER INSTRUMENT OPERATIONS

- 1.0 Caution must be observed to ensure instrument operation is not affected by extreme cold temperatures.
- 2.0 If ambient temperature is above 32°F (0°C), instrument use is unlimited.
- 3.0 If ambient temperature is below 32°F (0°C), continuous instrument use should be limited as follows:

<u>Temperature</u>	<u>Continuous Operating Time</u>
0 - 32°F [(-18°C) - (0°C)]	5 minutes
-20° - 0°F [(-28°C) - (-18°C)]	2 minutes

- 4.0 For operation in temperatures below 32°F (0°C), a battery check should be performed before and after each measurement.
 - 4.1 If the battery check fails in either case, the measurement is not valid.
 - 4.2 Return the instrument to the vehicle and allow the batteries to warm up.
 - 4.3 Repeat the measurement as required.

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EXHIBIT 6

CONDUCTING ON-SITE SURVEYS

- 1.0 If the On-Site Team is dispatched Off-Site beyond the 1/4 mile radius, suspend use of this procedure and implement appropriate sections of EPIP-OC-.11 for surveys.
- 2.0 The intent is to keep the vehicle within the Protected Area whenever possible. Monitoring Points ESE, SE, and SSE are outside the Protected Area. Due to the time required to enter and exit the Protected Area, verify with the OSC that those monitoring points are required.
- 3.0 Exhibit 8, "Onsite Emergency Monitoring Points" (describes the onsite locations).
- 4.0 Exhibit 9, "Onsite Monitoring Point Map" (identifies these locations).
- 5.0 Perform and document onsite surveys in accordance with established Rad Con procedures. (Exhibit 13: Survey Form - Example - Equivalent Form may be used).
 - 5.1 A baseline perimeter survey should be performed when team is dispatched.
 - 5.2 Perform surveys at the discretion of the RAC/RCC.
 - 5.3 Identify on Survey Form whether survey location may be within the plume or not.
 - 5.3.1 If open window reading is >110% of closed window reading, uncorrected, survey location may be within the plume.
 - 5.4 Label all samples, (smears, air samples, water samples, etc.), with appropriate information (time, location, etc.).

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EXHIBIT 6
(continued)

CONDUCTING ON-SITE SURVEYS

- 5.5 Refer to Exhibit 11, "Air Activity (Iodine) Nomogram", for field counting iodine air samples to estimate air iodine activity.
- 5.6 Document Survey on Exhibit 13 or Equivalent Form; any water, soil, or air samples to be documented on Exhibit 10 - sample record.
- 5.7 Communicate all survey results to the RCC/RAC as soon as practical.

NOTE 1

Draw a 5 minute minimum air sample at 25 LPM. (20-30 LPM) as indicated on the scale if possible using a watch, stopwatch or time to measure the time duration unless otherwise directed by the RAC/EAC. Sample time based on Rad. Eng. Calc. 2820-01-004.

NOTE 2

In the event that the E-van or a team member becomes contaminated, notify the RCC/RAC for a replacement or directions.

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EXHIBIT 7

TERMINATION OF MONITORING ACTIVITIES

INITIALS

- 1.0 Upon direction of the RAC/RCC to cease monitoring activities.
- 1.1 Transport field monitoring samples to the Rad Con Counting Room or as directed by the RAC/RCC.
- 1.2 Log off the Rem-On-Line system as appropriate.
- 1.3 Inventory and return to storage all the emergency monitoring equipment in accordance with Appendix B of OEP-ADM-1319.02, "Emergency Response Facilities and Equipment Maintenance".
- 1.4 Return vehicle and keys to assigned location.
- 1.5 Submit team logs and data forms to RAC/RCC for his review and subsequent filing with the Document Control Center.

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EXHIBIT 8

ONSITE EMERGENCY MONITORING POINTS

<u>Sector</u>	<u>Location</u>	<u>Description</u>
1	N	RCA perimeter road - west of Gate 8
2	NNE	RCA perimeter road - south side of Materials Warehouse
3	NE	RCA perimeter road - east side, halfway between Gate 20 and Materials Warehouse
4	ENE	RCA perimeter road - east side at Gate 20
5	E	RCA perimeter road - south east corner at AOG Building
6	ESE	Main site access road - directly south of AOG Building
7	SE	Main parking lot - first row directly south of Fuel Oil Storage Tank
8	SSE	Main parking log driveway at Main Gate 1
9	S	Auxiliary Office Building eastside adjacent to door
10	SSW	Auxiliary Office Building - westside adjacent to door
11	SW	Diesel Generator Building - eastside adjacent to door
12	WSW	Access road - westside Protected Area, west of transformers
13	W	Access road - westside Protected Area, west of demineralizer water storage tank
14	WNW	Access road - northwest corner, west of Torus Water Storage Tank
15	NW	Access road - adjacent to Gate 10A
16	NNW	Access road - halfway between North Guard House and Materials Warehouse, south of LLRW west corner

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EXHIBIT 9

Onsite Monitoring Point Map

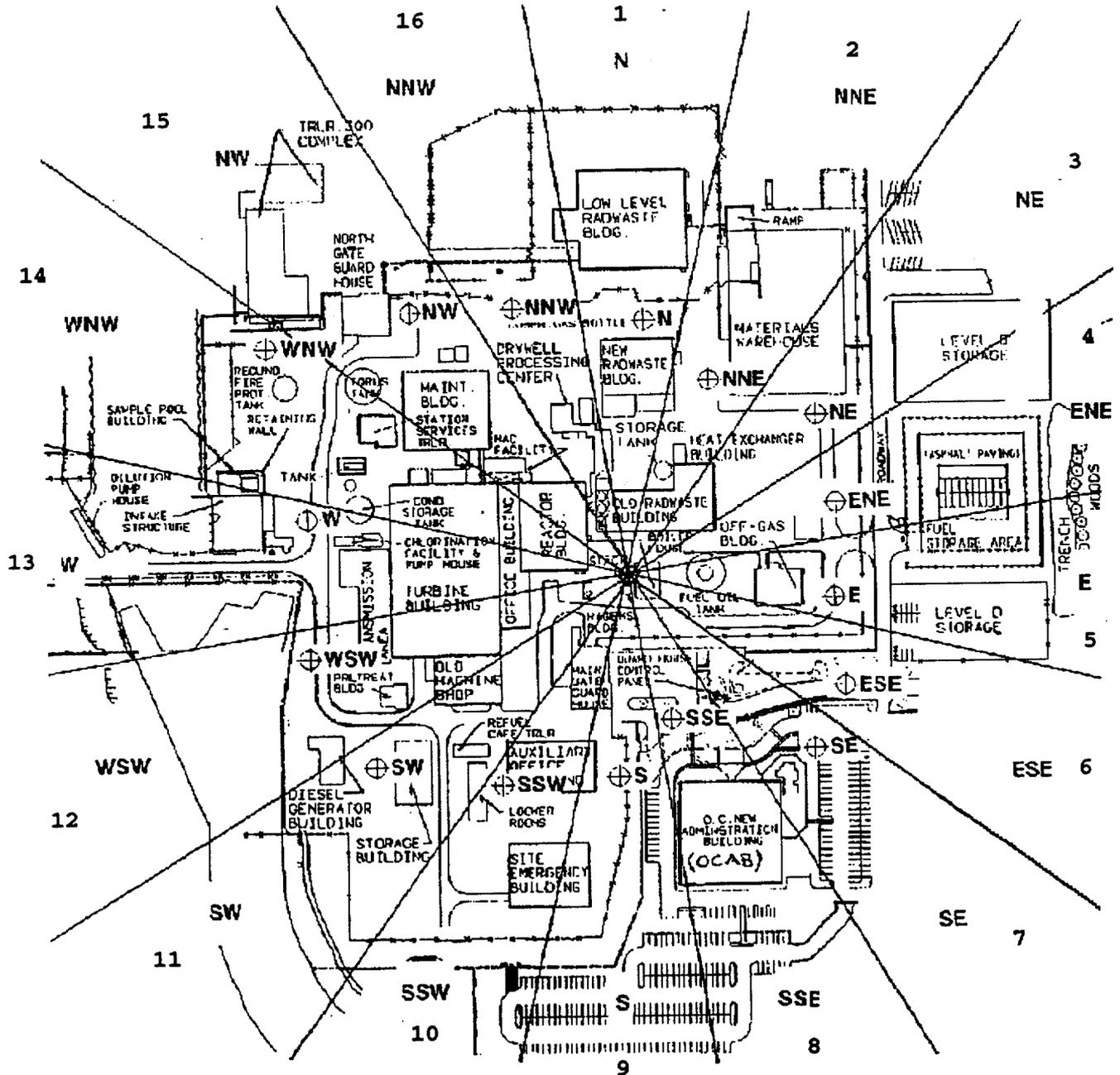


EXHIBIT 10
Sample Record

Procedure EPIP-OC-10
Rev. 12

DATE: _____

#	TIME	LOCATION	SURVEY		AIR SAMPLE				
			WINDOW CLOSED mr/hr	WINDOW OPEN mr/hr	BKG cpm	PART cpm	SILVER ZEOLITE cpm	FLOW RATE LPM	RUN TIME Min
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

E10-1

AIR SAMPLER TYPE _____ SERIAL NO. _____ CAL. DUE _____

COUNTING INST. TYPE _____ SERIAL NO. _____ CAL. DUE _____

SIGNED _____
TEAM LEADER

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12EXHIBIT 11AIR ACTIVITY (IODINE)

- 5.5 A rough idea of the approximate iodine concentration and DAC value can be obtained from the table below:

NET CPM	IODINE CONC (uCi/cc)	# of DAC's
100	9E-8	4.5
500	5E-7	25
1000	9E-7	45
5000	5E-6	250
10000	9E-6	450
50000	5E-5	2500

NOTE

This table is based on 5 minute sample times @ 25 LPM. Divide concentration and # of DAC's for all other sample times. The table is intended to give field teams a rough idea of what they are encountering. This data should not be used to make dose projections for the general public.

AmerGen

An Exelon/British Energy Company

**OYSTER CREEK
EMERGENCY PREPAREDNESS
IMPLEMENTING PROCEDURE**

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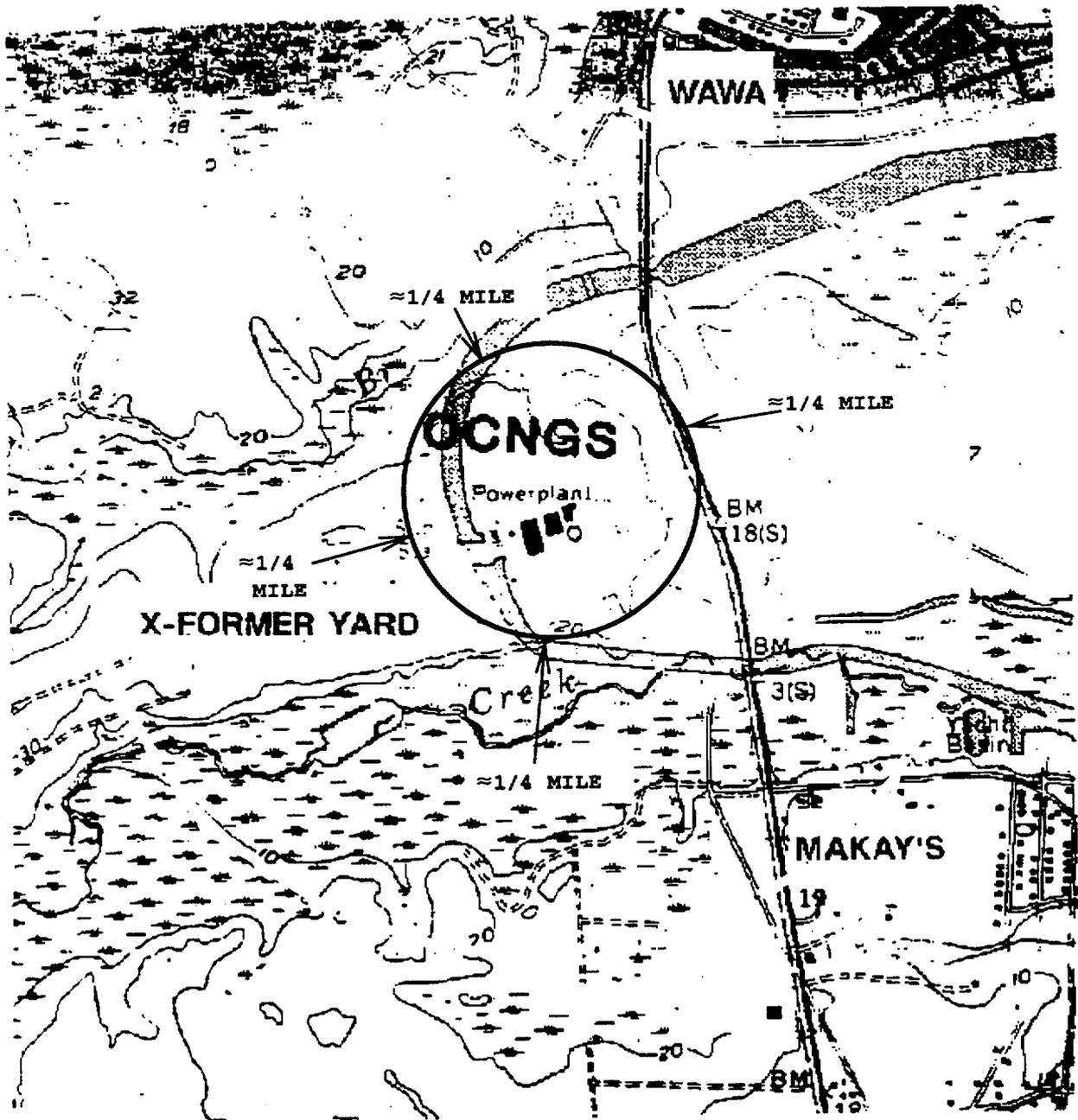
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EXHIBIT 12

APPROX. 1/4 MILE OFFSITE MAP



OCNGS RADIOLOGICAL SURVEY										Date	Time	Location																																																																																																																																																																																				
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NOTE: REFER TO EPIP-OC-10 EXHIBITS 8 & 9 FOR SURVEY LOCATIONS & DESCRIPTIONS

REMARKS

EXHIBIT 13
SURVEY FORM