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January 31, 2000

U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Grand Gulf Nuclear Station  
Unit 1  
Docket No. 50-416  
License No. NPF-29  
Changes to Emergency Plan Implementing Procedure

GNRO-2000/00003

Gentlemen:

Entergy Operations, Inc. submits in accordance with 10CFR50 Appendix E, Section V changes to an Emergency Plan Implementing Procedure. This procedure was previously submitted via GNRO-99/00089 on November 18, 1999.

The following Emergency Plan Procedure is attached:

<u>Procedure No.</u>	<u>Issue Date</u>
10-S-01-1, Rev. 105 (Corrected Copy)	10/28/99

During typing of this procedure a NOTE (6.1.4.b), located at the top of page 7, was inadvertently omitted in the last submittal. A corrected copy of procedure 10-S-01-1, Rev. 105 was reissued with the deficiency corrected.

Should you have any questions or concerns regarding the attachment, please contact Mr. W. B. Abraham at (601) 437-2319.

Yours truly,

JCR/WBA/amt

attachment: 10-S-01-1, "Activation of the Emergency Plan"  
cc: (See Next Page)

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GNRO-2000/00003

Page 2 of 2

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PLANT OPERATIONS MANUAL

Volume 10

10-S-01-1

Section 01

Revision: 105

Date: 10/28/99

EMERGENCY PLAN PROCEDURE

ACTIVATION OF THE EMERGENCY PLAN

SAFETY RELATED

Prepared: K. McDonald

Reviewed: Beverly A. Raines, R. G. Hudson  
Technical Quality Programs

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Approved: Joe Venable, [Signature]  
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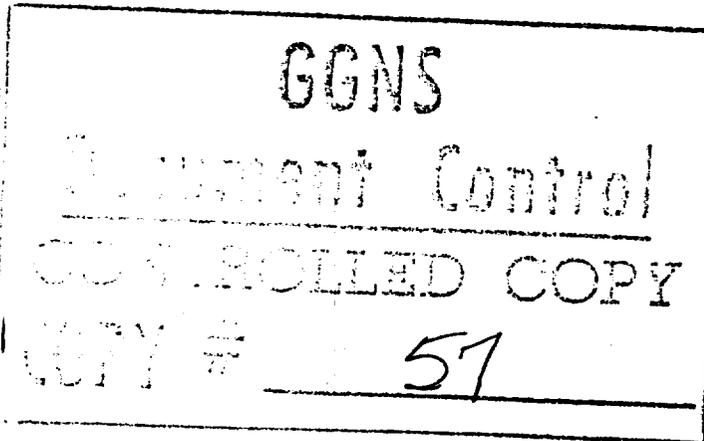
List of Effective Pages:

Pages 1-11

Attachments I, II, IV

List of TCNs Incorporated:

<u>Revision</u>	<u>TCN</u>
1-4	None
5	1,2
6	3
7	4
8	5,6
9	None
10	7,8
11	None
12	9
13	10
14,15	None
16	11
17	None
18	12
19	None
20	None
21	None
22	13,14
23	None
100	15
101	None
102	16
103	None
104	None
105	None



## EVALUATION FOR EMERGENCY PREPAREDNESS PROCEDURE

Procedure number 10-S-01-1, Rev. 105

### Proposed Change:

1. Change date in step 4.4 to current revision date.

Justification: Editorial, attachment IV has steps to be revised, therefore revision date must be changed.

2. Add step 5.33, definition of "Vital Areas".

Justification: Editorial, vital areas is referenced several times throughout this procedure with no reference as to what the definition of a vital area is. Definition obtained from lesson plan for Plant Access Training (PAT) and unclassified security material.

3. Changes step 6.1.4.i(3) from requiring a Site Evacuation at the declaration of a SAE or GE to seriously considering a Site Evacuation.

Justification: There could be circumstances where a SAE or GE is declared and it would not be in the best interest for the health and safety of plant personnel to have them evacuate the site. Examples; Security Emergency or severe natural event. Therefore the Emergency Director should consider each event and base the site evacuation on the health and safety of the evacuees.

4. Remove the definition of the HCLL and MCWLL curves from the bottom of page 8 of attachment I.

Justification: HCLL and MCWLL Curves were removed from the Emergency Protection Procedures in an earlier revision.

5. Change EAL 14.3.1 of the Site Area Emergency classification page 19 of Attachment I: add "or vital areas" to the EAL for the initiating condition "Imminent loss of physical control of the plant".

Justification: The EAL for an ALERT classification for an "Ongoing security compromise" initiating condition contains "vital areas" as an area of the plant that is not being controlled by adversaries attacking the plant. However, the EAL for the Site Area Emergency during a security event where loss of physical control of the plant is imminent does not address vital areas. Based on the definition of vital area, if loss of physical control of a vital area is imminent then a SAE should be declared.

6. Change EAL 14.4.1 of the General Emergency classification page 19 of Attachment I: Change to read as follows; Physical attack on the plant has resulted in unauthorized personnel controlling Decay Heat Removal, Reactor Water Level or Reactivity Control capability.

Justification: Current EAL reads "Physical attack on the plant has resulted in unauthorized personnel occupying the Control Room or Remote Shutdown Panel." With the addition of the alternate shutdown panels and control room disconnect relay panel, unauthorized personnel could have control of the control room or the remote shutdown panel and still not have the capability to physically damage the core. If physical control of reactor reactivity, decay heat removal and reactor water level is not compromised then core damage should not occur and there should be no immediate danger to the safety and

health of the public. However, if control of any one of these three conditions is lost then there exist the possibility for core damage to occur and a subsequent danger to the public. Also, if control of any of these conditions is gained from a location other than the control room or the remote shutdown panel then a General Emergency declaration is warranted.

7. Change the phrase "vital structures" to "vital area" in step 15.2.1 and 15.3.1 and removes the list of vital structures from these steps and the list of vital areas from step 15.3.3.

Justification: The definition of "vital areas" in step 5.33 contains a list of these structures plus adds the inverter room on 166' elevation of the Turbine Building. The addition of the inverter room in the Turbine Building comes from the security procedure definition of vital areas.

8. Moves definition of SSW from bottom of page 22 of Attachment I to step 5.34 of definition section.

Justification: The list of vital areas which contained SSW in step 15.3.3 was deleted therefore there is no reference to SSW on page 22. The list of vital areas is contained in the definition of vital areas in step 5.33. The definition of SSW is moved to the definition section.

9. Adds words "vital areas" to EAL for Site Area Emergency in the Security threats section of Attachment IV.

Justification: Editorial, changes the EAL for SAE in the Security Threats section of Attachment IV to more closely match step 14.3.1 in the body of procedure 10-S-01-1, which is being changed.

10. Changes EAL for a GE in the Security Threats section of Attachment IV to "Phy attack has resulted in unauthorized control of Decay Heat Removal, Rx Wtr Lvl or Reactivity control.

Justification: Editorial, changes the EAL for GE in the Security Threats section of Attachment IV to more closely match step 14.4.1 in the body of procedure 10-S-01-1, which is being changed.

11. Change the phrase "vital structures" to "vital area" in the "Hazards to Plant Operations" category of attachment IV for the General Emergency and Site Area Emergency EAL and removes the list of vital structures from these steps.

Justification: Editorial, changes the EAL for "Hazards to Plant Operations" to more closely match step 15.2.1 and step 15.3.1 in the body of procedure 10-S-01-1 which is being changed.

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**GRAND GULF NUCLEAR STATION UNIT 1  
SAFETY AND ENVIRONMENTAL EVALUATION APPLICABILITY REVIEW FORM**

- A) DOCUMENT EVALUATED: 10-S-01-1 REV. 105
- B) DESCRIPTION OF THE PROPOSED CHANGE: SEE CURRENT REVISION STATEMENT

**SAFETY EVALUATION APPLICABILITY REVIEW**

- C) Does the proposed change or activity represent a change to the Technical Specifications? Explain the basis. (If YES, THEN NRC APPROVAL MUST BE OBTAINED PRIOR TO IMPLEMENTING THE CHANGE)  Yes  
 No
- EXPLAIN: THE ACTIVATION OF THE EMERGENCY PLAN AND ACTIVITIES IS NOT CONTAINED IN THE GGNS TECH SPECIFICATIONS. PERFORMED SEARCH OF TECH SPECS AND FOUND NO INFORMATION PERTAINING TO ACTIVATION OF THE EMERGENCY PLAN.

IF ANY OF THE FOLLOWING QUESTIONS ARE ANSWERED "YES", THEN A FULL 50.59 SAFETY EVALUATION MUST BE COMPLETED.

(Note: See SAR definition, 5.8 of this procedure)

- D) Does the proposed change or activity represent:
- 1) A change to the facility which alters, or has the potential to alter, the information, operation, function or ability to perform the function of a system, structure or component described in the SAR?  Yes  
 No
- EXPLAIN: THIS CHANGE IS TO PROVIDE DEFINITION OF 'VITAL AREAS' AND MAKE THE CHANGES IN THE PROCEDURE TO THIS TERM. THIS REVISION ALSO CHANGES THE WORDING FOR THE SECURITY THREAT EVAL ON PHYSICAL ATTACK. THIS CHANGE HAS NO AFFECT ON ANY SYSTEM, STRUCTURE, OR COMPONENT DESCRIBED IN THE SAR.
- 2) A change to a procedure which alters, or has the potential to alter, a procedure described, outlined, or summarized in the SAR?  Yes  
 No
- EXPLAIN: THIS CHANGE IS TO PROVIDE DEFINITION OF 'VITAL AREAS' AND MAKE THE CHANGES IN THE PROCEDURE TO THIS TERM. THIS REVISION ALSO CHANGES THE WORDING FOR THE SECURITY THREAT EVAL ON PHYSICAL ATTACK. THIS CHANGE HAS NO AFFECT ON ANY SYSTEM, STRUCTURE, OR COMPONENT DESCRIBED IN THE SAR. THIS CHANGE INCORPORATES REVISION 40 OF THE EMERGENCY PLAN WHICH HAS BEEN EVALUATED UNDER 10CFR50.54Q.
- 3) A test or experiment not described in the SAR or which requires that a system be operated in an abnormal manner that is not described or previously analyzed in the SAR?  Yes  
 No
- EXPLAIN: THIS CHANGE IS TO PROVIDE DEFINITION OF 'VITAL AREAS' AND MAKE THE CHANGES IN THE PROCEDURE TO THIS TERM. THIS REVISION ALSO CHANGES THE WORDING FOR THE SECURITY THREAT EVAL ON PHYSICAL ATTACK. THIS CHANGE HAS NO AFFECT ON ANY SYSTEM, STRUCTURE, OR COMPONENT DESCRIBED IN THE SAR. NO TEST OR EXPERIMENT IS DESCRIBED IN THIS PROCEDURE.

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**ENVIRONMENTAL EVALUATION APPLICABILITY REVIEW (SCREENING)**

IF EITHER OF THE FOLLOWING QUESTIONS IS ANSWERED "YES", THEN AN ENVIRONMENTAL EVALUATION MUST BE PERFORMED.

- E) Does the proposed change or activity represent a change to the Environmental Protection Plan?  Yes  No

EXPLAIN: THIS CHANGE IS TO PROVIDE DEFINITION OF 'VITAL AREAS' AND MAKE THE CHANGES IN THE PROCEDURE TO THIS TERM. THIS REVISION ALSO CHANGES THE WORDING FOR THE SECURITY THREAT REAL ON PHYSICAL ATTACK. THIS CHANGE HAS NO AFFECT ON ANY SYSTEM, STRUCTURE, OR COMPONENT DESCRIBED IN THE SAR. THIS CHANGE DOES NOT PROPOSE A CHANGE TO THE EPP.

- F) Does the proposed change or activity represent a change that will or may affect the environment?  Yes  No

EXPLAIN: THIS CHANGE IS TO PROVIDE DEFINITION OF 'VITAL AREAS' AND MAKE THE CHANGES IN THE PROCEDURE TO THIS TERM. THIS REVISION ALSO CHANGES THE WORDING FOR THE SECURITY THREAT REAL ON PHYSICAL ATTACK. THIS CHANGE HAS NO AFFECT ON ANY SYSTEM, STRUCTURE, OR COMPONENT DESCRIBED IN THE SAR. THIS CHANGE DOES NOT REPRESENT A CHANGE THAT WILL AFFECT THE ENVIRONMENT.

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Signatures

Prepared:

K. McDonald / K. McDonald Emergency Planner 8/25/99  
 SIGNATURE/NAME (PRINT)                      JOB TITLE                      DATE

Reviewed:  
(INDEPENDENT)

Beverly A. Raines / Beverly A Raines Sr. Emergency Planner 8/26/99  
 SIGNATURE /NAME (PRINT)                      JOB TITLE                      DATE

REVIEWER: CHECK BELOW TO INDICATE BY WHICH MEANS THE INDEPENDENT  
 REVIEW REACHED THE SAME CONCLUSIONS.

- Reviewed the applicability review documentation.  
 (Use this method when explanation for any or all  
 question(s) C thru F is provided by the preparer.  
 Otherwise perform an independent applicability review  
 or verbal review with the preparer by checking one of  
 the two below.)
- Completed an independent applicability review.
- Performed a verbal review with the preparer.

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EVALUATION OF EMERGENCY PREPAREDNESS PROCEDURE

Procedure Number: 10-S-01-1

Procedure Name: Activation of Emergency Plan

Revision / TCN Number: Revision 105

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

( ) Yes (X) No

NOTE: IF YES, THIS PROCEDURE CAN NOT BE ISSUED UNTIL THE EMERGENCY PLAN IS CHANGED / REVISED.

Reason for 'No' response: Incorporates Revision 40 of Emergency Plan

Prepared:

K. McDonald

Approved:

MJA  
Manager, Emergency Preparedness

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Periodic Review Required:

( ) YES (✓) NO

If Yes, list frequency: \_\_\_\_\_ Year

If No, refer to Attachment XIX of 01-S-02-3 for a list of procedure review methods and fill in the appropriate letter(s) below; if "Other," specify method.

Method(s) of Review M

Cross-discipline review required:

(✓) YES ( ) NO

Tech Reviewer's Initials Bar

Initials

Reviewed by: Offsite Emergency Coordinator Position Lead

Emergency Director Position Lead

Superintendent, Operations

Security Coordinator

*[Handwritten signatures and initials]*  
Initials  
WCC  
8-31-99

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

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REQUIREMENTS CROSS-REFERENCE LIST

Requirement Implemented by Directive		Directive Paragraph Number That Implements Requirement
Name	Paragraph Number	
ANSI N18.7	5.3.9.2.S1	*
GGNS Emer Plan	2.4.S3	1.1.1
GGNS Emer Plan	3.3.S1	2.1.2
GGNS Emer Plan	6.2.2.S3 & S4	2.1.1, 6.1.2 S2
GGNS Emer Plan	5.4.5.a,b,c	2.2
GGNS Emer Plan	5.4.4	2.3
GGNS Emer Plan	3.1.S2	6.1.2
GGNS Emer Plan	6.2.2.S1 & S2	6.1.2 (Note)
GGNS Emer Plan	4.1.4.S3	Attachment I
GGNS Emer Plan	4.1.S3	6.1.4, 6.3
GGNS Emer Plan	4.1.S13	6.1.3 (Note)
GGNS Emer Plan	3.3.S6.b	6.1.3
GGNS Emer Plan	6.2.4.S11 & S12	6.1.4.i(1)
GGNS Emer Plan	6.2.4.S13	6.1.4.i(2)
GGNS Emer Plan	6.2.4.S14	6.1.4.i(3)
GGNS Emer Plan	4.1.4.S2	6.1.4.j(1)
GGNS Emer Plan	6.3.1.S1 & S2	6.2.1
GGNS Emer Plan	6.3.2	6.2.1a
GGNS Emer Plan	6.3.3, 6.3.4	6.2.1b
GGNS Emer Plan	9.3.S7	Attachment II (Note)
GGNS Emer Plan	Table 4-1	Attachment I
GGNS Emer Plan	7.5.3.a.2.e	5.30
GNRI-93/00171	93-13-01, Item 6	Attachment I, 17.1.1
GGNS Emer Plan	6.5.1.b.S5, S6	6.1.4.j(1)
GGNS Emer Plan	7.5.3.a.3.c	6.1.4.d
GGNS Emer Plan	6.2.4.S2	2.1.2
GGNS Emer Plan	6.2.4.S7 & S8	2.4
GGNS Emer Plan	5.4.S6	6.1.4.i(1), i(2), i(3)
GGNS Emer Plan	3.3.S3 & S4	2.4
GGNS Emer Plan	6.5.1.b	6.1.4

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

Current Revision Statement

Revision 105:

- Changes date in Step 4.4.
- Adds Step 5.33, definition of "vital areas" in definition section.
- Changes Step 6.1.4i(3) from requiring a Site Evacuation to seriously considering the declaration of a Site Evacuation at the onset of a Site Area Emergency or General Emergency.
- Removes the definition of HCLL and MCWLL curves from the bottom of page 8 of Attachment I.
- Added "or vital areas" to EAL 14.3.1.
- Changes EAL for Step 14.4.1 of Table I for a General Emergency declaration to read as follows; Physical attack on the plant has resulted in unauthorized personnel controlling Decay Heat Removal, Reactor Water Level, or Reactivity Control capability.
- Changes "vital structures" in Step 15.2.1 of Attachment I to "vital areas" and removes list of vital structures.

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Current Revision Statement (Continued)

- Changes "vital structures" in Step 15.3.1 of Table I to "vital areas" and removes list of vital structures in Step 15.3.1 and 15.3.3 of Attachment I.
- Moves the definition of SSW at bottom of page 22 of Attachment I to the Step 5.34 of definition section.
- Adds "vital areas" to EAL for Site Area Emergency in the Security Threats section of Attachment IV.
- Changes EAL for General Emergency in the Security Threats section of Attachment IV to "Phy attack has resulted in unauthorized control of Decay Heat Removal, Rx Wtr Lvl or Reactivity Control".
- Changes wording in EAL for General Emergency and Site Area Emergency in the Hazards to Plant Operations section of Attachment IV from Plant Vital Structures to Plant Vital Areas and removes the list of vital structures from these EAL's.

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## 1.0 PURPOSE AND DISCUSSION

### 1.1 Purpose

1.1.1 This procedure provides guidance to:

- a. Classify an emergency according to severity.
- b. Assign responsibilities for emergency actions.
- c. Establish lines of authority and communication.
- d. Initiate emergency actions to safeguard the public and plant personnel.
- e. Upgrade or terminate emergency classification when severity of event changes.

### 1.2 Discussion

1.2.1 Whenever plant conditions are identified that meet the Emergency Action Level Criteria in Attachment I or IV, this emergency plan procedure shall be implemented.

1.3 Changes required for implementation of 1994 TSIP were incorporated in Revision 100. For historical reference this statement should not be deleted.

## 2.0 RESPONSIBILITIES

2.1 Shift Superintendent - Is responsible for determining if emergency declaration is required.

2.1.1 If an Emergency Action Level (EAL) is reached or exceeded, the Shift Superintendent shall:

- a. Classify the emergency and make the appropriate declaration if required.
- b. Take action to ensure safe operation of plant and protection of plant personnel, the general public, and plant equipment.
- c. Perform assessment actions.
- d. Perform any other emergency actions as appropriate.

2.1.2 The Shift Superintendent assumes the role of Emergency Director upon initial classification of an emergency, and becomes the Operations Coordinator, when relieved by the On-Call Manager (as Emergency Director), until relieved by the On-Call Operations Coordinator.

2.2 Operations Coordinator - Reports directly to the Emergency Director and is responsible for:

2.2.1 Coordinating all activities in the Control Room.

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2.2.2 Coordinating Operations activities outside of the Control Room with the TSC Coordinator.

2.2.3 Providing technical assistance to the Shift Superintendent.

2.3 Security Coordinator - Reports directly to the Emergency Director and is responsible for managing the Security Force during an emergency.

2.4 On-Call Manager - is responsible for:

2.4.1 Reporting to the site to assume the duties of Emergency Director upon notification of an Alert or higher classification.

2.4.2 Assuming the duties of Emergency Director after The TSC is declared operational.

2.4.3 Reporting to the site to assume duties of Emergency Director upon notification of an Unusual Event if he deems it necessary.

2.4.4 Evaluating the accident conditions and verifying that the correct emergency classification has been made.

### 3.0 REFERENCES

3.1 NRC Memorandum dated July 11, 1994 concerning "Branch Position on Acceptable Deviations to Appendix 1 to NUREG-0654/FEMA-REP-1".

3.2 GGNS Emergency Plan

### 4.0 ATTACHMENTS

4.1 Attachment I - Emergency Classifications

4.2 Attachment II - Guidelines to Terminate Emergency

4.3 Deleted

4.4 Attachment IV - Emergency Classification Flowchart Dated 7/28/99

### 5.0 DEFINITIONS

5.1 Alert - An emergency classification in which events are in progress or have occurred that 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 Environmental Protection Agency (EPA) Protective Action Guideline exposure levels.

5.2 Assessment Action - Actions taken during or after an accident to obtain and process information necessary to make decisions to implement specific emergency measures.

5.3 CAS - Central Alarm Station

5.4 Downwind - An area located beyond a fixed point in the same direction the wind is blowing. The area covers three sectors, the sector containing the plume centerline, and the two adjacent sectors. If the plume is on a sector line, four sectors are used until the three sector criteria can be identified.

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- 5.5 Emergency - A sudden, urgent, usually unforeseen occurrence or occasion requiring immediate action. It may result from accidental causes, natural causes, or malicious man-made actions. There are four classes of emergencies considered: Unusual Event, Alert, Site Area Emergency, and General Emergency.
- 5.6 Emergency Action Levels (EALs) - Radiological dose rates, specific contamination levels of airborne, waterborne, or surface-deposited concentrations of radioactive materials; or specific instrument indications (including their rates of change) that are used as thresholds for initiating such specific emergency measures as designated for a particular class of emergency, initiating a notification procedure, or initiating a particular protective action.
- 5.7 Emergency Classification - Emergency conditions (four classes) covering the entire spectrum of possible situations from minor, local incidents to hypothetical, major radiological emergencies. The four classes are listed in increasing order of severity: Unusual Event, Alert, Site Area Emergency and General Emergency.
- 5.8 Emergency Director - An individual designated onsite having the authority and responsibility to initiate the Emergency Plan and coordinate efforts to reduce the consequences of the event and bring it under control
- 5.9 Emergency Operations Facility (EOF) - A near-site emergency center from which the offsite emergency support activities are controlled
- 5.10 EPP - Emergency Plan Procedure
- 5.11 Emergency Planning Zone (EPZ) - Areas designated for which planning is provided to assure that prompt and effective action is initiated to protect the public in the event of an emergency
- 5.12 ESC - Energy Services Center
- 5.13 Exclusion Area - Area surrounding the plant, owned by the licensee, in which the licensee has the authority to determine all activities including exclusion or removal of personnel and/or property
- 5.14 General Emergency - An emergency classification in which events are in progress 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.
- 5.15 ERDS - Emergency Response Data System
- 5.16 LOCA - Loss of Coolant Accident
- 5.17 OEC - Offsite Emergency Coordinator
- 5.18 Offsite - For accountability purposes, any area outside the GGNS protected area
- 5.19 OMT - Offsite Monitoring Team
- 5.20 Onsite - For accountability purposes, the area within the GGNS protected area

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- 5.21 Operations Support Center (OSC) - Location from which onsite non-Control Room activities are staged and implemented
- 5.22 PA - Public Address System
- 5.23 PAG - Protective Action Guide
- 5.24 PAR - Protective Action Recommendation
- 5.25 Site Area Emergency - An emergency classification in which events are in progress or have occurred which involve major failures of plant functions needed for protection of the public. Any releases are not expected to exceed EPA Protective Action Guideline exposure levels except near the site boundary.
- 5.26 SAS - Secondary Alarm Station
- 5.27 TLD - Thermoluminescent Dosimeter
- 5.28 TSC - Technical Support Center
- 5.29 Unusual Event - An emergency classification in which events are in progress 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. (This is the same as the Notification of Unusual Event defined in NUREG-0654; the two expressions are used interchangeably in the E-Plan and related procedures as appropriate.)
- 5.30 ERDS - Emergency Response Data System. A near real-time data link from the GGNS Balance of Plant computer to the NRC Operations Center. This system monitors specific data and is activated by the GGNS Shift Superintendent no later than one hour after an ALERT (or higher) declaration.
- 5.31 CDE (Thyroid) (Committed Dose Equivalent) - The radiation dose to the adult thyroid gland due to radioiodines over a fifty year period following inhalation or ingestion.
- 5.32 TEDE (Total Effective Dose Equivalent) - Sum of the EDE and CEDE to nonpregnant adults from exposure and intake during an emergency situation.
- 5.33 Vital Areas - Areas within the Protected Area that house safety-related/safeguards equipment. The failure or destruction of this equipment could directly or indirectly endanger the public health and safety by exposure to radiation. The following areas are considered Vital Areas: Auxiliary Building (including Containment), Control Building (including Control Room Complex), Diesel Generator Building, Inverter Room (Turbine Deck), SSW Complex.
- 5.34 SSW - Standby Service Water

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## 6.0 DETAILS

### 6.1 Activation of Emergency Plan

- 6.1.1 Any person having knowledge of abnormal plant conditions should notify the Shift Supervisor/Superintendent.
- 6.1.2 The Shift Supervisor/Superintendent, when notified of abnormal plant conditions, should refer to Attachment I or IV to determine if an emergency action level has been reached. If an emergency action level has been reached, the emergency plan shall be implemented.

NOTE

The Shift Supervisor/Superintendent is responsible for determining if the declaration of an emergency is required. If a declaration is required, he is responsible for activating the emergency plan.

- 6.1.3 Whenever there is doubt as to the classification of the emergency condition or if more than one EAL is reached, the more conservative classification should be used.

NOTE

When EALs are observed in conjunction with plant or equipment status due to planned maintenance or testing activities, an emergency condition may or may not exist and the situation must be evaluated on a case-by-case basis.

- 6.1.4 Once an emergency classification is declared, the following actions are taken by the Shift Superintendent/Emergency Director:

NOTE

After becoming aware that an emergency condition exists, the Shift Superintendent/Emergency Director's first priorities are:

Take actions to ensure safety of plant personnel and general public.

Take actions to ensure safe operation of plant.

Other duties and responsibilities of the Emergency Director are contained in 10-S-01-30, Technical Support Center (TSC) Operations.

- a. Initiate Emergency Director's Checklist (EPP Form 01-1).
- b. Announce to Control Room personnel that you are the Emergency Director.

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## 6.1.4 (Cont.)

NOTE

The NRC shall be notified of the declaration of the emergency IMMEDIATELY AFTER THE NOTIFICATION OF STATE AND LOCAL AGENCIES and not later than one hour after the emergency declaration.

- c. Designate an individual as communicator to perform the initial notification in accordance with 10-S-01-6. The Shift Superintendent shall ensure that the primary or secondary state and local agencies are notified within 15 minutes of an emergency declaration or reclassification.

NOTE

In the event of Security emergencies, each Security related incident should be evaluated. Only those support groups and facilities which are needed should be activated, regardless of the emergency classification, so as to minimize the risk to personnel. Utilization of the ERO call tree rather than VIP 2000 may be required to inform responders of emergency situation and prevent manning of unneeded facilities.

- d. Activate and verify activation of the VIP 2000 per 10-S-01-6.
- e. Activate ERDS within one hour of an Alert or higher declaration Per 10-S-01-6.
- f. Announce nature and classification of event:

NOTE

For security emergencies, inform all personnel to take shelter, to NOT move around in the plant, and to man only those emergency facilities which are necessary and that don't pose a risk to personnel.

- (1) Over Plant PA System.
- (2) Over Site Paging (#7929).
- g. If an evacuation of affected areas of the plant is required, perform in accordance with 10-S-01-11.
- h. Implement plant operating procedures and emergency plan procedures as required to perform emergency corrective and assessment actions.
- i. Activate emergency facilities as follows:
- (1) If Unusual Event has been declared, no activation of facilities is required unless the Emergency Director feels there is a reasonable possibility of escalation of emergency to a higher classification.

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6.1.4 (Cont.)

- (2) If an Alert has been declared, the TSC, OSC, ENMC and EIC must be activated.
  - (3) If a Site Area or General Emergency has been declared, all emergency facilities must be activated and a Site Evacuation should be seriously considered.
- j. If an Alert, Site Area Emergency, or General Emergency has been declared, determine offsite doses in accordance with 10-S-01-12.
- (1) Protective actions shall be recommended to State and Local Agencies upon declaration of a General Emergency as follows:

Condition	Protective Action Recommendation
General Emergency Declared	EVACUATE: 2 Miles All Sectors <u>and</u> EVACUATE: 5 Miles in Downwind Sectors <u>and</u> SHELTER: Remainder of 10 Mile Emergency Planning Zone (EPZ)
General Emergency Declared <u>and</u> Dose Projection or Field Measurement at $\geq 5$ miles corresponds to 1 Rem TEDE <u>or</u> 5 Rem Thyroid.CDE	EVACUATE: 2 Miles All Sectors <u>and</u> EVACUATE: 10 Miles in Downwind Sectors <u>and</u> SHELTER: Remainder of 10 Mile Emergency Planning Zone (EPZ)

- k. Designate shift personnel to perform emergency corrective and assessment actions.

6.2 Supplemental Actions

- 6.2.1 Continuous assessment is necessary to effectively coordinate and direct emergency response. In any emergency situation, attention must be paid to parameters that may indicate a possible worsening of conditions (i.e., radioactive releases).

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6.2.1 (Cont.)

- a. If an Alert condition is declared, the following assessment actions are required:
  - (1) Increased surveillance of applicable in-plant instrumentation.
  - (2) Visual observation of affected plant area.
  - (3) Onsite and offsite radiological monitoring if a release has taken place or is suspected.
  - (4) Determination of offsite doses if applicable.
- b. In addition to the above, a Site Area Emergency or General Emergency would require these additional assessment actions.
  - (1) Monitor meteorological data.
  - (2) Dispatch offsite radiological monitoring teams down wind of the release in conjunction with state radiological monitoring efforts.
  - (3) Assess onsite and offsite radiation doses. (TEDE and Thyroid CDE).

6.2.2 Emergency Director should ensure that periodic announcements are made over the plant PA and site PA (#7929) concerning:

- a. Nature and location of event.
- b. Required personnel actions.
- c. Any other information necessary.

6.2.3 The Emergency Director (while in the Control Room) logs all information in the Shift Superintendent/Control Room Operator Log as necessary for event reconstruction.

6.2.4 The Emergency Director (while in the TSC) may delegate to the TSC Coordinator and/or Radiation Protection Manager the responsibility for logging all information relative to the emergency (for event reconstruction).

6.2.5 The Offsite Emergency Coordinator may delegate to the Offsite Emergency Coordinator Technical Assistant the responsibility for logging all information relative to the emergency (for event reconstruction).

6.2.6 Upon activation of the EOF, the following activities must be transferred to the OEC:

- a. Notifications to offsite agencies
- b. Offsite radiological and environmental surveys

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6.2.6 (Cont.)

- c. Protective action recommendations to offsite agencies
- d. Classification of the emergency

6.2.7 If extended emergency operations are necessary, the Emergency Director/Offsite Emergency Coordinator should authorize preparation of an emergency organization shift schedule to support 24-hour emergency operation.

6.3 Upgrading Emergency Classifications

- 6.3.1 If conditions worsen, refer to Attachment I or IV to determine if the emergency classification requires upgrading. If the classification is upgraded, ensure the following steps are taken:
- a. Declare appropriate emergency classification in accordance with Step 6.1.2.
  - b. Announce nature and classification of event in accordance with Step 6.1.4.f.
  - c. If an evacuation is required, notify Security if possible and evacuate affected areas in accordance with Step 6.1.4g.
  - d. Initiate plant operating procedures and emergency plan procedures as required.
  - e. Activate additional emergency facilities as necessary in accordance with Step 6.1.4i.
  - f. Determine offsite doses in accordance with Step 6.1.4j.
  - g. Conduct additional assessment actions as necessary in accordance with Step 6.2.

6.4 Terminating Emergency

6.4.1 Terminating

If EALs are no longer met or exceeded, the Emergency Director/Offsite Emergency Coordinator refers to Attachment II to determine whether or not to terminate emergency.

6.4.2 Reentry and Recovery

Once the corrective and protective actions taken have established effective control over the situation, the Emergency Director may refer to 10-S-01-22 to determine if reentry and recovery actions may be initiated. If the reentry/recovery criteria are met, the Emergency Director may advise the Offsite Emergency Coordinator that reentry/recovery may start.

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## 6.5 Records and Reports

- 6.5.1 The Manager, Emergency Preparedness is responsible for generating a report on the activation of the Emergency Plan. The report should include the following:
- a. Copies of appropriate paperwork generated by the event including: notification forms, checklists, logbooks, survey maps, dose calculations etc.
  - b. Observations and comments from the personnel involved in the event.
- 6.5.2 The Manager, Emergency Preparedness is responsible for ensuring that all observations and comments are tracked in Emergency Preparedness Action Tracking System, in accordance with 01-S-10-3.

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EMERGENCY CLASSIFICATIONS  
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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
1. Safety System Functions	1. Inability to reach required shutdown within Technical Specification time limits	Failure to reach the required Plant Mode within Technical Specification action statement time frames for any of the following LCO's:  1. Safety/relief Valves 3.4.4  <u>or</u>  2. ECCS - Operating 3.5.1  <u>or</u>  3. Primary Containment 3.6.1.1  <u>or</u>  4. Primary Containment Airlocks 3.6.1.2  <u>or</u>  5. Primary Containment Isolation Valves 3.6.1.3  <u>or</u>  6. Low Low Set Valves 3.6.1.6  <u>or</u>  7. Residual Heat Removal Containment Spray 3.6.1.7  <u>or</u>  8. Suppression Pool Average Temperature 3.6.2.1  <u>or</u>  9. Suppression Pool Level 3.6.2.2  (Continued)	UNUSUAL EVENT

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
1. Safety System Functions (Cont.)		<p style="text-align: center;"><u>OR</u></p> <p>10. Suppression Pool Makeup System 3.6.2.4</p> <p style="text-align: center;"><u>OR</u></p> <p>11. Second Containment 3.6.4.1</p> <p style="text-align: center;"><u>OR</u></p> <p>12. Second Containment Isolation Valve 3.6.4.2</p> <p style="text-align: center;"><u>OR</u></p> <p>13. Standby Gas Treatment System 3.6.4.3</p> <p style="text-align: center;"><u>OR</u></p> <p>14. Drywell 3.6.5.1</p> <p style="text-align: center;"><u>OR</u></p> <p>15. Drywell Airlocks 3.6.5.2</p> <p style="text-align: center;"><u>OR</u></p> <p>16. Drywell Isolation Valves 3.6.5.3</p>	UNUSUAL EVENT
	2. Failure of a safety/relief valve to close following reduction of applicable pressure to below reset point	1. Shift Superintendent determines a SRV is stuck open in plant Mode 1, 2, or 3.	

ECCS - Emergency Core Cooling System

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
2. Abnormal Primary Leak Rate/ Low Reactor Water Level	1. Exceeding primary coolant system leak rate	While in modes 1,2, or 3: 1. > 5 gpm unidentified leakage  <u>or</u> 2. > 30 gpm total leakage Averages over previous 24 hr period	UNUSUAL EVENT
	2. Coolant leak rate > 50 gpm	1. Total leakage calculated to be > 50 gpm while in Plant Mode 1, 2 or 3	ALERT
	3. Known loss of coolant greater than makeup pump capacity	1. RPV water level < -167 inch  <u>and</u> 2. Makeup capacity unable to increase reactor water level	SITE AREA EMERGENCY

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
3. Core Fuel Damage	1. Fuel damage indication	1. Increase of 285 mR/hr in 30 minutes on OFFGAS pretreatment monitor  <u>or</u> 2. OFFGAS pretreatment monitor reading > 1,400 mR/Hr.  <u>or</u> 3. Laboratory analysis of coolant sample indicates > 0.2 µCi/ml dose equivalent I-131 for more than 48 hours  <u>or</u> 4. Laboratory analysis of coolant sample indicates > 4.0 µCi/ml dose equivalent I-131	UNUSUAL EVENT
	2. Severe loss of fuel cladding	1. OffGAS pretreatment monitor reading > 14,000 mR/HR  <u>or</u> 2. Coolant sample analysis indicates >300 µCi/ml dose equivalent I-131  <u>or</u> 3. Main steam line radiation exceeds radiation monitor trip setpoint	ALERT

µCi - Micro Curies

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
3. Core Fuel Damage (Cont.)	3. Degraded core with possible loss of coolant	1. RPV water level < -167" or cannot be determined  <u>and</u>  2. a. High coolant activity indicated by analysis of sample > 300 µCi/ml dose equivalent I-131  <u>or</u>  b. Containment or Drywell hydrogen concentration greater than 0.5%	SITE AREA EMERGENCY

µCi - micro Curies

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
3. Core Fuel Damage (Cont.)	4. Loss of 2 of 3 fission product barriers with a potential loss of 3rd barrier	1. Loss of any two of the following fission product boundaries with a potential for loss of the third:  <u>Fuel Cladding Loss</u>  a. Coolant sample analysis indicates >300 $\mu$ Ci/ml dose equivalent I-131 <u>or</u> b. >1000 R/Hr in Drywell  <u>Potential Loss</u>  a. RPV water level cannot be restored and maintained > -167 in. <u>or</u> b. RPV pressure cannot be restored and maintained > 57 psig when in RPV flooding. <u>or</u> c. >100 R/Hr in Drywell  <u>Reactor Pressure Boundary Loss</u>  a. Drywell pressure >1.23 psig <u>and</u> indication of a steam leak in the drywell <u>or</u> b. Main steam line not isolated <u>or</u> c. RCIC steam line break outside containment with inability to isolate  <u>Potential Loss</u>  a. Total reactor coolant leakage calculated to be >50 gpm <u>or</u> b. >10 R/hr in Containment	GENERAL EMERGENCY

$\mu$ Ci - Micro Curies

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**EMERGENCY CLASSIFICATIONS**

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
3. Core Fuel Damage (Cont.)	4. Loss of 2 of 3 fission Product  Barriers with a Potential loss of 3rd barrier. (Cont.)	<u>Primary Containment Loss</u>  a. Primary Containment pressure >56 psig <u>or</u> b. Loss of ability to isolate Drywell or primary containment Leakage into Areas Outside the Primary Containment  Potential Loss a. Primary containment pressure >22 psig <u>or</u> b. Operation in the Unsafe Region of HCTL <u>or</u> PSP Curve. <u>or</u> c. Operation in the Unsafe Region of HDOL Curve with Hydrogen Igniters De-Energized	GENERAL EMERGENCY
4. Steam Leaks	1. Main steam line break outside the containment with significant MSIV leakage.	1. Isolation initiated and abnormal leakage down stream of MSIVs (> 10 gpm or 5000 lbm/hr)	ALERT
	2. RCIC steam line break outside the containment with significant isolation valve leakage	1. Isolation initiated and abnormal leakage down stream of isolation valves (> 10 gpm or 5000 lbm/hr)	
	3. Main steam line break outside of containment which cannot be isolated.	1. Isolation required due to confirmed steam line break  <u>and</u>  One or more main steam lines fail to isolate	SITE AREA EMERGENCY
	4. RCIC steam line break outside of containment which cannot be isolated.	1. Isolation required due to confirmed steam line break  <u>and</u>  RCIC steam line fails to isolate	

MSIV - Main Steam Isolation Valve      PSP - Pressure Suppression limit  
 RCIC - Reactor Core Isolation Cooling  
 HCTL - Heat Capacity Temperature Limit  
 HDOL - Hydrogen Deflagration Overpressure Limit

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
5. Abnormal Effluent, GASEOUS	1. Radiological effluent release rate exceeds TRM Spec limit	1. Entering the action statement of the following LCOs in the Radioactive Gaseous Effluent section of the TRM Specs 6.11.4, 6.11.5, and 6.11.6	UNUSUAL EVENT
	2. Radiological effluent >10 times TRM Spec limit	1. High high radiation alarms on <u>ONE OR MORE monitors</u> :  a. Radwaste Bldg vent exhaust  b. Fuel handling vent exhaust  c. Containment vent exhaust  d. Turbine Bldg vent exhaust  <u>and</u>  Summation of monitors (including SGTS A and B) exceeds 10 times TRM Spec limit (6.11.4)	ALERT

LCO - Limited Condition for Operation  
 SGTS - Standby Gas Treatment System  
 TRM - Technical Requirements Manual

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
5. Abnormal Effluent, GASEOUS (Cont.)	3. Effluent monitors detect levels corresponding to site boundary exposure of:	1. Any post accident effluent radiation monitor confirm release rates corresponding to:  a. 0.5 Ci/sec Noble Gas for 30 minutes  <u>or</u>  b. 6.0 E-4 Ci/sec Iodine for 30 minutes  <u>or</u>  c. 5.0 Ci/sec Noble Gas for 2 minutes  <u>or</u>  d. 6.0 E-3 Ci/sec Iodine for 2 minutes  <u>or</u>  2. Radiation monitoring teams report radiation and/or Iodine concentration readings at the site boundary corresponding to: a. 50 mR/Hr for 30 minutes  <u>or</u> b. 500 mR/Hr for 2 minutes  <u>or</u>  c. 6.0E-6 µCi/cc Iodine  <u>or</u>  3. Containment Post Accident Radiation Monitor: a. >330 R/HR for 30 minutes  <u>or</u> b. >3300 R/HR for 2 minutes	SITE AREA EMERGENCY
	a. ≥ 50 mR/Hr (for 30 minutes) Whole Body  <u>or</u>  b. ≥ 500 mR/Hr (for 2 minutes) Whole Body  <u>or</u>  c. ≥ 250 mR/hr (for 30 min) to the Thyroid.		
	<p style="text-align: center;"><u>NOTE</u></p> "Adverse Meteorology" -Stability Class F, wind speed 1 m/sec, site boundary X/Q 1080 E-6 sec/m' (FSAR Table 15 6-12)		

FSAR - Final Safety Analysis Report  
 µCi - micro Curies  
 Ci - Curies

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
5. <u>Abnormal Effluent, GASEOUS</u> (Cont.)	4. <u>Effluent monitor(s) (UNDER ACTUAL METEOROLOGICAL CONDITIONS)</u> detect levels corresponding to site boundary exposure of:  1000 mRem Dose Commitment Whole Body  <u>or</u>  5000 mRem Dose Commitment Thyroid	1. <u>Effluent monitor(s) (UNDER ACTUAL METEOROLOGICAL CONDITIONS)</u> confirms release rates corresponding to site boundary exposure of:  a. 1000 mRem TEDE  <u>or</u>  b. 5000 mRem Thyroid CDE  <u>or</u>  2. Radiation monitoring teams report radiation and/or iodine concentrations readings (at the site boundary) corresponding to:  a. 1000 mRem TEDE  <u>or</u>  b. 1.2E-5 µCi/cc Iodine	GENERAL EMERGENCY
6. <u>Abnormal Effluent, LIQUID</u>	1. Radiological Effluent Release Rate <u>exceeds</u> TRM Spec limit	1. Entering the action statement of TRM Spec 6.11.1, in the Radioactive Liquid Effluent section of TRM Spec	UNUSUAL EVENT
	2. Radiological Effluent >10 times TRM Spec limit	1. Liquid release > 10 times the limit of TRM Spec 6.11.1 in the Radioactive Liquid Effluent section of TRM Spec	ALERT

TEDE - Total Effective Dose Equivalent  
 CDE - Committed Dose Equivalent  
 TRM - Technical Requirements Manual

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
7. Major Electrical Failures (AC)	1. Total loss of offsite power  <u>or</u>  Loss of onsite AC power capability	1. Loss of offsite power to: a. 15AA  <u>and</u> b. 16AB  <u>and</u> c. 17AC  <u>or</u> 2. Loss of <u>ALL</u> three divisional diesel generators while in Plant Operational Condition 1, 2 or 3	UNUSUAL EVENT
	2. Total loss of offsite power  <u>and</u>  Loss of ALL onsite power ≤ 15 minutes	1. Loss of offsite power to: a. 15AA  <u>and</u> b. 16AB  <u>and</u> c. 17AC  <u>and</u> 2. Loss of all three divisional diesel generators  <u>and</u> 3. ≤15 minutes	ALERT

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
7. Major Electrical Failures (AC) (Cont.)	3. Total loss of offsite power  and  Loss of ALL onsite power >15 minutes	1. Loss of offsite power to:  a. 15AA  and  b. 16AB  and  c. 17AC  and  2. Loss of all three divisional diesel generators  and  3. >15 minutes	SITE AREA EMERGENCY
8. Major Electrical Failures (DC)	1. Loss of onsite ESF DC power for ≤ 15 minutes	1. Loss of Division 1, 2 and 3 (125 Vdc for ≤15 minutes)	ALERT
	2. Loss of onsite ESF DC power for > 15 minutes	1. Loss of Division 1, 2 and 3 (125 Vdc for >15 MINUTES)	SITE AREA EMERGENCY

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
9. Control Room Evacuation	1. Evacuation of the Control Room  <u>and</u>  Control established at the remote shutdown panel	1. Control Room evacuated  <u>and</u>  2. Control of shutdown systems established at the remote shutdown panel	ALERT
	2. Evacuation of the Control Room  <u>and</u>  Control not established at the remote shutdown panel within 15 minutes	1. Control Room evacuated  <u>and</u>  2. Unable to establish control of shutdown systems at the remote shutdown panel <u>within</u> 15 minutes of evacuating the Control Room	SITE AREA EMERGENCY
10. Fire	1. Fire lasting > 10 minutes after discovery	1. A fire within the power block, fire water pump house or CO <sub>2</sub> skid lasting >10 minutes from the time of notification	UNUSUAL EVENT
	2. Fire potentially affects safety systems	1. A fire defeating <u>ONE</u> safety system electrical division	ALERT
	3. Fire compromising the functions of ESF Systems	1. A fire defeating <u>MORE THAN ONE</u> safety system electrical division	SITE AREA EMERGENCY

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
11. Plant Shutdown Function	1. Complete loss of functions needed for plant <u>COLD</u> shutdown.	1. All control rods fully inserted  <u>and</u> 2. The determination that there are no longer enough systems functional to attain or maintain the reactor coolant <200°F	ALERT
	2. Failure of the Reactor Protection System to initiate and complete a scram which brings the reactor subcritical	1. Scram conditions confirmed  <u>and</u> 2a. More than one rod is greater than position 02  <u>or</u> rod position is unknown for more than one rod  <u>and</u> 2b. SRM's are either upscale or countrate is increasing (Assuming SRMs are full in)  <u>and</u> 3. Reactor power <4% on APRM (APRM Downscale light on)	

APRM - Average Power Range Monitor

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**EMERGENCY CLASSIFICATIONS**

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
11. Plant Shutdown Function (Cont.)	3. Complete loss of functions needed for plant <u>HOT</u> shutdown	1. HPCS and RCIC not functional <u>and</u> 2. Not able to depressurize with SRVs <u>and</u> 3. Main Condenser is not available	SITE AREA EMERGENCY
	4. Transient requiring operation of shutdown systems with failure to scram and continued power generation	1. Scram conditions confirmed <u>and</u> 2. All control rods <u>NOT inserted</u> to between 00 and 02 <u>and</u> 3. Reactor power $\geq 4\%$ on APRM	

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
12. Abnormal In-plant Radiation/ Airborne Contamination Levels	1. Radiation levels or airborne contamination indicate a severe degradation in the control of radioactive materials	1. Verification of area radiation monitor reading > 1000 times setpoint  or  Verification of CAM reading >1000 times setpoint	ALERT
13. Fuel Handling Accident	1. Fuel damage accident with release of radioactivity to Containment or Auxiliary Building	1. Notification of a spent fuel damaging accident  <u>and</u>  2. High high radiation alarms on either  a. Fuel handling vent exhaust  <u>or</u>  b. Containment vent exhaust	ALERT
	2. Major damage to spent fuel assembly in Containment or Auxiliary Building	1.a. Notification of a spent fuel damaging accident  <u>or</u>  b. Low water level in spent fuel pool below top of spent fuel  <u>and</u>  unable to restore level to above fuel.  <u>and</u>  (Continued)	SITE AREA EMERGENCY

CAM - Continuous Air Monitor

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**EMERGENCY CLASSIFICATIONS**

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
13. Fuel Handling Accident (Cont.)		2. Any post accident effluent radiation monitor confirms Noble Gas, Iodine release rates corresponding to: a. 0.5 Ci/sec Noble Gas (30 minutes) <u>or</u> b. 6.0 E-4 Ci/sec Iodine (30 minutes) <u>or</u> c. 5.0 Ci/sec Noble Gas (2 minutes) <u>or</u> d. 6.0 E-3 Ci/sec Iodine (2 minutes) <u>or</u> 3. Radiation monitoring teams report Radiation and/or Iodine concentration readings at the site boundary corresponding to: a. 50 mR/Hr (for 30 minutes) <u>or</u> b. 500 mR/Hr (for 2 minutes) <u>or</u> c. 6.0 E-6 $\mu$ Ci/cc Iodine	SITE AREA EMERGENCY

Ci - Curies  
 $\mu$ Ci - Micro Curies

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**EMERGENCY CLASSIFICATIONS**

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
14. Security Threat	1. Security threat  <u>or</u> Attempted entry sabotage	1. Based upon the assessment of the alarm or the event reported by Security. Actual threat must be determined prior to establishing an emergency classification	UNUSUAL EVENT
	2. On-going Security compromise	1. Identification of adversaries attempting to command areas of the plant, <u>but not controlling shutdown capability</u> or vital areas.	ALERT
	3. Imminent loss of physical control of the plant.	1. Physical attack on the plant involving imminent occupancy of the Control Room or Remote Shutdown Panel or Vital areas.	SITE AREA EMERGENCY
	4. Loss of physical control of the plant.	1. Physical attack on the plant has resulted in unauthorized personnel controlling Decay Heat Removal, Reactor Water Level, or Reactivity Control capability.	GENERAL EMERGENCY

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
15. Hazards to Plant Operations	1. Hazards being experienced or projected with the <u>potential for degradation</u> of the level of safety of the plant	1. Notification of an aircraft crash onsite outside the protected area  <u>or</u> 2. Notification of unusual aircraft activity over the facility  <u>or</u> 3. Notification of an onsite explosion (does not affect plant operation)  <u>or</u> 4. Determination that a release of toxic, oxygen displacing, or flammable gas will significantly hamper the ability of personnel to perform activities affecting plant safety  <u>or</u> 5. A manual or automatic scram initiated because of a turbine blade failure that has not penetrated the casing	UNUSUAL EVENT

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
15. Hazards to Plant Operations (Cont.)	2. Hazards being experienced or projected with <u>actual or potential</u> substantial degradation of the level of safety of the plant	1. Notification of an aircraft crash onsite inside the protected area, no damage to plant vital areas  <u>or</u> 2. Notification of missile impacts on plant non-vital structures  <u>or</u> 3. Notification of an onsite explosion affecting plant operation  <u>or</u> 4. Determination that the entry of toxic or flammable gases into facility structures has threatened to render Safety Related equipment Inoperable  <u>or</u> 5. Notification of a turbine failure that has resulted in casing penetration	ALERT

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EMERGENCY CLASSIFICATIONS

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
15. Hazards to Plant Operations	3. Hazards being experienced or projected with the functions needed for protection of the public	1. Notification of an aircraft crash into plant vital areas <p style="text-align: center;"><u>or</u></p> 2. Notification of severe damage to safe shutdown equipment from missiles or explosion <p style="text-align: center;"><u>or</u></p> 3. Determination that the entry of toxic or flammable gases into vital areas constitutes a plant safety problem	SITE AREA EMERGENCY

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**EMERGENCY CLASSIFICATIONS**

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
16. Natural Events	1. Natural events being experienced or projected beyond usual levels	1. A verified earthquake detected by in-plant seismic instrumentation  <u>or</u> 2. A tornado observed onsite  <u>or</u> 3. A hurricane warning issued that includes the site area	UNUSUAL EVENT
	2. Severe natural event near site being experienced or projected	1. A verified earthquake detected by in-plant seismic instrumentation $\geq$ OBE levels  <u>or</u> 2. A tornado causing damage to Safety Related structures  <u>or</u> 3. Sustained winds $\geq$ 73 mph onsite	ALERT
	3. Severe natural event near site being experienced or projected with plant in Modes 1, 2, or 3	1. A verified earthquake detected by in-plant seismic instrumentation $\geq$ SSE levels  <u>or</u> 2. Sustained winds $\geq$ 90 mph onsite	SITE AREA EMERGENCY
	4. Major internal <u>or</u> external events	1. Fires, earthquakes, etc., substantially beyond design basis which could or have caused massive common damage to plant systems	GENERAL EMERGENCY

OBE - Operating Earthquake  
SSE - Safe Shutdown Earthquake

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**EMERGENCY CLASSIFICATIONS**

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
17. Loss of assessment, communications, annunciators equipment	1. Significant loss of vital accident assessment or communications capability	1. Total loss of vital accident assessment equipment such as:  a. All vessel level instruments  <u>or</u> ,  b. All containment monitoring instruments, etc.  or  2. Degradation of the offsite communication system to only one source	UNUSUAL EVENT
	2. Loss of ALL annunciators	1. Loss of <u>ALL</u> annunciators on the P680, P601, and P870 panels	ALERT
18. Discretionary	1. Other plant conditions exist that warrant increased awareness on the part of the plant operating staff.  <u>AND/OR</u>  State and Local Authorities	1. Plant conditions exist that warrant a precautionary notification to local and state authorities.	UNUSUAL EVENT
	2. Other plant conditions warrant activation of TSC	1. Plant conditions exist that warrant precautionary activation of the TSC and placing the EOF and key plant personnel on standby.	ALERT

TSC - Technical Support Center  
 EOF - Emergency Operations Facility

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**EMERGENCY CLASSIFICATIONS**

CATEGORY	INITIATING CONDITION	EMERGENCY ACTION LEVEL	EMERGENCY CLASSIFICATION
18. Discretionary	3. Other plant conditions exist that warrant activation of Emergency Facilities	1. Plant conditions exist that warrant:  a. The activation of the EOF  <u>or</u>  b. A precautionary notification to the public near the site	SITE AREA EMERGENCY
	4. Other plant conditions exist that make <u>release of large amounts of amounts of radio-activity</u> in a short time possible	1. Plant conditions exist that make the release of large amounts of radioactivity in a short period of time likely. (Not limited to the following examples):  Core damage is predicted to occur (within 2 hours)  <u>and</u>  Containment pressure is > 22 psig or containment is breached	GENERAL EMERGENCY

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**GUIDELINES TO TERMINATE EMERGENCY**

**PURPOSE:** To establish general guidelines to be followed should changing plant conditions warrant termination of an emergency classification.

**NOTE**

The Emergency Director/Offsite Emergency Coordinator must discuss existing offsite conditions with appropriated State officials prior to terminating an emergency.

**I. Termination Guidelines**

**A. General**

1. Conditions which caused the event have been terminated.
2. Circumstances which have arisen from the event are under control and the results of any and all pertinent data are evaluated.
3. All probability of recurrence of an event is removed, isolated or under control.

**B. Specific Examples**

CATEGORY	TERMINATION GUIDELINES
Fires	Removal/separation of any element of fire triangle. Fire under control/not spreading.
Spill	Tanks, pipes, valves, any other problem sources are empty, isolated, and out of service.
Airborne	Source identified and isolated and/or contained. Area controlled.
Explosion	Existing and potential hazards removed, destroyed and/or isolated.
Abnormal Effluent	Liquid discharge is terminated, sampling is completed, and statistics verified. Public exposure to Offsite radioactive material is reduced or eliminated.  Airborne - Source identified and analysis complete. Release is terminated and its cause is under control. All Onsite and Offsite monitoring data is evaluated. Public exposure to Offsite radioactive material is reduced or eliminated.

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GUIDELINES TO TERMINATE OF THE EMERGENCY

## B. Specific Examples (Cont.)

CATEGORY	TERMINATION GUIDELINES
Control Room Evacuation	Plant in normal emergency shutdown from remote stations. Cause of evacuation identified and under control. No radiological conditions exist which cause the Control Room to become uninhabitable.
Plant Shutdown Functions (not available or failed)	Unit is shut down by normal or emergency means. Unit is in cold shutdown and there is no potential for uncontrolled criticality.
Fuel Handling Accident - New or Spent Fuel Damage, Channeled or Unchanneled	Fuel elements, segments, pellets not in a critical configuration. Airborne activity has been evaluated and accountability of components complete.
Water Loss - LOCA Abnormal Primary Coolant Leak	Source of water loss is defined. Ability to restore or maintain water level adequate for proper cooling.
Earthquake or Other Natural Disaster	The plant has been returned to a safe condition. Threat of aftershock has passed and any damage has been evaluated as to risk, if any.
Security Threat	Threat to site is terminated. Probability of recurrence has been removed, with the concurrence of Security Supervisor and State, Local and Federal Officials.

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