FENOC
FirstEnergy Nuclear Operating Company

Perry Nuclear Power Plant
10 Center Road
P.O. Box 97
Perry, Ohio 44081

November 10, 2003
PY-CEI/NRR-2749L

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Perry Nuclear Power Plant
Docket No. 50-440
Submittal of Emergency Plan
Implementing Instructions

Gentlemen:

Pursuant to 10 CFR 50 Appendix E, enclosed are changes to the Emergency Plan Implementing Instructions (EPIs) for the Perry Nuclear Power Plant. The changes have been reviewed in accordance with 10CFR50.54(q) and it has been determined that the changes do not decrease the effectiveness of the Emergency Plan.

These changes constitute revisions, temporary changes, or reissued pages. Please follow the updating instructions per the attached Controlled Document Instruction Sheet and return the signed Acknowledgment of Receipt form.

If you have questions or require additional information, please contact me at (440) 280-5589.

Very truly yours,

David L. Bauguess, Supervisor
Emergency Planning Unit

DLB:byr

Enclosure

cc: NRR Project Manager
NRC Resident Inspector
NRC Region III, Incident Response Center w/attachments

A045

FIRSTENERGY CORPORATION

PERRY NUCLEAR POWER PLANT

UNIT 1 & 2

ACKNOWLEDGMENT OF RECEIPT

Title Emergency Plan Implementing Instructions EPI-A1/ Rev. 7

Control No. 60

Letter No./Date PY-CEI/NRR-2749L / November 10, 2003

_____ _____

Signature Date

_____

Title

Return to:

Perry Nuclear Power Plant
Attn: B.Y. Richardson, A240
P. O. Box 97
Perry, Ohio 44081

FIRSTENERGY CORPORATION

Perry Nuclear Power Plant

Controlled Document Instruction Sheet

Manual: Emergency Plan Implementing Instructions EPI-A1/ Rev. 7

Control Number 60

Revision	
Remove Revision	Remove and Replace
6	Reissue Entire Document

PERRY OPERATIONS MANUAL

PNPP

[redacted]

No. 060

Info Only

Emergency Plan Implementing Instruction

TITLE: EMERGENCY ACTION LEVELS

REVISION: 7 EFFECTIVE DATE: 11-6-03

PREPARED: Lawrence W. Burgwald 3-28-03
/ Date

EMERGENCY ACTION LEVELS

Table of Contents

SCOPE OF REVISION:

Periodic Review - Required

Rev. 7 -
1. Incorporate CR 02-02429, CA Number 1.
2. Change STA to SE.
3. Change Transport of Radioactively Contaminated Person NRC Notification from 4 hours to an 8 hour notification per PAP-1604.
4. Deleted commitment F00735, this commitment was archived.
5. Correct typographical errors.
6. Change Shift Supervisor to Shift Manager.
7. Improved EAL flowpaths where possible to reflect improved ladder decision making techniques.
8. Minor format changes.

EMERGENCY ACTION LEVELS

1.0 PURPOSE

To provide specific criteria based on <NUMARC/NESP-007> for the classification of an abnormal plant event transient, or external event affecting or having the potential to affect plant operations or personnel safety, into one of the four (4) <NUREG-0654> defined emergency classes.

2.0 REFERENCES

2.1 Source References

1. Emergency Plan for Perry Nuclear Power Plant (PNPP) Docket No. 50-440
2. ODCM: Appendix C

2.2 Use References

1. NUREG 0654: Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
2. NUMARC/NESP-007: Methodology for Development of Emergency Action Levels (Revision 2)
3. Title 10, Part 50.47 of the Code of Federal Regulations (CFR): Emergency Plans
4. Title 10, Part 50.72 of the Code of Federal Regulations (CFR): Immediate Notification Requirements for Operating Nuclear Power Reactors
5. Technical Specifications (TS), Perry Nuclear Power Plant, Unit No. 1
6. EPI-A2: Emergency Actions Based on Event Classification
7. EPI-A10: Re-Entry/Recovery
8. EPI-B1: Emergency Notification System
9. EPI-B4: First Aid and Medical Care
10. EPI-B9: Emergency Records

11. ONI-C61: Evacuation of the Control Room

12. ONI-P54: Fire

13. ONI-P56-2: Security Threat

14. ONI-R10: Loss of AC Power

15. PAP-1604: Reports Management

16. PAP-1701: Records Management Program

17. PAP-1910: Fire Protection Program

18. PEI-B13: RPV Control

19. PEI-T23: Containment Control

20. PEI-N11: Containment Leakage Control

21. IOI-11: Shutdown from Outside Control Room

22. PNPP Physical Security Plan

23. PSI-0007: Reporting Emergency Plan Related Communication Equipment Problems

24. Commitments addressed in this document:

F01626	P00035	P00067
H00037	P00038	P00089
L00406	P00055	P00091

3.0 DEFINITIONS

3.1 Applicable Mode

The operating mode existing at the time of event or initiation of transient.

3.2 Challenge

Any condition that, in the Emergency Coordinator's judgment, would likely result in a loss of one or more of the fission product barriers (i.e., fuel cladding, Reactor Coolant System (RCS), or Containment) in the next 1-3 hours.

3.3 Emergency Action Level (EAL)

A predetermined, site-specific, observable threshold or entry criteria for a given Initiating Condition that places the plant in a given emergency class. An EAL entry criteria can be: an equipment status indicator; a measurable parameter (onsite or offsite); a discrete, observable event; results of analyses; entry into specific emergency operating procedures; or another phenomenon which, if it occurs, indicates entry into a particular emergency class. Refer to EAL Entry Criteria (Attachment 2).

3.4 Emergency Class

One of a minimum set of names or titles, established by the Nuclear Regulatory Commission (NRC) under <10CFR50.47>, for grouping off-normal nuclear power plant conditions according to (1) their relative radiological seriousness, and (2) the time-sensitive onsite and offsite radiological emergency preparedness actions necessary to respond to such conditions. The existing radiological emergency classes, in ascending order of seriousness, are called:

- Unusual Event
- Alert
- Site Area Emergency
- General Emergency

3.5 Event Category

A collection of similar Initiating Conditions grouped to allow for the prompt recognition of the transient or event and assessment of severity based on the four emergency classes.

3.6 Functional

A system, subsystem, train, component or device, though degraded in equipment condition or configuration, is FUNCTIONAL if it is capable of maintaining respective system parameters within acceptable design limits.

3.7 Initiating Condition (IC)

One of a predetermined subset of plant conditions defined by <NUMARC/NESP-007>, where either the potential exists for a radiological emergency or such an emergency has occurred. Initiating Conditions are established based on the four emergency classes required under <10CFR50.47>. Refer to Initiating Condition Index (PNPP No. 8852, Attachment 1).

3.8 Loss

Unless defined by specific EAL indication, LOSS shall be defined as a state of inoperability in which FUNCTIONAL and operable status cannot be maintained. A system, subsystem, train, component or device is not lost if its functionality is assured.

3.9 Operating Mode

There are six applicable operating modes associated with the Initiating Conditions used in this document: numbers 1 through 5, and the letter "D". Numbers 1 - 5 correspond to Modes 1 through 5 defined by <Technical Specifications> Table 1.1-1; the letter "D" stands for the reactor DEFUEL condition.

3.10 Safe Shutdown Buildings/Areas

For event classification purposes, Safe Shutdown Buildings/areas are considered to be the following locations:

Control Complex (all elevations)
Auxiliary Building (all elevations)
Intermediate Building (all elevations)
Fuel Handling Building (all elevations)
Reactor Building (all elevations)
Emergency Service Water Pump House (all elevations)
Electrical Duct Chase Leading to ESW Building
Diesel Generator Building (all areas except the Unit 2 Division 1, 2, and 3 DG Rooms)
Steam Tunnel (all elevations)
Diesel Generator Fuel Oil Storage Area
Condensate Storage Tank
Intake/Discharge Structure

3.11 Significant Transient

Includes response to automatic or manually initialed functions such as scrams, runbacks involving greater than 25% thermal power change, ECCS injection, or thermal power oscillations of 10% or greater.

3.12 Unplanned

Any activity which is not previously approved. If an EAL entry condition is satisfied due to preplanned maintenance or testing, the emergency classification is NOT declared. The unplanned designation shall include any activity, including preplanned maintenance or testing, in which the system is inadvertently rendered unavailable.

3.13 Valid

An indication or report condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's truth is removed. Implicit in this definition is the need for timely assessment, i.e., within 15 minutes.

4.0 RESPONSIBILITIES

4.1 Control Room Shift Manager/TSC Operations Manager/EOF Emergency Coordinator

As the designated Emergency Coordinator, classify an Emergency-Plan event per this instruction when actual or potential plant conditions dictate and ensure required actions are implemented per <EPI-A2>.

4.2 Shift Engineer/TSC Operations Advisor/EOF Plant Operations Advisor

Advise the designated Emergency Coordinator of any Initiating Conditions, which are being approached or EAL entry criteria met upon initiation of an abnormal or inadvertent plant event.

4.3 Plant Personnel

Inform the Control Room of any conditions or symptoms indicated by instrument readings or direct observations that could indicate a real or potential emergency.

5.0 ACTIONS

The following actions are intended as guidance. Knowledge of plant conditions and/or the extent of the emergency may require additional response actions. In all cases, this instruction should be combined with the sound judgment of the Emergency Coordinator to arrive at the proper classification for a particular set of circumstances. <H00037, P00038>

5.1 Event Assessment and Event Classification

5.1.1 Ensure appropriate Off-Normal Instructions (ONIs), Plant Emergency Instructions (PEIs) or other applicable plant instructions and procedures are being implemented to stabilize plant conditions.

The classification shall be of high priority following the performance of the required immediate operator actions and must be made promptly if a radioactive release to the public is probable so that offsite agencies can mobilize and implement the necessary precautions to protect the health and safety of the public.

5.1.2 Implement <EPI-B4> if the event involves personnel injuries.

1. Upon being notified that the victim(s) being transported to an offsite medical facility is suspected or known to be radiologically contaminated, perform the following per <EPI-B4>:

   a. Contact an Emergency Planning Unit (EPU) Representative using the Integrated On-Call Report found on the Perry Web under Emergency Response Organization, and direct the individual to notify the State of Ohio and Lake County Emergency management Agencies (EMAs) of the incident.

      NOTE: If the injury(ies) occur during evening hours, this notification can be deferred until the next day.

   b. Perform an eight (8) hour notification to the NRC per <PAP-1604> in accordance with <10CFR50.72(b)(3)(xii)>.

5.1.3 Implement <ONI-P54> and/or <PAP-1910> if the event involves a confirmed, probable or possible fire. <L00406>

5.1.4 Determine the affected areas of the plant and implement an evacuation of the building or localized plant area. <F01626>

5.1.5 For an abnormal event or evolution, which is not classifiable per this instruction, use the Integrated On-Call Report to contact additional plant expertise or manpower if desired for assessment and mitigation purposes.

1. For situations in which the event requires a prompt, coordinated response, refer to Section 5.5 to initiate staffing of the Technical Support Center (TSC) or Operations Support Center (OSC), if warranted.

5.1.6 Classify the emergency as follows:

NOTE: The designated Emergency Coordinator may not delegate the decision to initially classify, reclassify, or terminate an emergency event per <EPI-A1>. <P00035>

1. Using PNPP No. 8852, Attachment 1, identify the emergency by event category and determine the most appropriate Initiating Condition (IC) based on the operating mode at the time of event initiation, plant conditions, and severity levels.

   NOTE: Initiating Condition Index operator aid(s) are located in the Control Room, Simulator Room, Technical Support Center (TSC), Emergency Operations Facility (EOF), and the Backup EOF.

2. Refer to Attachment 2 for the applicable Initiating Condition(s) to determine whether the criteria are met for the operating mode(s) listed.

   NOTE 1: For those EALs with a permitted out of service time or duration (e.g., 15 minutes during electrical transients), the following shall apply:

   - The clock should start at the time of discovery unless there is firm evidence to believe otherwise in which case the clock start time is retroactive.
   - The declaration should be made as soon as it is determined that the transient will last longer than the allotted time. In this case, the declaration shall not be postponed until the permitted time has expired.

   NOTE 2: Fission Product Barrier Matrix operator aids are located in the Control Room, Simulator Room, TSC, EOF and at the Backup EOF.

3. Declare an emergency class when all the conditions listed in at least one EAL column have been met, and implement <EPI-A2>. <H00037>

   a. When several Initiating Conditions are met, declare the most severe emergency class.

A 15-minute goal has been established for assessing and classifying an emergency once indications are available to Control Room operators that an EAL has been exceeded.

   b. For TRANSITORY EVENTS, in which an event is classifiable in accordance with this instruction but becomes a lower classifiable event before being declared (i.e., Alert vs. Site Area Emergency), perform the following:

      1) Declare only the lower classification and implement <EPI-A2>.

      2) Provide a brief description of the transitory event using Block 3c on the PNPP Initial Notification Form.

c. For an Unusual Event or Alert, which was classifiable in accordance with <EPI-A1> but no longer meets the criteria for any event at time of declaration, perform the following:

> Events which have met the criteria for either a Site Area Emergency or General Emergency can not be simultaneously classified and terminated. These events must be handled in accordance with Sections 5.2 or 5.3.

1) Implement <EPI-A2>, and complete the required actions for a simultaneous classification and termination of an event.

2) Complete Blocks 3.a & 3.b on the PNPP Initial Notification Form to notify the NRC, State of Ohio, and local counties per <EPI-B1>.

4. Periodically re-evaluate emergency class and applicable Initiating Conditions per Steps 2 and 3 above, and escalate the classification, or downgrade/terminate from the event per Sections 5.2 and 5.3. <P00055>

a. Due to the severity of a General Emergency and its impact on Federal, State and local county emergency management agencies, a General Emergency shall not be downgraded. Instead, the event shall be terminated and a predetermined Recovery phase entered from a General Emergency when the criteria in Section 5.3 are met.

5.2 **Downgrading Event** <P00089>

5.2.1 Consider downgrading from a **Site Area Emergency only** to either an Alert or an Unusual Event when the following conditions are met:

> Due to the marginal benefit for the plant and State and local county response agencies, the event shall be terminated from an Alert in lieu of downgrading from an Alert to an Unusual Event.

1. The EAL entry criteria for a Site Area Emergency are no longer met; however, the entry criteria for an Alert or an Unusual Event are still applicable.

> The EALs have been written towards the initial classification and upgrading of an emergency event. As a result, their logic may not be applicable to downgrading the event. Therefore, the EALs should be evaluated with respect to the intent of the criteria established for each emergency classification.

2. Downgrading the event would preclude an unnecessary activation or mobilization of plant, Federal, State, and local county response facilities and personnel.

3. Plant conditions are stable, and the prognosis for improvement is good.

4. Any fire, natural event or hazard to plant operations is under control or has ceased, and a preliminary assessment of the extent of damage has been completed.

5. Non-routine or abnormal releases of radioactive material to the environment are under control or terminated.

6. No protective actions for the general public are in effect, such as a precautionary shelter order.

7. Discussions have been held with the NRC, and State and local county officials, and an agreement has been reached to downgrade the event.

The concern is that downgrading the event may affect the plant's ability to support on-going State and local county emergency response activities which were initiated as a result of the classification of a Site Area Emergency.

5.3 **Event Termination/Recovery**

5.3.1 Terminate from any emergency class and enter into Recovery, if warranted or required, when the following criteria are met:

Entry into a Recovery phase and the establishment of a Recovery Organization is mandatory when terminating from a Site Area Emergency or General Emergency classification. Entry into Recovery from an Alert is optional.

1. The EAL entry criteria are no longer met for the event and for lower classifications.

----------OR----------

Plant long-term corrective action and/or clean-up activities resulting from the event, preclude exiting the EALs.

2. The reactor is in a stable condition, with a reliable means of long-term decay heat removal available, if required.

3. Containment integrity, if required, is maintained and not threatened.

4. Any fire, natural event (e.g., earthquake, high groundwater level), or hazard to plant operations (i.e., toxic gas, unusual aircraft activity) is under control or has ceased.

5. A preliminary assessment of the cause, extent of damage, and impact has been completed.

6. Radiation levels in affected plant areas are controllable or have decreased to within acceptable levels.

7. Areas of the plant affected by the emergency have been defined.

8. Non-routine or abnormal releases of radioactive material to the environment are under control or terminated.

AND

No further potential for a significant uncontrolled release exists.

9. No further surveillances relative to offsite protective actions are needed (except for the control of food stuffs, water, and offsite contamination or environmental assessment activities).

AND

Terminating the emergency will not impact any offsite protective actions which may be in progress.

10. Offsite radiological conditions do not prohibit or seriously restrict access of personnel and material to the Perry Plant site.

11. All pre-Recovery phase actions required by <EPI-A10> have been completed.

12. Consult with NRC, State of Ohio, and local county officials regarding the decision to terminate the emergency.

The intent of this action is to involve the NRC, State and local counties in event decision-making; however, this action is not intended to delay or hinder the Perry Plant's ability to simultaneously classify and terminate from an Unusual Event or Alert.

5.4 Classification After the Event

5.4.1 Perform the following actions when it has been discovered that an Emergency Plan classification has been missed (during shift turnover, paperwork review, etc.), and the plant no longer meets the conditions of any EAL:

1. Classify the event, but do not implement the actions outlined in <EPI-A2>.

2. Notify the NRC within 1 hour of classification and initiate event notification/reportability actions in accordance with <PAP-1604>.

3. Direct the on-call EPU Representative to inform the State of Ohio and local county Emergency Management Agencies (EMAs) using a commercial telephone; record the names and date/times of individuals contacted in the Plant Log.

   a. When a classification occurs during evening hours, calls to State and local EMAs can be deferred until the next day at the discretion of the Shift Manager and on-call EPU Representative.

5.5 Staffing of Emergency Facilities for Non-Emergency Plan Events

The Shift Manager, based on his assessment of the situation can use the Emergency Response Organization (ERO) to mobilize and coordinate support for the Control Room staff. However, augmentation of staff shall be achieved using the Integrated On-Call Report whenever possible.

5.5.1 Announce the activation of the TSC, EOF, PIRT, JPIC, and/or OSC over the Plant Public Announcing (PA) System.

5.5.2 Mobilize required TSC, EOF, PIRT, JPIC and/or OSC staff by performing the following:

1. Select the appropriate message (#17 thru #23) on the ERO Pager Messages form (PNPP No. 9100) contained in <EPI-B1>.

2. Specify in the narrative summary block on the form: 1) that the facility activation is in response to a non-emergency plan event, and 2) brief summary of event conditions and support required.

3. Forward the completed form to the Secondary Alarm Station (SAS) and direct them to activate the Emergency Paging System ("beepers").

5.5.3 DO NOT perform any formal notifications to the NRC, State of Ohio, or local counties per <EPI-B1>.

NOTE: An informal notification to the State of Ohio and local counties may be performed by the On-Call Emergency Planning Representative after first consulting with the Shift Manager.

5.5.4 Upon the arrival of facility staff, coordinate activities in support of the Control Room's assessment and mitigation of the event; DO NOT ENTER <EPI-A2>, OR TRANSFER THE EMERGENCY COORDINATOR RESPONSIBILITIES OUTLINED IN SECTION 4.1 TO THE TSC.

5.5.5 Assess possible entry into the Emergency Plan per Section 5.1.6, and enter <EPI-A2> as applicable if the EAL criteria outlined in this instruction are met.

5.6 Records

5.6.1 Records Handling

1. The records generated by emergency response personnel will be collected and maintained by Emergency Planning Unit (EPU) pursuant to <EPI-B9>. The Emergency Records Package will be transferred to Records Management pursuant to <PAP-1701>.

5.6.2 Records Capture

The following records are generated by this document:

Quality Assurance Records

None

Non-Quality Records

None

INITIATING CONDITION INDEX

PNPP No. 8852 Rev. 11/30/00 EPI-A1

EVENT CATEGORY	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
A: FISSION PRODUCT BARRIER DEGRADATION	Fuel clad degradation Page 16 - AU1	Any loss or challenge to the Fuel Clad barrier. Page 18 (FPB Matrix) - AA1	Loss of RPV water level that has or will uncover fuel. Page 17 - AS1	Loss of two barriers, AND a loss or challenge to the third barrier. Page 18 (FPB Matrix) - AG1
	Reactor Coolant System leakage. Page 16 - AU2	Any loss or challenge to the Reactor Coolant System barrier. Page 18 (FPB Matrix) - AA2	Either a challenge or loss of both the Fuel Clad barrier AND Reactor Coolant System barrier. Page 18 (FPB Matrix) - AS2	
	Any loss or challenge to the Containment barrier. Page 18 (FPB Matrix) - AU3		Challenge to either the Fuel Clad barrier OR Reactor Coolant System barrier, AND the loss of any additional barrier. Page 18 (FPB Matrix) - AS3	
B: LOSS OF DECAY HEAT REMOVAL FUNCTIONS	NOT APPLICABLE	*Inability to maintain plant in COLD* SHUTDOWN Page 19 - BA1	*Complete loss of functions needed to* achieve COLD SHUTDOWN Page 20 - BS1	NOT APPLICABLE
C: LOSS OF SHUTDOWN FUNCTIONS OR FAILURE *TO SHUTDOWN*	Inability to reach required shutdown within Technical Specification limits Page 21 - CU1	Failure to initiate or complete an automatic Reactor Scram once an RPS function is required. Page 22 - CA1	Failure to initiate or complete an automatic Reactor Scram once an RPS function is required, AND a manual Scram was NOT successful. Page 23 - CS1	Failure to initiate or complete a successful shutdown AND indication of an extreme challenge to the ability to cool the core. Page 25 - CG1
D: A.C. POWER LOSS	Loss of all offsite power to Division 1 and 2 EH Essential Busses for greater than 15 minutes. Page 27 - DU1	Power capability to Division 1 and 2 EH Essential Busses reduced to a single power source for greater than 15 minutes, such that any additional single failure would result in a Station Blackout. Page 28 - DA1	Loss of all offsite power AND onsite power to Division 1 and 2 EH Essential Busses for greater than 15 minutes. Page 30 - DS1	Prolonged loss of all offsite power AND onsite power to Division 1 and 2 EH Essential Busses, AND continuing degradation of core cooling capability. Page 31 - DG1
		Loss of all offsite power AND onsite power to Division 1 and 2 EH Essential Busses for greater than 15 minutes. Page 29 - DA2		
E: D.C. POWER DEGRADATION	Degradation of Division 1 and 2 essential DC power for greater than 15 minutes. Page 33 - EU1	NOT APPLICABLE	Degradation of Division 1 and 2 essential DC power for greater than 15 minutes. Page 34 - ES1	NOT APPLICABLE
F: FIRE OR EXPLOSION	Fire within a Safe Shutdown Building NOT extinguished within 15 minutes. Page 35 - FU1	Fire OR explosion affecting the operability of plant safety systems required to establish or maintain safe shutdown. Page 37 - FA1	NOT APPLICABLE	NOT APPLICABLE
	Explosion affecting a Safe Shutdown Building. Page 36 - FU2			
G: INCREASED PLANT RADIATION LEVELS	Unexpected increase in plant radiation levels. Page 39 - GU1	Increases in radiation levels within Safe Shutdown Buildings that impede operation of systems required to maintain safe operations OR to establish or maintain COLD SHUTDOWN. Page 41 - GA1	NOT APPLICABLE	NOT APPLICABLE
	Uncontrolled fuel pool water level decrease with irradiated fuel outside the RPV remaining covered. Pge 40 - GU2	Major damage to irradiated fuel. Page 42 - GA2		

INITIATING CONDITION INDEX

PNPP No. 8852 Rev. 11/30/00

EPI-A1

EVENT CATEGORY	MODE UNUSUAL EVENT	MODE ALERT	MODE SITE AREA EMERGENCY	MODE GENERAL EMERGENCY
H: INCREASED RADIATION RELEASE TO THE ENVIRONMENT	Any unplanned release of gaseous radioactivity to the environment that exceeds two times the ODCM Control limit for 60 minutes or greater. Page 43 - HU1	Any unplanned release of gaseous radioactivity to the environment that exceeds 200 times the ODCM Control limit for 15 minutes or greater. Page 45 - HA1	Site Boundary dose resulting from an actual or imminent release of gaseous radioactivity that exceeds 100 mRem TEDE dose OR 500 mRem CDE Child Thyroid dose for the actual OR projected duration of the release. Page 47 - HS1	Site Boundary dose resulting from an actual or imminent release of gaseous radioactivity that exceeds 1000 mRem TEDE OR 5000 mRem CDE Child Thyroid dose for the actual or projected duration of the release. Page 48 - HG1
	Any unplannned release of liquid radioactivity to the environment that exceeds two times the ODCM Control limit for 60 minutes or greater. Page 44 - HU2	Any unplanned release of liquid radioactivity to the environment that exceeds 200 times the ODCM Control limit for 15 minutes or greater. Page 46 - HA2		
I: CONTROL ROOM EVACUATION	NOT APPLICABLE	Control Room Evacuation has been initiated. Page 49 - IA1	Control Room evacuation has been initiated, AND plant control CANNOT be established within 15 minutes. Page 50 - IS1	NOT APPLICABLE
J: LOSS OF ANNUNCIATORS OR INDICATIONS	Loss of most annunciators or indication in the Control Room for greater than 15 minutes. Page 51 - JU1	Loss of most annunciators or indication in the Control Room with either: (1) a significant transient in progress; OR (2) compensatory indications are NOT available. Page 52 - JA1	Inability to monitor a significant transient in progress. Page 53 - JS1	NOT APPLICABLE
K: LOSS OF COMMUNICATIONS	Loss of onsite OR in-plant communications capabilities. Page 55 - KU1	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
	Significant degradation of offsite communications capabilities. Page 56 - KU2			
L: NATURAL OR DESTRUCTIVE PHENOMENA	Natural OR destructive phenomena affecting the Protected Area boundary. Page 57 - LU1	Natural OR destructive phenomena affecting Safe Shutdown Buildings. Page 58 - LA1	NOT APPLICABLE	NOT APPLICABLE
M: RELEASE OF TOXIC OR FLAMMABLE GAS	Release of toxic OR flammable gasses affecting the Protected Area boundary deemed detrimental to the safe operation of the plant. Page 59 - MU1	Release of toxic OR flammable gases within a Safe Shutdown Building which jeopardizes operation of systems required to maintain safe operations OR to establish or maintain COLD SHUTDOWN. Page 60 - MA1	NOT APPLICABLE	NOT APPLICABLE
N: SECURITY EVENTS	Confirmed security event which indicates a potential degradation in the level of safety of the plant. Page 61 - NU1	Security event in the plant Protected Area. Page 62 - NA1	Security event in a plant Vital Area. Page 63 - NS1	Security event resulting in loss of ability to reach and maintain COLD SHUTDOWN. Page 64 - NG1
O: EMERGENCY COORDINATOR'S JUDGEMENT	Other conditions existing, which in the judgement of the Emergency Coordinator, warrant declaration of an Unusual Event. Page 65 - OU1	Other conditions existing, which in the judgement of the Emergency Coordinator, warrant declaration of an Alert. Page 66 - OA1	Other conditions existing, which in the judgement of the Emergency Coordinator, warrant declaration of a Site Area Emergency. Page 67 - OS1	Other conditions existing, which in the judgement of the Emergency Coordinator, warrant declaration of a General Emergency. Page 68 - OG1

EAL ENTRY CRITERIA

Category A: Fission Product Barrier Degradation

Initiating Conditions	Entry Criteria	
AU1 **Fuel clad degradation** **Applicable Modes:** 1 2 3 4 5	High Offgas pretreatment air activity greater than the Technical Specification 3.7.5.	Reactor Coolant System sample indicates activity greater than Technical Specification 3.4.8 limits

AU1

UNUSUAL EVENT

NOTE

Fuel clad degradation is NOT an issue when the Reactor is defueled. Damage to fuel in spent fuel pools is addressed in GU1.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria			
AU2 **Reactor Coolant System leakage** **Applicable Modes:** 1 2 3	Greater than 10 gpm unidentified leakage in Drywell.	Greater than 30 gpm total leakage in Drywell averaged over the previous 24 hour period.	Greater than 30 gpm total leakage in Drywell. Greater than 2 gpm increase in unidentified leakage within the previous 24 hour period.	**AU2** **UNUSUAL EVENT**

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria
AS1	RPV water level CANNOT be maintained greater than 0".
Loss of RPV water level that has or will uncover fuel **Applicable Modes:** 1 2 3 4 5	Reactor is "shutdown under all conditions without boron"

AS1

SITE AREA EMERGENCY

NOTE

AS1 is applicable only to non-ATWS situations in which RPV level was NOT intentionally lowered per <PEI-B13> as a means of power control. Refer to Event Category "C" for classification under ATWS conditions in which RPV water level is intentionally lowered.

EAL ENTRY CRITERIA

FISSION PRODUCT BARRIER MATRIX

PNPP No. 9655 Rev. 3/24/03

EPLAN/EPI-A1/PSI-0019

		REACTOR PRESSURE VESSEL LEVEL		DRYWELL RADIATION	REACTOR COOLANT SYSTEM ACTIVITY	EMERGENCY COORDINATOR JUDGEMENT
LOSS CRITERIA		Entry into SAG-1, Primary Containment Flooding.[3]		Drywell radiation monitor reading greater than 4,000 Rem/hr.	Sample activity is equal to or greater than 300 uCi/gm dose equivalent Iodine-131.[5]	Any condition that, in the judgment of the Emergency Coordinator indicates loss of the Fuel Clad barrier.[1]
CHALLENGE CRITERIA		RPV level is less than 0".[2]	RPV level CANNOT be determined.	NOT APPLICABLE	NOT APPLICABLE	Any condition that, in the judgment of the Emergency Coordinator indicates a challenge to the Fuel Clad barrier.[1]

INSTRUCTIONS

1. For each of the three barriers, determine if any LOSS or CHALLENGE criteria have been met.
2. Compare the barrier LOSS(es) and CHALLENGE(s) to the initiating conditions listed, and make the appropriate event declaration.

INITIATING CONDITIONS

UNUSUAL EVENT

AU3 Any loss or challenge to the Containment barrier.
Modes: 1 2 3 4 5

ALERT

AA1 Any loss or challenge to Fuel Clad barrier.
Modes: 1 2 3 4 5

AA2 Any loss or challenge to the Reactor Coolant System barrier.
Modes: 1 2 3 4 5

SITE AREA EMERGENCY

AS2 Either a challenge or loss of both the Fuel Clad barrier AND Reactor Coolant System barrier.
Modes: 1 2 3 4 5

AS3 Challenge to either the Fuel Clad barrier OR Reactor Coolant System barrier, AND the loss of any additional barrier.
Modes: 1 2 3 4 5

GENERAL EMERGENCY

AG1 Loss of two barriers, AND a loss or challenge to the third barrier.
Modes: 1 2 3 4 5

		REACTOR PRESSURE VESSEL LEVEL	DRYWELL RADIATION	REACTOR PRESSURE CONTROL			DRYWELL PRESSURE	REACTOR COOLANT SYSTEM BYPASS	EMERGENCY COORDINATOR JUDGEMENT
LOSS CRITERIA		RPV level less than 0".[2]	Drywell radiation monitor reading greater than 135 Rem/hr.	SRV stuck open.	An SRV is being cycled to control RPV pressure.	Emergency Depressurization is required.	Drywell pressure greater than 1.68 psig.	MSL break outside containment exceeding one or more MSIV Tech. Spec. allowable values.	Any condition that, in the judgment of the Emergency Coordinator, indicates loss of the RCS barrier.[1]
				Sample activity is equal to or greater than 300 uCi/gm dose equivalent Iodine-131.[5]			Indication of RCS leakage inside the Drywell.	Containment penetration does NOT isolate on a valid closure signal.	
								Immediate Operator actions in the Control Room are NOT successful in isolating affected penetration.	
CHALLENGE CRITERIA		NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE			NOT APPLICABLE	Unisolable primary system discharging outside Containment per PEI-N11.[4]	Any condition that, in the judgment of the Emergency Coordinator, indicates a challenge to the RCS barrier.[1]

		REACTOR PRESSURE VESSEL LEVEL	DRYWELL RADIATION	CONTAINMENT HYDROGEN	CONTAINMENT PRESSURE			CONTAINMENT ISOLATION		EMERGENCY COORDINATOR JUDGEMENT
LOSS CRITERIA		Entry into SAG-1, Primary Containment Flooding.[3]	NOT APPLICABLE	Intentional venting of Containment required per PEI-M51/M56.	Intentional venting of Containment required per PEI-T23.			Containment penetration does NOT isolate on a valid closure signal.	Unisolable primary system discharging outside Containment per PEI-N11.[4]	Any condition that, in the judgment of the Emergency Coordinator, indicates loss of the Containment barrier.[1] (Loss of the Containment barrier may include a rapid unexplained decrease in Containment pressure following an initial increase.)
								Immediate Operator actions in the Control Room are NOT successful in isolating affected penetration.		
								Pathway to the environment exists via penetration.		
CHALLENGE CRITERIA		NOT APPLICABLE	Containment radiation monitor reading greater than 20,000 Rem/hr.	NOT APPLICABLE	In the UNSAFE region on the HCL figure.	HCL figure limits have been exceeded per the PEI Bases Document.	Containment pressure is greater than 15 psig and increasing.	NOT APPLICABLE		Any condition that, in the judgment of the Emergency Coordinator, indicates a challenge to the Containment barrier.[1]

FOOTNOTES:
1. Those thresholds for which a LOSS or CHALLENGE is determined to be IMMINENT (i.e., within the next 3 hours), classify as though the threshold(s) has been exceeded.
2. RPV level is less than 0" is both a FUEL CLAD BARRIER CHALLENGE CRITERIA and a REACTOR COOLANT SYSTEM BARRIER LOSS CRITERIA.
3. Entry into SAG-1, Primary Containment Flooding is both a FUEL CLAD BARRIER LOSS CRITERIA and a CONTAINMENT BARRIER LOSS CRITERIA.
4. Unisolable primary system discharging outside containment per PEI-N11 is both a REACTOR COOLANT SYSTEM BARRIER CHALLENGE CRITERIA and a CONTAINMENT BARRIER LOSS CRITERIA.
5. Sample activity is equal to or greater than 300 uCi/gm dose equivalent Iodine-131 is both a FUEL CLAD BARRIER LOSS CRITERIA and a contributor to a REACTOR COOLANT SYSTEM BARRIER LOSS CRITERIA.

EAL ENTRY CRITERIA

Category B: Loss of Decay Heat Removal Functions

Initiating Conditions	Entry Criteria	
BA1 Inability to maintain plant in COLD SHUTDOWN Applicable Modes: 4 5	Loss of Shutdown Cooling Mode function for RHR loop A.	
	Loss of Shutdown Cooling Mode function for RHR loop B.	
	RCS temperature exceeds COLD SHUTDOWN limit of 200°F per Technical Specification Table 1.1-1.	Uncontrolled temperature rise approaching 200°F RCS temperature.

BA1

ALERT

NOTE

The IC remains applicable for situations in which an increase in RCS temperature greater than 200°F results in a change to Mode 3.

The above criteria is met as soon as it becomes known that sufficient cooling CANNOT be restored to maintain temperature below 200°F regardless of the current temperature. The intent of BA1 is NOT to classify based on an unplanned excursion above 200°F when heat removal capability is available.

"Uncontrolled" means that RCS temperature increase is NOT the result of planned actions by plant staff.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
BS1 **Complete loss of functions needed to achieve COLD SHUTDOWN** **Applicable Modes:** 1 2 3	RHR Loops A and B are NOT capable of lowering RPV temperature.		**BS1** **SITE AREA EMERGENCY**
	The plant is operating in the UNSAFE Region on the HCL figure.	HCL figure limits have been exceeded per the PEI Bases Document.	

EAL ENTRY CRITERIA

Category C: Loss of Shutdown Functions or Failure to Shutdown

Initiating Conditions	Entry Criteria
CU1 **Inability to reach required shutdown within Technical Specification limits** **Applicable Modes:** **1 2 3**	Plant is NOT brought to the required operating mode within the Technical Specification Required Action Completion Time following entry into an LCO.

CU1

UNUSUAL EVENT

NOTE

Declaration should be made because of equipment failures that prevent the performance of an orderly shutdown or failure to meet the shutdown completion time from the time discovered and a required action being entered. Declaration of an Unusual Event is based on the time at which the specified completion time period elapses and is NOT related to how long a condition may have existed before it was discovered.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria	
CA1 **Failure to initiate or complete an automatic Reactor Scram once an RPS function is required** **Applicable Modes:** 1 2	Actuation of RPS has occurred or should have occurred.	Actuation of RRCS has occurred or should have occurred.
	The reactor is NOT "shutdown under all conditions without boron."	

CA1

A L E R T

NOTE

CA1 is applicable if either Mode 1 or 2 existed when the transient started and NOT the mode which exists at the time of classification.

Entry criteria is applicable for actions taken by an Operator to manually initiate either RPS or RRCS prior to or after exceeding an automatic actuation setpoint.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
	Actuation of RPS has occurred or should have occurred.	Actuation of RRCS has occurred or should have occurred.	
	The reactor is NOT "shutdown under all conditions without boron."		
CS1 **Failure to initiate or complete an automatic Reactor Scram once an RPS function is required, AND a manual Scram was NOT successful**	Manual operator actions taken at 1H13-P680 to insert control rods were NOT successful in lowering Reactor power to less than 4%.	Reactor power CANNOT be determined.	Suppression Pool temperature is greater than 110°F.
Applicable Modes: 1			

CS1

SITE AREA EMERGENCY

NOTE

Refer to next page.

EAL ENTRY CRITERIA

NOTE

CS1 is applicable if Mode 1 existed when the transient started and NOT the mode which exists at the time of classification. Refer to CA1 for Mode 2 applicability.

"Manual Operator actions" are defined as any set of actions by the Reactor Operator at 1H13-P680 which results in a scram signal. These actions include placing the Reactor Mode Switch in the SHUTDOWN position, arming and depressing the RPS Manual Scram push buttons, and arming and depressing the RRCS Manual ARI push buttons. Injection of boron is NOT considered in reducing reactor power below 4%.

A concurrent challenge to the ability to cool the core would escalate this event to General Emergency per CG1.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
CG1 **Failure to initiate or complete a successful shutdown, AND indication of an extreme challenge to the ability to cool the core**	Actuation of RPS has occurred or should have occurred.	Actuation of RRCS has occurred or should have occurred.	
	The reactor is NOT "shutdown under all conditions without boron."		
	Manual operator actions taken at 1H13-P680 to insert control rods were NOT successful in lowering Reactor power to less than 4%.	Reactor power CANNOT be determined.	Suppression Pool temperature is greater than 110°F.
	Any of the following conditions exist: • Entry into <SAG-1>, Primary Containment Flooding. • In the UNSAFE region on the HCL figure. • HCL figure limits have been exceeded per the PEI Bases Document.		

Applicable Modes:

1					

CG1

GENERAL EMERGENCY

NOTE

CG1 is applicable if Mode 1 existed when the transient started and NOT the mode which exists at the time of classification. Refer to CA1 for Mode 2 applicability.

Entry criteria is applicable for actions taken by an Operator to manually initiate either RPS or RRCS prior to or after exceeding an automatic actuation setpoint.

EAL ENTRY CRITERIA

(INTENTIONALLY BLANK)

EAL ENTRY CRITERIA

Category D: A. C. Power Loss

Initiating Conditions	Entry Criteria	
DU1 **Loss of all offsite power to Division 1 and 2 EH Essential Busses for greater than 15 minutes** **Applicable Modes:** **1 2 3 4 5 D**	ONI-R10 entered for a Loss of Off-site Power (LOOP).	**DU1** **UNUSUAL EVENT**
	Either of the following power sources CANNOT be made available within 15 minutes for energizing bus EH11: • Normal Preferred • Alternate Preferred	
	Either of the following power sources CANNOT be made available within 15 minutes for energizing bus EH12: • Normal Preferred • Alternate Preferred	

NOTE

Failure of either bus EH11 or EH12 to be supplied from its respective diesel generator is evaluated for escalation to an Alert under DA1 for Modes 1, 2 and 3. Failure of both busses EH11 and EH12 to be supplied from their respective diesel generators (Station Black Out) is evaluated for escalation to an Alert under DA2 for Modes 4 and 5 and to a Site Area Emergency under DS1 for Modes 1, 2 and 3.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria
DA1 **Power capability to Division 1 and 2 EH Essential Busses reduced to a single power source for greater than 15 minutes, such that any additional single failure would result in Station Blackout** **Applicable Modes:** 1 2 3	Essential AC power reduced to only <u>one</u> of the following power sources for greater than 15 minutes: • Normal Preferred • Alternate Preferred • Division 1 Diesel Generator • Division 2 Diesel Generator Loss of the single remaining power source will result in a loss of AC power to <u>both</u> busses EH11 and EH12.

<u>DA1</u>

A L E R T

NOTE

Escalation to a Site Area Emergency is evaluated under DS1, for Operating Modes 1, 2 and 3, based on a total loss of AC power to <u>both</u> busses EH11 and EH12.

A total loss of AC power to busses EH11 and EH12 while in Operating Modes 4 and 5 is classified as an Alert under DA2. No escalation path exists to a Site Area Emergency for Operating Modes 4 and 5.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria
DA2 **Loss of all offsite power AND onsite power to Division 1 and 2 EH Essential Busses for greater than 15 minutes.** **Applicable Modes:** 4 5 D	Both busses EH11 and EH12 CANNOT be energized from the Normal Preferred source within 15 minutes. Both busses EH11 and EH12 CANNOT be energized from the Alternate Preferred source within 15 minutes. Both busses EH11 and EH12 CANNOT be energized from the Associated Diesel Generator source within 15 minutes.

DA2

ALERT

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria
DS1 **Loss of all offsite power AND onsite power to Division 1 and 2 EH Essential Busses for greater than 15 minutes**	Both busses EH11 and EH12 CANNOT be energized from the Normal Preferred source within 15 minutes.
	Both busses EH11 and EH12 CANNOT be energized from the Alternate Preferred source within 15 minutes.
	Both busses EH11 and EH12 CANNOT be energized from the Associated Diesel Generator source within 15 minutes.
Applicable Modes: 1 2 3	

DS1

SITE AREA EMERGENCY

NOTE

Escalation to a General Emergency is evaluated under DG1 for Modes 1, 2 and 3, based on a continuing degradation of core cooling capability.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
DG1 **Prolonged loss of all offsite power AND onsite power to Division 1 and 2 EH Busses, AND continuing degradation of core cooling capability** **Applicable Modes:** 1 2 3	Both busses EH11 and EH12 CANNOT be energized from the Normal Preferred source.		
	Both busses EH11 and EH12 CANNOT be energized from the Alternate Preferred source.		
	Both busses EH11 and EH12 CANNOT be energized from the Associated Diesel Generator source.		
	Restoration of power to either of the following busses is NOT likely in less than four hours: • EH11 • EH12	RPV water level less than 0".	RPV water level CANNOT be determined.

DG1

GENERAL EMERGENCY

EAL ENTRY CRITERIA

(INTENTIONALLY BLANK)

EAL ENTRY CRITERIA

Category E: D. C. Power Degradation

Initiating Conditions	Entry Criteria
EU1 **Degradation of Division 1 and 2 essential DC power for greater than 15 minutes** **Applicable Modes:** 4 5	Voltage on ED-1-A buss is less than 105 VDC for greater than 15 minutes. Voltage on ED-1-B buss is less than 105 VDC for greater than 15 minutes.

EU1

UNUSUAL EVENT

NOTE

The same set of conditions as described in this EAL would be classified as Site Area Emergency under ES1 if they occurred during Modes 1, 2, or 3.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria
ES1 **Degradation of Division 1 and 2 essential DC power for greater than 15 minutes**	Voltage on ED-1-A buss is less than 105 VDC for greater than 15 minutes.
	Voltage on ED-1-B buss is less than 105 VDC for greater than 15 minutes.

Applicable Modes:

1	2	3			

ES1

SITE AREA EMERGENCY

EAL ENTRY CRITERIA

Category F: Fire or Explosion

Initiating Conditions	Entry Criteria	
	Fire within any Safe Shutdown Building.	
FU1 **Fire within a Safe Shutdown Building NOT extinguished within 15 minutes**	Fire CANNOT be extinguished within 15 minutes of the verification of alarm.	Fire CANNOT be extinguished within 15 minutes of the notification received in the Control Room from plant personnel that a fire exists.
1 2 3 4 5 D		

FU1

UNUSUAL EVENT

NOTE

Verification in this context means those actions taken in the Secondary Alarm Station (SAS) to determine that the alarm is NOT spurious. Verification includes the receipt of multiple or independent alarms or confirmation of a single detector by visual inspection of the affected area by a first responder. List of Safe Shutdown Buildings is found in Section 3 "Definitions", sub-step 3.10.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria
FU2 **Explosion affecting a Safe Shutdown Building** **Applicable Modes:** **1 2 3 4 5 D**	Report by plant personnel confirming the occurrence of an explosion within the Protected Area resulting in visible damage to a Safe Shutdown Building.

FU2

UNUSUAL EVENT

NOTE

No attempt is made to assess the magnitude of the damage. The occurrence of the explosion with reports of damage (deformation/scorching) is sufficient for declaration. Actual damage to safe shutdown equipment is covered under Alert FA1. List of Safe Shutdown Buildings is found in Section 3 "Definitions", sub-step 3.10.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		FA1
FA1 **Fire OR explosion affecting the operability of plant safety systems required to establish or maintain safe shutdown** **Applicable Modes:** **1 2 3 4 5 D**	Either of the following has been confirmed: • Fire in a Safe Shutdown Building. • Explosion in a Safe Shutdown Building.		**A L E R T**
	Plant personnel at the scene report visible damage to safe shutdown equipment or components.	Affected safe shutdown system indicates degraded performance.	

NOTE

The inclusion of a "report of visible damage" should NOT be interpreted as mandating a lengthy damage assessment prior to classification. NO attempt is made in this EAL to assess the actual magnitude of damage beyond the immediate area. The occurrence of the explosion or fire with reports of evidence of damage (e.g., deformation, scorching) is sufficient for declaration. List of Safe Shutdown Buildings is found in Section 3 "Definitions", sub-step 3.10.

EAL ENTRY CRITERIA

NOTE

Safe Shutdown System/Equipment refers to equipment identified in the Safe Shutdown Capability Report. This is the minimum list of equipment required to achieve and maintain COLD SHUTDOWN (including all auxiliary equipment such as AC/DC power, cooling water and instrumentation). A detailed list is provided in the <Appendix R Evaluation - Safe Shutdown Capability Report>.

Safe Shutdown System/Equipment list: (Division 1 and 2 only)

Reactor Protection System
Control Rod Drive Hydraulics
Automatic Depressurization System/SRV
Reactor Core Isolation Cooling
Low Pressure Core Spray
Low Pressure Coolant Injection - A/B/C
Suppression Pool Cooling
Shutdown Cooling
Safety-Related Instrument Air
Emergency Service Water
Emergency Service Water Screen Wash
Emergency Service Water Pump House Ventilation
ECCS Pump Room Cooling Systems
Diesel Generator Building Ventilation
Stand-by Diesel Generator (DG)
DG Fuel Oil Storage/Transfer
Electrical Power Distribution
Emergency Closed Cooling Pump Area Cooling
Emergency Closed Cooling
Control Complex Chilled Water
MCC, Switchgear and Miscellaneous Electrical Equipment Areas HVAC System
Battery Room Exhaust
Control Room HVAC and Emergency Recirculation System

(Reference: <NUMARC/NESP-007> (Rev. 2), Unusual Event HA2)

EAL ENTRY CRITERIA

Category G: Increased Plant Radiation Levels

Initiating Conditions	Entry Criteria		
GU1 **Unexpected increase in plant radiation levels** **Applicable Modes:** 1 2 3 4 5 D	Area radiation monitor (D21) reading increases by a factor of 1000 over normal levels.	Health Physics surveys indicate an increase by a factor of 1000 times over normally expected area radiation levels.	**GU1** **UNUSUAL EVENT**
	In-plant radiation level increase CANNOT be attributed to any of the following: • the start-up and operation of plant equipment or systems within design parameters. • the planned movement of radioactive materials. • the planned movement of shielding (i.e., plugs, lead shot, etc.)		

NOTE

"Normal" area radiation levels can be considered as the highest reading in the past 24-hour period, excluding the current peak value.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria
GU2 **Uncontrolled fuel pool water level decrease with irradiated fuel outside the RPV remaining covered.** **Applicable Modes:** **1 2 3 4 5 D**	Uncontrolled decrease in <u>one or more</u> of the following fuel pools containing irradiated fuel: • FHB Fuel Storage and Preparation Pool • FHB Fuel Transfer Pool • FHB Spent Fuel Storage Pool • FHB Cask Pit • CNTMT Fuel Storage Pool • CNTMT Fuel Transfer Pool

GU2

UNUSUAL EVENT

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
GA1 **Increases in radiation levels within Safe Shutdown Buildings that impede operation of systems required to maintain safe operations OR to establish or maintain COLD SHUTDOWN** **Applicable Modes:** **1 2 3 4 5 D**	Area radiation levels of greater than 15 mRem/hr in any of the following areas: • Control Room • Central Alarm Station	Area radiation levels of greater than 6000 mRem/hr in a Safe Shutdown Building, as determined by either: • area radiation surveys • installed or portable radiation monitors	**GA1** **A L E R T**
		Access is required to maintain safe operation or perform a safe shutdown, as determined by the Shift Manager.	

NOTE

This IC addresses increased radiation levels that impede necessary access to operating stations or other areas containing equipment that must be operated manually in order to maintain safe operation or perform a safe shutdown. It is this impaired ability to operate the plant that results in the actual or potential substantial degradation of the level of safety of the plant.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
GA2 **Major damage to irradiated fuel** **Applicable Modes:** **1 2 3 4 5 D**	HIGH alarm on <u>one or more</u> of the following radiation monitors resulting from damage to irradiated fuel: • SPENT FUEL POOL • UPPER POOL • FUEL PREP POOL • FHB VENT GAS • CNTMT ATMOS GAS	Water level observed to be below top of the gate sill separating <u>any</u> of the following containing irradiated fuel: • FHB Fuel Storage and Preparation Pool • FHB Fuel Transfer Pool • FHB Spent Fuel Storage Pool • FHB Cask Pit • CNTMT Fuel Storage Pool • CNTMT Fuel Transfer Pool	**<u>GA2</u> A L E R T**

<u>NOTE</u>

The intent of this EAL is to allow observations from plant personnel to be factored into the declaration decision and is <u>not</u> intended to direct an entry into an area solely to observe pool level. The gate sill is the lip between the pools where the bottom of the gate would sit if installed.

EAL ENTRY CRITERIA

Category H: Increased Radiation Release to the Environment

Initiating Conditions	Entry Criteria		
HU1 **Any unplanned release of gaseous radioactivity to the environment that exceeds two times the ODCM Control limit for 60 minutes or greater.**	Reading greater than TWO times the HIGH alarm setpoint on one or more of the following plant gaseous effluent monitors lasting greater than or equal to 60 minutes: • PLANT VENT GAS 1D17-K786 • OG VENT PIPE GAS 1D17-K836 • TB/HB VENT GAS 1D17-K856 • PLANT VENT GAS 2D17-K786	Routine or as required sample analysis indicates a release rate greater than two times ODCM 3.11.2.1 limits.	**HU1** **UNUSUAL EVENT**
	Chemistry sample analysis methods CANNOT confirm within 60 minutes of receipt of the HIGH alarm, on one or more of the plant gaseous effluent monitors, that effluent levels are less than two times ODCM 3.11.2.1 limits.	The release lasts for greater than or equal to 60 minutes.	
Applicable Modes: **1 2 3 4 5 D**			

NOTE

It is NOT intended that the release be averaged over 60 minutes. Further, the Emergency Coordinator should NOT wait until 60 minutes has elapsed, but should declare the event as soon as it is determined that the release will exceed TWO times the ODCM Control 3.11.2.1 limit for greater than 60 minutes.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
HU2 **Any unplanned release of liquid radioactivity to the environment that exceeds two times the ODCM Control limit for 60 minutes or greater.**	Reading greater than 1.2E3 cpm above background for <u>one or more</u> of the following liquid process monitors lasting greater than or equal to 60 minutes: • EMERGENCY SERVICE WATER LOOP A 1D17-K604 • EMERGENCY SERVICE WATER LOOP B 1D17-K605	Reading greater than 20 times the HIGH-HIGH alarm setpoint on RADWASTE TO ESW monitor OD17-K606.	Routine or as required sample analysis indicates a release rate greater than two times ODCM Control 3.11.1.1 limits.
Applicable Modes: **1 2 3 4 5 D**	Chemistry sample analysis methods <u>CANNOT</u> confirm within 60 minutes of receipt of the HIGH-HIGH alarm, on <u>either</u> ESW Loop A or B radiation monitors, that liquid release levels are less than two times the ODCM Control 3.11.1.1 limits.	Release CANNOT be terminated within 60 minutes of exceeding RADWASTE TO ESW HIGH-HIGH alarm setpoints.	The release lasts for greater than or equal to 60 minutes.

<u>HU2</u>

U N U S U A L E V E N T

<u>NOTE</u>

It is <u>NOT</u> intended that the release be averaged over 60 minutes. Further, the Emergency Coordinator should <u>NOT</u> wait until 60 minutes has elapsed, but should declare the event as soon as it is determined that the release will exceed TWO times the ODCM Control 3.11.1.1 limit for greater than 60 minutes.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria			
HA1 **Any unplanned release of gaseous radioactivity to the environment that exceeds 200 times the ODCM Control limit for 15 minutes or greater** **Applicable Modes:** **1 2 3 4 5 D**	Reading greater than 200 times the HIGH alarm setpoint OR offscale high on <u>one or more</u> of the following plant gaseous effluent monitors:* • PLANT VENT GAS 1D17-K786 • OG VENT PIPE GAS 1D19-K836 • TB/HB VENT GAS 1D17-K856 • PLANT VENT GAS 2D17-K786	Routine or as required sample analysis indicates a release rate greater than 200 times ODCM Control 3.11.2.1 limits.	Portable survey instruments indicate radiation levels of greater than 10 mRem/hr at the Site Boundary for greater than or equal to 15 minutes.	**<u>HA1</u>** **A L E R T**
	Chemistry sample analysis methods <u>CANNOT</u> confirm within 15 minutes of receipt of the HIGH alarm, on <u>one or more</u> of the plant gaseous effluent monitors, that effluent levels are less than 200 times ODCM Control 3.11.2.1 limits.	The release lasts for greater than or equal to 15 minutes.		

<u>NOTE</u>

* These Alert thresholds may exceed the Site Area Emergency thresholds (since the Site Area Emergency thresholds were established using a clad damage source term versus the ODCM [coolant activity] methodology used to determine Alert classification thresholds). Therefore, an emergency dose assessment (CADAP) run using the appropriate source term, determined at the time of event, must be performed within 15 minutes concurrently with ODCM calculations to determine if a Site Area Emergency entry criteria has been met.

It is <u>NOT</u> intended that the release be averaged over 15 minutes. Rather, the Emergency Coordinator should declare the event as soon as it is determined that the release will exceed 200 times the ODCM Control 3.11.2.1 limit for greater than 15 minutes.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria			
HA2 **Any unplanned release of liquid radioactivity to the environment that exceeds 200 times the ODCM Control limit for 15 minutes or greater** **Applicable Modes:** **1 2 3 4 5 D**	Reading greater than 1.2E5 cpm above background for <u>one or more</u> of the following liquid process monitors lasting greater than or equal to 15 minutes: • EMERGENCY SERVICE WATER LOOP A 1D17-K604 • EMERGENCYSERVICE WATER LOOP B 1D17-K605	Reading greater than 2000 times the HIGH-HIGH alarm setpoint on RADWASTE TO ESW monitor OD17-K606.	Routine or as required sample analysis indicates a release rate greater than 200 times ODCM Control 3.11.1.1 limits.	**HA2** **A L E R T**
	Chemistry sample analysis methods <u>CANNOT</u> confirm within 15 minutes of receipt of the HIGH-HIGH alarm, on <u>either</u> ESW Loop A or B radiation monitors, that liquid release levels are less than 200 times ODCM Control 3.11.1.1 limits.	Release <u>CANNOT</u> be terminated within 15 minutes of exceeding RADWASTE TO ESW HIGH-HIGH alarm setpoints.	The release lasts for greater than or equal to 15 minutes.	

<u>NOTE</u>

It is <u>NOT</u> intended that the release be averaged over 15 minutes. Rather, the Emergency Coordinator should declare the event as soon as it is determined that the release will exceed 200 times the ODCM Control 3.11.1.1 limit for greater than 15 minutes.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria			
HS1 **Site Boundary dose resulting from an actual or imminent release of gaseous radioactivity that exceeds 100 mRem TEDE dose OR 500 mRem CDE Child Thyroid dose for the actual or projected duration of the release**	Greater than the listed reading for <u>one or more</u> of the following plant gaseous effluent monitors: • PLANT VENT GAS 1D19-N300 3.8E-1 µCi/cc • OG VENT PIPE GAS 1D19-N400 2.2E0 µCi/cc • TB/HB VENT GAS 1D17-K856 1.6E4 cpm • PLANT VENT GAS 2D19-N300 6.0E-1 µCi/cc	Emergency dose calculations, using actual meteorology indicate that <u>one or more</u> of the following are met at the Site Boundary: • Greater than 100 mRem TEDE • Greater than 500 mRem CDE Child Thyroid	Field survey results indicate that <u>one or more</u> of the following have been met at the Site Boundary: • Greater than 100 mRem/hr Whole Body • Greater than 500 mRem CDE Child Thyroid	**<u>HS1</u>** **SITE AREA EMERGENCY**
	Emergency dose calculations <u>CANNOT</u> confirm, within 15 minutes of exceeding limit, that levels at the Site Boundary are less than 100 mRem TEDE and 500 mRem CDE Child Thyroid dose using actual meteorology.		Dose rates are expected to continue for greater than or equal to 1 hour.	
Applicable Modes: **1 2 3 4 5 D**				

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
HG1 **Site Boundary dose resulting from an actual or imminent release of gaseous radioactivity that exceeds 1000 mRem TEDE dose OR 5000 mRem CDE Child Thyroid dose for the actual or projected duration of the release**	Greater than the reading listed for <u>one or more</u> of the following plant gaseous effluent monitors: • PLANT VENT GAS 1D19-N300 3.8E0 µCi/cc • OG VENT PIPE GAS 1D19-N400 2.2E1 µCi/cc • TB/HB VENT GAS 1D17-K856 1.6E5 cpm • PLANT VENT GAS 2D19-N300 6.0E0 µCi/cc	Emergency dose calculations, using actual meteorology indicate that <u>one or more</u> of the following are met at the Site Boundary: • Greater than 1000 mRem TEDE • Greater than 5000 mRem CDE Child Thyroid	Field survey results indicate that <u>one or more</u> of the following have been met at the Site Boundary: • Greater than 1000 mRem/hr Whole Body • Greater than 5000 mRem CDE Child Thyroid
	Emergency dose calculations <u>CANNOT</u> confirm, within 15 minutes of exceeding above limit, that levels at the Site Boundary are less than 1000 mRem TEDE and 5000 mRem CDE Child Thyroid dose using actual meteorology.		Dose rates are expected to continue for greater than or equal to 1 hour.
Applicable Modes: 1 2 3 4 5 D			

HG1

GENERAL EMERGENCY

<u>NOTE</u>

Exceeding the entry criteria for HG1 may require the initiation of an RPV emergency depressurization per <PEI-D17>. Ensure Shift Manager is notified immediately whenever the above entry criteria for a General Emergency is met.

EAL ENTRY CRITERIA

Category I: Control Room Evacuation

Initiating Conditions	Entry Criteria
IA1 **Control Room evacuation has been initiated** **Applicable Modes:** **1 2 3 4 5 D**	Entry into <ONI-C61>.

IA1

A L E R T

NOTE

An inability to establish plant control from outside the Control Room will escalate this event to a Site Area Emergency per IS1.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria
IS1 **Control Room evacuation has been initiated, AND plant control CANNOT be established within 15 minutes.**	Entry into <ONI-C61>.
	Within 15 minutes of entry into <ONI-C61>, Operator(s) located at the remote shutdown controls CANNOT establish control of one or more of the following parameters per <IOI-11>: • RPV level • RPV pressure • Suppression Pool temperature • Reactor power • Decay heat removal, if required

Applicable Modes:

1	2	3	4	5	D

IS1

SITE AREA EMERGENCY

NOTE

A maximum 15 minute time frame for the physical transfer of control of "required" systems was established by <NUMARC/NESP-007>. Control at the Remote Shutdown Areas is accomplished by the repositioning of control transfer switches per <IOI-11>. Control is assumed unless indication of the absence of control is present.

EAL ENTRY CRITERIA

Category J: Loss of Annunciators or Indication

Initiating Conditions	Entry Criteria	
JU1 **Loss of most annunciators or indication in the Control Room for greater than 15 minutes**	Unplanned loss of most Control Room annunciators for greater than 15 minutes.	Unplanned loss of most Control Room indication for greater than 15 minutes.
	In the Shift Manager's opinion, increased surveillance is warranted to safely operate the plant.	

Applicable Modes:

1	2	3			

JU1

UNUSUAL EVENT

NOTE

Quantification of "most" is left to the Shift Manager. It is NOT intended that plant personnel perform a detailed count of the instrumentation lost, but rather make a judgment call with approximately 75% being the threshold.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		JA1
JA1 **Loss of most annunciators or indication in the Control Room with <u>either</u>: (1) a significant transient in progress, OR (2) compensatory indicators are <u>NOT</u> available.** **Applicable Modes:** 1 2 3	Unplanned loss of most Control Room annunciators for greater than 15 minutes.	Unplanned loss of most Control Room indication for greater than 15 minutes.	**A L E R T**
	In the Shift Manager's opinion, increased surveillance is warranted to safely operate the plant.		
	A significant plant transient is in progress.	Compensatory indications i.e., ERIS and process computer, are <u>NOT</u> available.	

<u>NOTE</u>

Quantification of "most" is left to the Shift Manager. It is <u>NOT</u> intended that plant personnel perform a detailed count of the instrumentation lost, but rather make a judgment call with approximately 75% being the threshold.

A "significant transient" includes response to automatic OR manually initiated functions such as scrams, runbacks involving greater than 25% thermal power change, ECCS injection, or thermal power oscillations of 10% or greater.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		JS1
JS1 **Inability to monitor a significant transient in progress** **Applicable Modes:** 1 2 3	Loss of most Control Room annunciators.	Loss of most Control Room indication.	SITE AREA EMERGENCY
	Compensatory indicators, i.e., ERIS and process computer, are NOT available.		
	A significant transient is in progress.		
	Sufficient indication is NOT available to directly monitor plant critical safety parameters for PEIs entered due to the transient.		

EAL ENTRY CRITERIA

(INTENTIONALLY BLANK)

EAL ENTRY CRITERIA

Category K: Loss of Communications

Initiating Conditions	Entry Criteria
KU1 **Loss of onsite OR in-plant communications capabilities**	Loss of all five Plant Public Address System channels.
	Loss of all of the following Plant Radio System channels: • Channel 1 • Channel 2 • Channel 3

Applicable Modes:

1	2	3	4	5	D

KU1

UNUSUAL EVENT

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria
KU2 **Significant degradation of offsite communications capabilities**	Loss of the State and County Notification Circuit (5-way) reported to the Control Room.
	Loss of offsite long distance calling capability on all of the following systems circuits for greater than 15 minutes: • Control Room private (259-) lines • Private Branch Exchange, Service Building ("5000") Switch • Private Branch Exchange, Warehouse Building ("6000") Switch • Company Off-Premise Exchange

Applicable Modes:

1	2	3	4	5	D

KU2

UNUSUAL EVENT

NOTE

This EAL is intended to be used only when extraordinary means are being utilized to make communications possible. The radio link between the SAS/CAS and the Lake County Sheriff's Department, and use of cellular phones are considered extraordinary means and can be utilized outside the Control Room to provide notification capability upon the loss of dedicated and normal plant telephone lines.

A loss of the "5 Way" Circuit refers to the inability to contact one or more of the four offsite contacts: the State of Ohio, and the counties of Ashtabula, Geauga, and Lake.

EAL ENTRY CRITERIA

Category L: Natural or Destructive Phenomena
<P00067>

<table>
<tr><th>Initiating Conditions</th><th colspan="6">Entry Criteria</th><th>LU1</th></tr>
<tr><td rowspan="2">LU1

Natural OR destructive phenomena affecting the Protected Area boundary

Applicable Modes:
<table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>D</td></tr></table></td><td colspan="2">Control Room receives report from plant personnel who felt an earthquake.</td><td rowspan="2">Report by plant personnel confirming <u>either</u> of the following within the Protected Area boundary:
• tornado strike
• plane or train crash</td><td rowspan="2">High sustained winds greater than 70 mph for equal to or greater than 15 minutes.</td><td colspan="2">Indications in the Control Room of a Main Turbine Trip or failure</td><td rowspan="2">U
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<tr><td>WHITE event indicator light on local Seismic Monitoring Panel 0H51-P021.</td><td>AMBER light(s) on Seismic Monitoring Panel 0H13-P969.</td><td>Turbine casing penetration.</td><td>Catastrophic damage to generator seals.</td></tr>
</table>

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria					
LA1 **Natural OR destructive phenomena affecting Safe Shutdown Buildings** **Applicable Modes:** 1 2 3 4 5 D	Control Room receives report from plant personnel who felt an earthquake. Either of the following indications present: • YELLOW seismic switch indicator light on local Seismic Monitoring Panel OH51-P021. • RED light on Seismic Monitoring Panel OH13-P969.	Report of visible damage to any Safe Shutdown Building caused by any of the following: • tornado • aircraft, barge or train crash • other natural or destructive phenomena	Sustained high winds with a velocity greater than 90 mph for 15 minutes or longer.	Greater than <PEI-N11> Maximum Safe Operating Value for Area Water Level (internal flooding)	Report by plant personnel confirming a turbine failure which results in penetration of the turbine casing. Missile generated from the turbine failure resulting in either: • damage to Safe Shutdown equipment. • penetration of a Safe Shutdown Bldg.	**LA1** **ALERT**

EAL ENTRY CRITERIA

Category M: Release of Toxic or Flammable Gases

Initiating Conditions	Entry Criteria		
MU1 **Release of toxic OR flammable gases affecting the Protected Area boundary deemed detrimental to the safe operation of the plant**	Report or detection of potentially toxic or flammable gases from an offsite source that could enter the Site's Owner Controlled Area.	Report by local, county, or State officials for a potential evacuation of site personnel based on an offsite event.	**MU1** **U N U S U A L** **E V E N T**
	Normal operation of the plant is impeded due to access restrictions implemented by Control Room within the Protected Area.		
Applicable Modes:			
1 2 3 4 5 D			

NOTE

A gas release is considered to be impeding normal operations if it is of sufficient magnitude that access to areas required to support continued plant power operation is prohibited or is possible only through the use of protective equipment, such as respirators.

MU1 is based on releases, in concentrations within the Protected Area, that will affect the health of plant personnel or affecting the safe operation of the plant with the plant being within the evacuation area of an offsite event, (i.e. tanker truck accident releasing potentially toxic gases, etc.).

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
MA1 **Release of toxic OR flammable gases within a Safe Shutdown Building which jeopardizes operation of systems required to maintain safe operations OR to establish or maintain COLD SHUTDOWN** **Applicable Modes:** **1 2 3 4 5 D**	Entry of toxic or flammable gases into Safe Shutdown Buildings or Areas.		
	Toxic gas in concentrations considered life-threatening	Flammable gas estimated or determined to be in explosive concentrations	Plant personnel NOT able to perform actions necessary to establish and maintain Mode 4 while utilizing appropriate protective equipment.

MA1

A L E R T

NOTE

This IC addresses increased toxic or flammable gas levels that impede necessary access to operating stations or other areas containing equipment that must be operated manually in order to maintain safe operation or perform a safe shutdown. It is this impaired ability to operate the plant that results in the actual or potential substantial degradation of the level of safety of the plant.

EAL ENTRY CRITERIA

Category N: Security Events

Initiating Conditions	Entry Criteria	
NU1 **Confirmed security event which indicates to potential degradation in the level of safety of the plant** **Applicable Modes:** **1 2 3 4 5 D**	Bomb device discovered within Protected Area.	Any security event resulting in the declaration of a SECURITY ALERT in accordance with the <PNPP Physical Security Plan>.

NU1

UNUSUAL EVENT

NOTE

A bomb device discovered in a plant Vital Area is classified under NS1 as a Site Area Emergency.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
NA1 **Security event in the plant Protected Area** **Applicable Modes:** **1 2 3 4 5 D**	Intrusion into Protected Area by hostile force.	Any security event resulting in a declaration of a SECURITY EMERGENCY in accordance with the <PNPP Physical Security Plan>.	**NA1** **A L E R T**

NOTE

An individual or group of individuals with known or suspected malicious intent, which penetrates the Protected Area boundary, can be considered a hostile force.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
NS1 **Security event in a plant Vital Area** **Applicable Modes:** 1 2 3 4 5 D	Intrusion into a plant Vital Area by a hostile force.	Explosive device discovered in a plant Vital Area.	Confirmed act of sabotage within a plant Vital Area.

NS1

SITE AREA EMERGENCY

NOTE

An individual or group of individuals with known or suspected malicious intent, which penetrates the Protected Area boundary, can be considered a hostile force. However, this hostile force must occupy or gain control of a vital area to meet the criteria for the declaration of a Site Area Emergency.

If there is conclusive evidence that a vital area has been entered by a hostile force, even though he is no longer present, the intrusion had been made and a Site Area Emergency is therefore warranted.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria	
NG1 **Security event resulting in loss of ability to reach and maintain COLD SHUTDOWN** **Applicable Modes:** **1 2 3 4 5 D**	Loss of physical control of the Control Room due to a hostile force or act.	Loss of physical control of the Division 1 and 2 Remote Shutdown Areas due to a hostile force or act.

NG1

GENERAL EMERGENCY

NOTE

An individual or group of individuals with known or suspected malicious intent, which penetrates the Protected Area boundary, is considered a hostile force. This hostile force must occupy or gain control of either the Control Room or Division 1 and 2 Remote Shutdown Areas to meet the criteria for the declaration of a General Emergency.

EAL ENTRY CRITERIA

Category O: Emergency Coordinator's Judgment

Initiating Conditions	Entry Criteria
OU1 **Other conditions existing, which in the judgment of the Emergency Coordinator, warrant declaration of an Unusual Event** **Applicable Modes:** **1 2 3 4 5 D**	Events are in process or have occurred which indicate a potential degradation of the level of safety of the plant.

OU1

UNUSUAL EVENT

NOTE

For those cases where the degradation in the level of safety of the plant is tied to equipment or system malfunctions, the decision that the component is degraded should be based upon its functionality and NOT its operability.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria
OA1 **Other conditions existing, which in the judgment of the Emergency Coordinator, warrant declaration of an Alert** **Applicable Modes:** **1 2 3 4 5 D**	Events are in progress or have occurred which indicate an actual or potential degradation of systems needed for the protection of the public and which warrant increased monitoring of plant functions.

OA1

A L E R T

NOTE

This IC is intended to address unanticipated conditions NOT addressed explicitly elsewhere but that warrant declaration of an emergency because conditions exist which are believed by the Emergency Coordinator to fall under the Alert emergency class. This includes a determination by the Emergency Coordinator that additional assistance similar to that provided by the TSC and OSC staffs, including a transfer of the Emergency Coordinator responsibilities to the TSC, is necessary for the event to be effectively mitigated. Transfer of Emergency Coordinator duties for classification, offsite notifications and PAR decisions, is used as an initiator since an event significant enough to warrant transfer of command and control is a substantial reduction in the level of safety of the plant.

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria
OS1 **Other conditions existing, which in the judgment of the Emergency Coordinator, warrant declaration of a Site Area Emergency** **Applicable Modes:** 1 2 3 4 5 D	Other conditions exist which indicate an actual or likely major failure of plant functions needed for protection of the public.

OS1

SITE AREA EMERGENCY

EAL ENTRY CRITERIA

Initiating Conditions	Entry Criteria		
OG1 **Other conditions existing, which in the judgment of the Emergency Coordinator, warrant declaration of a General Emergency** **Applicable Modes:** 1 2 3 4 5 D	Other conditions exist which indicate an actual or imminent substantial core degradation with the potential loss of Containment integrity.	Potential for an uncontrolled release which can reasonably be expected to be greater than 1 Rem TEDE at the Site Boundary.	Potential for an uncontrolled release which can reasonably be expected to be greater than 5 Rem CDE Child Thyroid at the Site Boundary.

OG1

GENERAL EMERGENCY