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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: Peach Bottom Atomic Power Station, Units 2 & 3
Emergency Response Procedure Revisions

Reference: Letter from J. A. Hutton (Exelon) to USNRC dated June 8, 2001

Dear Sir/Madam:

Enclosed is the following procedure revision to the Emergency Response Procedures (ERPs) for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3.

- ERP-101, Revision 22, "Classification of Emergencies"

The reference letter inadvertently submitted ERP-101, Revision 23. ERP-101, Revision 23, requires additional approvals prior to implementation, and therefore, should not have been submitted as an approved revision. Therefore, we are resubmitting ERP-101, Revision 22, since it is the current revision in effect.

Also, enclosed is a copy of a computer generated report index identifying the latest revisions of the PBAPS ERPs.

If you have any questions or require additional information, please do not hesitate to contact us.

Very truly yours,



James A. Hutton
Director - Licensing
Mid-Atlantic Regional Operating Group

Attachments

cc: H. J. Miller, Administrator, Region I, USNRC (2 copies)
A. C. McMurtry, USNRC Senior Resident Inspector, PBAPS

A045

ATTACHMENT 1

PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 & 3

**Docket Nos. 50-277
50-278**

**License Nos. DPR-44
DPR-56**

EMERGENCY RESPONSE PROCEDURES

**ERP-101, "Classification of Emergencies"
Revision 22**

Effective Date: 8/1/00

ERP-101, Rev. 22
Page 1 of 32
RDM/rdm

**PECO NUCLEAR
PEACH BOTTOM UNITS 2 AND 3
EMERGENCY RESPONSE PROCEDURE**

(This is a complete rewrite)

ERP-101 CLASSIFICATION OF EMERGENCIES

1.0 RESPONSIBILITIES

1.1 Shift Management:

- 1.1.1 Recognize and classify an event or condition.
- 1.1.2 Assume duties of Emergency Director (ED).

1.2 Plant Manager or designated alternate:

- 1.2.1 Relieve acting ED.
- 1.2.2 Assume duties of ED.

2.0 INITIAL ACTIONS

NOTE THE JUDGMENT OF THE EMERGENCY DIRECTOR TAKES PRECEDENCE OVER GUIDANCE IN THE PROCEDURE.
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NOTE IDENTIFICATION AND CLASSIFICATION OF EMERGENCIES SHOULD BE ACCOMPLISHED WITHIN 15 MINUTES AFTER THE APPLICABLE EMERGENCY ACTION LEVELS (EALs) ARE MET.

2.1 Emergency Director shall:

- 2.1.1 Select categories appropriate for station events or conditions.
- 2.1.2 Review Emergency Action Level (EALs) for categories selected.
- 2.1.3 IF the event trigger is known to be spurious, THEN do not classify the event (i.e., false high reading, false radiation monitor readings, etc.)
- 2.1.4 Classify the event based on selected categories and most severe EALs.
- 2.1.5 IF the event or condition classifies as an emergency, THEN assume duties of ED and implement ERP-200.

3.0 CONTINUING ACTIONS

NOTE

IT IS PREFERABLE TO OBTAIN EMERGENCY RESPONSE MANAGER (ERM)
CONCURRENCE PRIOR TO DE-ESCALATION.

- 3.1 IF emergency conditions dictate,
THEN escalate or de-escalate emergency classification.

4.0 FINAL CONDITIONS

- 4.1 Emergency conditions have been terminated, or ERP-C-1900, Recovery Phase Implementation has been implemented.

5.0 ATTACHMENTS AND APPENDICES

- 5.1 Attachment 1 - EAL Table of Contents and Tables 1 through 9. **CM-1, CM-2, CM-3, CM-5**
- 5.2 Attachment 2 - Terms and Definitions

6.0 SUPPORTING INFORMATION

6.1 Purpose

- 6.1.1 To provide the method for classifying an event or condition into one of four (4) emergency classifications described in the Nuclear Emergency Plan.
- 6.1.2 To provide pre-determined Protective Action Recommendations (PARs) for specific plant conditions whenever a General Emergency is declared.

6.2 Criteria For Use

- 6.2.1 Implement whenever conditions meet or exceed EALs listed in the Tables.

NOTE

ISSUANCE OF A PAR REQUIRES A GENERAL EMERGENCY CLASSIFICATION
AND CONVERSELY A GENERAL EMERGENCY CLASSIFICATION REQUIRES THE
ISSUANCE OF A PAR.

- 6.2.2 PAR information in the tables, is expected to be used when an event rapidly progresses to a General Emergency or when the PAR is based only on plant conditions. Dose Assessment based PAR information may be obtained from the Dose Assessment Coordinator or the Dose Assessment Team Leader. In either case, the most conservative PAR available is to be used.

- 6.2.3 Whenever the Emergency Operations Facility (EOF) is activated, then all PAR information from the ED should be submitted to the ERM.
CM-4

6.3 Special Equipment

None

6.4 References

- 6.4.1 EPA-400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents
- 6.4.2 ERP-200, Emergency Director (ED)
- 6.4.3 ERP-C-1900, Recovery Phase Implementation
- 6.4.4 Nuclear Emergency Plan
- 6.4.5 NUMARC/NESP-007, Methodology for Development of Emergency Action Levels
- 6.4.6 NUREG 0654, FEMA-REP-1, Criteria for Preparations and Evaluation of Radiological Emergency Response Plans in Support of Nuclear Power Plants
- 6.4.7 PBAPS Technical Specifications
- 6.4.8 PBAPS Offsite Dose Calculation Manual
- 6.4.9 PBAPS Updated Final Safety Analysis Report
- 6.4.10 Reference Manual: Identification and Evaluation of Potentially Reportable Items
- 6.4.11 SE-1, Plant Shutdown from the Remote Shutdown Panel
- 6.4.12 SE-5, Earthquake
- 6.4.13 SE-10, Plant Shutdown from the Alternative Shutdown Panels
- 6.4.14 T-101, Reactor Pressure Vessel Control
- 6.4.15 T-102, Primary Containment Control
- 6.4.16 T-103, Secondary Containment Control
- 6.4.17 T-104, Radioactivity Release Control
- 6.4.18 T-116, RPV Flooding

- 6.4.19 T-200, Primary Containment Venting
- 6.4.20 SO 67.7A, Verification of Suspected Earthquake or Seismic System Activation
- 6.4.21 US NRC Regulatory Guide 1.101, Emergency Planning and Preparedness for Nuclear Power Reactors
- 6.4.22 US NRC Response Technical Manual

6.5 Commitment Annotation

- 6.5.1 CM-1, NRC Inspection Report 50-277, 278/ 88-12/12 (T00349), (see Attachment 1, tables 1 through 9)
- 6.5.2 CM-2, Event INV Report 3-90-031, corrective action #7, (T00826), (see Attachment 1, table 1 for Reactor Fuel and table 3 for Fission Product Barrier)
- 6.5.3 CM-3, NRC URI 85-17-03, IN Inspection Report 86-06/06, (T01934), (see Attachment 1, table 9)
- 6.5.4 CM-4, Peach Bottom Inspection Report 92-19/19 (T02540), (see section 6.2.3)
- 6.5.5 CM-5, NRC Inspection 92-03/03, (T02541), (see Attachment 1, table 3 for Fission Product Barrier)

**Attachment 1
EAL Table of Contents**

1.0 Reactor Fuel
1.1 Coolant Activity6
1.2 Irradiated Fuel or New Fuel7

2.0 Reactor Pressure Vessel
2.1 Reactor Water Level.....8
2.2 Reactor Power.....9

3.0 Fission Product Barrier **CM-2, CM-5**
3.1 Initiating Condition Matrix.....10
3.2 Fission Product Barrier Table11

4.0 Secondary Containment Bypass
4.1 Main Steam Line.....13

5.0 Radioactivity Release
5.1 Effluent Release and Dose.....14
5.2 In-Plant Radiation16

6.0 Loss of Power
6.1 Loss of AC or DC Power.....17

7.0 Internal Events
7.1 Technical Specifications & Control Room Evacuation19
7.2 Loss of Decay Heat Removal Capability.....20
7.3 Loss of Assessment/Communications Capability.....21

8.0 External Events
8.1 Security Events.....23
8.2 Fire/Explosion and Toxic/Flammable Gases.....24
8.3 Man-Made Events.....26
8.4 Natural Events27

9.0 Other **CM-3**
9.1 General.....29

MODE

1	Run
2	Startup
3	Shutdown (hot)
4	Shutdown (cold)
5	Refueling
D	Defueled

1.0 Reactor Fuel

1.1 Coolant Activity

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<p>IC Fuel Clad Degradation</p> <p>1.1.1.a Applicable Modes: ALL Reactor Coolant activity > $4 \mu\text{Ci/gm}$ Dose Equivalent Iodine 131</p> <p>1.1.1.b Applicable Modes: 1, 2, 3 SJAE Discharge Radiation > $2.5 \times 10^3 \text{ mR/hr}$</p>
ALERT	None
SITE AREA EMERGENCY	None
GENERAL EMERGENCY	None

1.0 Reactor Fuel

1.2 Irradiated Fuel or New Fuel

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<p>IC Unexpected Rise in Plant Radiation or Airborne Concentration.</p> <p>1.2.1.a Applicable Modes: ALL Uncontrolled water level drop in the spent fuel pool with all irradiated fuel assemblies remaining covered by water</p> <p>1.2.1.b Applicable Modes: ALL Unexpected Skimmer Surge Tank low level alarm AND Visual observation of an uncontrolled water level drop below the fuel pool skimmer surge tank inlet</p>
	<p>IC Unexpected Rise in Plant Radiation</p> <p>1.2.1.c Applicable Modes: ALL Radiological readings exceed 600 mR/hr one foot away OR 1200 mR/hr at the external surface of any dry storage system</p>
ALERT	<p>IC Major Damage to Irradiated Fuel, or Loss of Water Level that Has or Will Result in the Uncovering of Irradiated Fuel Outside the Reactor Vessel</p> <p>1.2.2.a Applicable Modes: ALL Unplanned general area radiation > 500 mR/hr on the refuel floor (Table 1-1)</p> <p>1.2.2.b Applicable Modes: ALL Report of visual observation of irradiated fuel uncovered</p> <p>1.2.2.c Applicable Modes: 5 (With Reactor Refueling Cavity Flooded) Water Level < 458" above RPV instrument zero for the Reactor Refueling Cavity that will result in Irradiated Fuel uncovering</p> <p>1.2.2.d Applicable Modes: ALL Water Level < 232ft 3 inches plant elevation for the Spent Fuel Pool that will result in Irradiated Fuel uncovering</p>
SITE AREA EMERGENCY	<i>None</i>
GENERAL EMERGENCY	<i>None</i>

Table 1-1 Refuel Floor ARMs

3-7 (7-9)	Steam Separator Pool
3-8 (7-10)	Refuel Slot
3-9(7-11)	Fuel Pool
3-10(7-12)	Refueling Bridge

2.0 Reactor Pressure Vessel

2.1 Reactor Water Level

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<p>IC Reactor Coolant System Leakage</p> <p>2.1.1 Applicable Modes: 1, 2, 3, 4</p> <p>The following conditions exist:</p> <p style="padding-left: 40px;">Unidentified Primary System Leakage > 10 gpm into the Drywell</p> <p style="text-align: center;"><u>OR</u></p> <p style="padding-left: 40px;">Identified Primary System Leakage > 25 gpm into the Drywell</p>
ALERT	<i>None</i>
SITE AREA EMERGENCY	<p>IC Loss of Water Level in the Reactor Vessel That Has or Will Uncover fuel in the Reactor Vessel</p> <p>2.1.3 Applicable Modes: 4, 5</p> <p>RPV level < -172 "</p>
GENERAL EMERGENCY	<i>None</i>

2.0 Reactor Pressure Vessel

2.2 Reactor Power

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<i>None</i>
ALERT	<p>IC Failure of Reactor Protection System Instrumentation to Complete or Initiate an Automatic Reactor Scram Once a Reactor Protection System Setpoint Has Been Exceeded and Manual Scram Was Successful</p> <p>2.2.2 Applicable Modes: 1, 2 Automatic RPS SCRAM should occur due to RPS Setpoint being exceeded <u>AND</u> Failure of Automatic RPS SCRAM to make Reactor shutdown</p>
SITE AREA EMERGENCY	<p>IC Failure of Reactor Protection System Instrumentation to Complete or Initiate an Automatic Reactor Scram Once a Reactor Protection System Setpoint Has Been Exceeded and Manual Scram Was NOT Successful</p> <p>2.2.3 Applicable Modes: 1, 2 RPS SCRAM should occur due to RPS Setpoint being exceeded <u>AND</u> Failure of Automatic RPS, ARI <u>AND</u> Manual SCRAM to reduce reactor power < 4%</p>
GENERAL EMERGENCY	<p>IC Failure of the Reactor Protection System to Complete an Automatic Scram and Manual Scram was NOT Successful and There is Indication of an Extreme Challenge to the Ability to Cool the Core</p> <p>2.2.4 Applicable Modes: 1, 2 RPS SCRAM should occur due to RPS Setpoint being exceeded <u>AND</u> Failure of Automatic RPS, ARI <u>AND</u> Manual SCRAM to reduce reactor power < 4% <u>AND</u> Torus Temperature is on the "UNSAFE" side of the Heat Capacity Temperature Limit (HCTL) curve (T-102, T/T-1) <u>OR</u> RPV level <-200 "</p> <p style="text-align: center;">***PAR***</p> <p>Evacuate 2 mile radius, evacuate affected sector(s) plus 1 sector on each side of affected sector(s) for 2-5 miles.</p>

3.0 Fission Product Barrier Table

3.1 Initiating Condition Matrix

USE TABLE 3.2, "FISSION PRODUCT BARRIER STATUS TABLE" FOR CLASSIFYING EVENT

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	3.1.1 Applicable Modes: 1, 2, 3 ANY Loss <u>OR</u> ANY Potential Loss of Primary Containment
ALERT	3.1.2 Applicable Modes: 1, 2, 3 ANY Loss <u>OR</u> ANY Potential Loss of EITHER Fuel Clad <u>OR</u> RCS
SITE AREA EMERGENCY	3.1.3 Applicable Modes: 1, 2, 3 Loss of BOTH Fuel Clad <u>AND</u> RCS <u>OR</u> Potential Loss of BOTH Fuel Clad <u>AND</u> RCS <u>OR</u> Potential Loss of EITHER Fuel Clad <u>OR</u> RCS, <u>AND</u> Loss of ANY Additional Barrier
GENERAL EMERGENCY	3.1.4 Applicable Modes: 1, 2, 3 Loss of ANY Two Barriers <u>AND</u> Potential Loss of Third Barrier ***PAR*** Evacuate 2 mile radius, evacuate affected sector(s) plus 1 sector on each side of affected sector(s) for 2-5 miles. (See Fission Product Barrier Table 3.2 for exception based on extremely Hi Containment Radiation Levels.)

NOTES:

1. If a "Loss" condition is satisfied, the "Potential Loss" category can be considered satisfied. This is accounted for in the matrix contained in the Fission Product Barrier Table 3.2 used to determine the proper classification based on Fission Product Barrier status.
2. For all conditions listed in Fission Product Barrier Table 3.2, the barrier failure column is only satisfied if it fails when called upon to mitigate an accident. For example, failure of both containment isolation valves to isolate with a downstream pathway to the environment is only a concern during an accident. If this condition exists during normal power operations, it will be an active Technical Specification Action Statement. However, during accident conditions, this will represent a breach of containment.

3.2 Fission Product Barrier Status Table
Applicable Modes: 1, 2, 3

Parameter	Fuel Clad		Reactor Coolant System		Primary Containment	
	Loss	Potential Loss	Loss	Potential Loss	Loss	Potential Loss
Reactor Coolant Activity	Reactor Coolant activity > 300 $\mu\text{Ci/gm}$ Dose Equivalent Iodine 131	N/A	N/A	N/A	N/A	N/A
RPV Level	RPV level < -200 "	RPV level < -172 "	RPV level < -172 "	N/A	N/A	RPV level cannot be restored above -200 " within the time limit of the "SAFE" region of the Maximum Core Uncovery Time Limit Curve (T-116, RF-1)
RPV Level Unknown	N/A	N/A	N/A	RPV level cannot be determined	N/A	RPV level cannot be determined AND RPV Flooding cannot be established as indicated by inability to maintain 5 ADS/SRVs open with RPV pressure at least 60 psig above Torus pressure per T-116
RCS Leak Rate	N/A	N/A	N/A	RCS leakage > 50 gpm	N/A	N/A
Drywell Pressure	N/A	N/A	Drywell Pressure > 2.0 psig AND Indication of a leak inside drywell	N/A	Rapid, unexplained drop in Drywell Pressure following initial rise OR Drywell pressure response not consistent with LOCA conditions	Drywell Pressure > 49 psig and rising OR Drywell Hydrogen > 6% AND Drywell Oxygen > 5%
Drywell Radiation	Drywell Rad Monitor reading > 8×10^4 R/hr	N/A	Drywell Rad Monitor reading > 15 R/hr	N/A	N/A	Drywell Rad Monitor reading > 6×10^5 R/hr ***PAR*** Evacuate 5 mile radius, evacuate affected sector(s) plus 1 sector on each side of affected sector(s) for 5-10 miles.

3.2 Fission Product Barrier Status Table
Applicable Modes: 1, 2, 3

Parameter	Fuel Clad		Reactor Coolant System		Primary Containment	
	Loss	Potential Loss	Loss	Potential Loss	Loss	Potential Loss
Containment Isolation	N/A	N/A	N/A	Unisolable primary system leakage outside drywell as indicated by T-103, Temperature Action Level is exceeded in ONE area requiring a SCRAM OR Unisolable primary system leakage outside drywell as indicated by T-103, Radiation Action Level is exceeded in ONE area requiring a SCRAM	Failure of both valves in any one line to close AND downstream pathway to the environment exists OR Intentional venting per T-200 is required OR Unisolable primary system leakage outside drywell as indicated by T-103, Temperature Action Level is exceeded in ONE area requiring a SCRAM OR Unisolable primary system leakage outside drywell as indicated by a T-103, Radiation Action Level is exceeded in ONE area requiring a SCRAM	N/A
Emergency Director Judgment	Any condition in the judgment of the Emergency Director that indicates Loss or Potential Loss of the FUEL CLAD barrier		Any condition in the judgment of the Emergency Director that indicates Loss or Potential Loss of the RCS barrier		Any condition in the judgment of the Emergency Director that indicates Loss or Potential Loss of the Primary Containment barrier	

In the table below, circle all of the appropriate X's in each applicable row for each Loss or Potential Loss of Fission Product Barrier as determined by the table above.

Classify the event as identified in the table heading if all X's in a column under that heading are circled.

Fission Product Barrier Status	Unusual Event	ALERT				SITE AREA EMERGENCY						GENERAL EMERGENCY					
Fuel Clad - Loss			X			X		X		X				X	X		X
Fuel Clad - Potential Loss				X			X		X		X					X	
Reactor Coolant System - Loss					X	X			X			X		X	X	X	
Reactor Coolant System-Potential Loss						X	X						X				X
Primary Containment - Loss	X									X	X	X	X	X		X	X
Primary Containment - Potential Loss		X													X		

****PAR****
Evacuate 2 mile radius, evacuate affected sector(s) plus 1 sector on each side of affected sector(s) for 2-5 miles. (Upgrade PAR for D/W Rad > 6x10⁵ R/hr)

4.0 Secondary Containment Bypass

4.1 Main Steam Line

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<p>IC Fuel Clad Degradation</p> <p>4.1.1 Applicable Modes: 1, 2, 3 Main Steam Line HiHi Radiation (10xNFPB)</p>
ALERT	<p>IC RCS Leak Rate</p> <p>4.1.2 Applicable Modes: 1, 2, 3</p> <p>Indication of a Main Steam Line Break: Hi Steam Flow Annunciator <u>AND</u> Hi Steam Tunnel Temperature Annunciator <u>OR</u> Direct report of steam release</p>
SITE AREA EMERGENCY	None
GENERAL EMERGENCY	None

5.0 Radioactivity Release

5.1 Effluent Release and Dose

CLASSIFICATION	EMERGENCY ACTION LEVEL
<p>UNUSUAL EVENT</p>	<p>IC Any Unplanned Release of Gaseous or Liquid Radioactivity to the Environment that Exceeds Two Times the Radiological Technical Specifications for 60 Minutes or Longer</p> <p>5.1.1.a Applicable Modes: ALL</p> <p>A valid reading on one or more of the following radiation monitors that exceeds TWO TIMES the HiHi alarm setpoint value for > 60 minutes: Main Stack, Vent Stack, Radwaste Discharge, Service Water Discharge <u>AND</u> Calculated maximum offsite dose rate using computer dose model exceeds 0.114 mRem/hr TPARD OR 0.342 mRem/hr child thyroid CDE based on a 60 minute average Note: If the required dose projections cannot be completed within the 60 minute period, then the declaration must be made based on the valid sustained monitor reading.</p> <p>5.1.1.b Applicable Modes: ALL</p> <p>Confirmed sample analyses for gaseous or liquid releases indicates concentrations or release rates exceeding TWO TIMES Tech Specs (Liquid Release ODCM 3.8.B.1 and Gaseous Release ODCM 3.8.C.1.b) for > 60 minutes</p>
<p>ALERT</p>	<p>IC Any Unplanned Release of Gaseous or Liquid Radioactivity to the Environment that Exceeds 200 Times Radiological Technical Specifications for 15 Minutes or Longer</p> <p>5.1.2.a Applicable Modes: ALL</p> <p>A valid reading on one or more of the following radiation monitors that exceeds TWO HUNDRED TIMES the HiHi alarm setpoint value for > 15 minutes: Main Stack, Vent Stack, Radwaste Discharge, Service Water Discharge <u>AND</u> Calculated maximum offsite dose rate exceeds 11.4 mRem/hr TPARD OR 34.2 mRem/hr child thyroid CDE based on a 15 minute average Note: If the required dose projections cannot be completed within the 15 minute period, then the declaration must be made based on the valid sustained monitor reading.</p> <p>5.1.2.b Applicable Modes: ALL</p> <p>Confirmed sample analyses for gaseous or liquid releases indicates concentrations or release rates exceeding TWO HUNDRED TIMES Tech Specs (Liquid Release ODCM 3.8.B.1 and Gaseous Release ODCM 3.8.C.1.b) for > 15 minutes</p>

<p>SITE AREA EMERGENCY</p>	<p>IC Boundary Dose Resulting from an Actual or Imminent Release of Gaseous Radioactivity Exceeds 100 mR Whole Body or 500 mR Child Thyroid for the Actual or Projected Duration of the Release</p> <p>5.1.3 Applicable Modes: ALL</p> <p>A valid reading on one or more of the following radiation monitors that exceeds or is expected to exceed the value shown for > 15 minutes AND Dose Projections are not available:</p> <table border="0"> <tr> <td>Main Stack</td> <td>5.84 $\mu\text{Ci/cc}$</td> <td>Vent Stack</td> <td>2.08E-3 $\mu\text{Ci/cc}$</td> </tr> <tr> <td>Torus Vent</td> <td>203 cpm</td> <td></td> <td></td> </tr> </table> <p>Note: If the required dose projections cannot be completed within the 15 minute period, then the declaration must be made based on the valid sustained monitor reading.</p> <p>OR Projected offsite dose using computer dose model exceeds 100 mRem TPARD OR 500 mRem child thyroid CDE</p> <p>OR Analysis of Field Survey results indicate site boundary whole body dose rate exceeds 100 mRem/hr expected to continue for more than one hour, OR Analysis of Field Survey results indicate child thyroid dose commitment of 500 mRem for one hour of inhalation</p>	Main Stack	5.84 $\mu\text{Ci/cc}$	Vent Stack	2.08E-3 $\mu\text{Ci/cc}$	Torus Vent	203 cpm		
Main Stack	5.84 $\mu\text{Ci/cc}$	Vent Stack	2.08E-3 $\mu\text{Ci/cc}$						
Torus Vent	203 cpm								
<p>GENERAL EMERGENCY</p>	<p>IC Boundary Dose Resulting from an Actual or Imminent Release of Gaseous Radioactivity that Exceeds 1000 mR Whole Body or 5000 mR Child Thyroid for the Actual or Projected Duration of the Release Using Actual Meteorology</p> <p>5.1.4 Applicable Modes: ALL</p> <p>A valid reading on one or more of the following radiation monitors that exceeds or is expected to exceed the value shown for > 15 minutes AND Dose Projections are not available:</p> <table border="0"> <tr> <td>Main Stack</td> <td>58.4 $\mu\text{Ci/cc}$</td> <td>Vent Stack</td> <td>2.08E-2 $\mu\text{Ci/cc}$</td> </tr> <tr> <td>Torus Vent</td> <td>2000 cpm</td> <td></td> <td></td> </tr> </table> <p>Note: If the required dose projections cannot be completed within the 15 minute period, then the declaration must be made based on the valid sustained monitor reading.</p> <p>OR Projected offsite dose using computer dose model exceeds 1000 mRem TPARD OR 5000 mRem child thyroid CDE</p> <p>OR Analysis of Field Survey results indicate site boundary whole body dose rate exceeds 1000 mRem/hr expected to continue for more than one hour, OR Analysis of Field Survey results indicate child thyroid dose commitment of 5000 mRem for one hour of inhalation</p> <p style="text-align: center;">***PAR***</p> <p>Evacuate 2 mile radius, evacuate affected sector(s) plus 1 sector on each side of affected sector(s) for 2-5 miles.</p>	Main Stack	58.4 $\mu\text{Ci/cc}$	Vent Stack	2.08E-2 $\mu\text{Ci/cc}$	Torus Vent	2000 cpm		
Main Stack	58.4 $\mu\text{Ci/cc}$	Vent Stack	2.08E-2 $\mu\text{Ci/cc}$						
Torus Vent	2000 cpm								

NOTE: CDE = Committed Dose Equivalent, TPARD = Total Protective Action Recommendation Dose

5.0 Radioactivity Release

5.2 In-Plant Radiation

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<p>IC Unexpected Rise in Plant Radiation or Airborne Concentration</p> <p>5.2.1 Applicable Modes: ALL</p> <p>Valid Direct Area Radiation Monitor readings rise by a factor of 1000 over normal* levels</p> <p>* Normal levels can be considered as the highest reading in the past twenty-four hours excluding the current peak value.</p>
ALERT	<p>IC Release of Radioactive Material or Rises in Radiation Levels Within the Facility That Impedes Operation of Systems Required to Maintain Safe Operations or to Establish or Maintain Cold Shutdown</p> <p>5.2.2.a Applicable Modes: ALL</p> <p>Valid radiation level readings > 5000 mR/hr in areas requiring infrequent access to maintain plant safety functions as identified in procedure SE-1, SE-10</p> <p>AND</p> <p>Access is required for safe plant operation, but is impeded, due to radiation dose rates</p> <p>5.2.2.b Applicable Modes: ALL</p> <p>Valid Control Room OR Central Alarm Station radiation reading > 15 mR/hr</p>
SITE AREA EMERGENCY	None
GENERAL EMERGENCY	None

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6.0 Loss of Power

6.1 Loss of AC or DC Power

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<p>IC Loss of All Offsite Power to Essential Busses for Greater Than 15 Minutes</p> <p>6.1.1.a Applicable Modes: ALL The following conditions exist: Loss of Power to 2 and 3 Startup and Emergency Aux. Transformers and 343 Startup Transformer for >15 minutes</p> <p style="text-align: center;"><u>AND</u></p> <p>At least Two Diesel Generators are supplying power to their respective 4 KV emergency busses</p> <p>IC Unplanned Loss of Required DC Power During Cold Shutdown or Refueling Mode for Greater than 15 Minutes</p> <p>6.1.1.b Applicable Modes: 4, 5 Unplanned Loss of ALL safety related DC Power indicated by < 107.5 VDC on DC Panels 2(3)0D21, 22, 23, 24 for >15 minutes</p>
ALERT	<p>IC AC power capability to essential busses reduced to a single power source for greater than 15 minutes such that any additional single failure would result in station blackout</p> <p>6.1.2.a Applicable Modes: 1, 2, 3 The following conditions exist: Loss of Power to 2 and 3 Startup and Emergency Aux. Transformers and 343 Startup Transformer for >15 minutes</p> <p style="text-align: center;"><u>AND</u></p> <p>Only One 4 KV emergency bus powered from a Single Onsite Power Source due to the Loss of: Three of Four Division Diesel Generators, D/G Output Breakers, or 4 KV Emergency Busses as indicated by bus voltage</p> <p>IC Loss of All Offsite Power and Loss of All Onsite AC Power to Essential Busses During Cold Shutdown Or Refueling Mode</p> <p>6.1.2.b Applicable Modes: 4, 5, D The following conditions exist: Loss of Power to 2 and 3 Startup and Emergency Aux. Transformers and 343 Startup Transformer</p> <p style="text-align: center;"><u>AND</u></p> <p>Failure to restore power to at least One 4 KV emergency bus within 15 minutes from the time of loss of both offsite and onsite AC power</p>

<p>SITE AREA EMERGENCY</p>	<p>IC Loss of All Offsite Power and Loss of All Onsite AC Power to Essential Busses</p> <p>6.1.3.a Applicable Modes: 1, 2, 3</p> <p>The following conditions exist:</p> <p>Loss of Power to 2 and 3 Startup and Emergency Aux. Transformers and 343 Startup Transformer</p> <p><u>AND</u></p> <p>Failure to restore power to at least One 4 KV emergency bus within 15 minutes from the time of loss of both offsite and onsite AC</p> <p>IC Loss of All Vital DC Power</p> <p>6.1.3.b Applicable Modes: 1, 2, 3</p> <p>Loss of ALL Safety Related DC Power indicated by < 107.5 VDC on DC Panels 2(3)0D21, 22, 23, 24 for > 15 minutes</p>
<p>GENERAL EMERGENCY</p>	<p>IC Prolonged Loss of All Offsite Power and Prolonged Loss of All Onsite AC Power</p> <p>6.1.4 Applicable Modes: 1, 2, 3</p> <p>Prolonged loss of all offsite and onsite AC power as indicated by:</p> <p>Loss of Power to 2 and 3 Startup and Emergency Aux. Transformers and 343 Startup Transformer</p> <p><u>AND</u></p> <p>Failure of ALL Emergency Diesel Generators to supply power to 4 KV emergency busses</p> <p><u>AND</u></p> <p>At least one of the following conditions exist:</p> <ul style="list-style-type: none"> • Restoration of at least One emergency bus within 2 hours is NOT likely <p><u>OR</u></p> <ul style="list-style-type: none"> • Reactor Water Level cannot be maintained > -172 " <p><u>OR</u></p> <ul style="list-style-type: none"> • Torus temperature is on the "UNSAFE" side of the Heat Capacity Temperature Limit (HCTL) curve (T-102, T/T-1) <p style="text-align: center;">***PAR***</p> <p>Evacuate 2 mile radius, evacuate affected sector(s) plus 1 sector on each side of affected sector(s) for 2-5 miles.</p>

7.0 Internal Events

7.1 Technical Specification & Control Room Evacuation

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<p>IC Inability to Reach Required Shutdown Mode Within Technical Specification Limits</p> <p>7.1.1 Applicable Modes: 1, 2, 3 Inability to reach required shutdown mode within Tech. Spec. LCO required action completion time.</p>
ALERT	<p>IC Control Room Evacuation Has Been Initiated</p> <p>7.1.2 Applicable Modes: ALL Entry into SE-1 or SE-10 procedure for Control Room evacuation</p>
SITE AREA EMERGENCY	<p>IC Control Room Evacuation Has Been Initiated and Plant Control Cannot Be Established</p> <p>7.1.3 Applicable Modes: ALL The following conditions exist: Control room evacuation has been initiated <u>AND</u> Control of the plant cannot be established per SE-1 or SE-10 within 15 minutes</p>
GENERAL EMERGENCY	<p>None</p>

7.0 Internal Events

7.2 Loss of Decay Heat Removal Capability

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<i>None</i>
ALERT	<p>IC Inability to Maintain Plant in Cold Shutdown</p> <p>7.2.2 Applicable Modes: 4, 5</p> <p>The following conditions exist:</p> <p>Unplanned Loss of <u>ALL</u> Tech Spec required systems available to provide Decay Heat Removal functions</p> <p><u>AND</u></p> <p>Uncontrolled Temperature rise that either:</p> <ul style="list-style-type: none"> • Exceeds 212 °F (Excluding a <15 minute rise >212° F with a heat removal function restored) <p><u>OR</u></p> <ul style="list-style-type: none"> • Results in temperature rise approaching 212 °F (with <u>NO</u> heat removal function restored)
SITE AREA EMERGENCY	<p>IC Complete Loss of Function Needed to Achieve or Maintain Hot Shutdown</p> <p>7.2.3 Applicable Modes: 1, 2, 3</p> <p>Loss of TORUS heat sink capabilities as evidenced by T-102 T/T legs directing a T-112 Emergency Blowdown</p>
GENERAL EMERGENCY	<i>None</i>

7.0 Internal Events

7.3 Loss of Assessment / Communication Capability

CLASSIFICATION	EMERGENCY ACTION LEVEL
<p>UNUSUAL EVENT</p>	<p>IC Unplanned Loss of Most or All Safety System Annunciation or Indication in The Control Room for Greater Than 15 Minutes</p> <p>7.3.1.a Applicable Modes: 1, 2, 3</p> <p>Unplanned loss of most or all safety system annunciators (Table 7-1) OR indicators (Table 7-2) for > 15 minutes requiring increased surveillance to safely operate the unit(s).</p> <p>IC Unplanned Loss of All Onsite or Offsite Communications Capabilities</p> <p>7.3.1.b Applicable Modes: ALL</p> <p>Loss of ALL Onsite communications (Table 7-3) affecting the ability to perform routine operations OR Loss of ALL Offsite communications (Table 7-3)</p>
<p>ALERT</p>	<p>IC Unplanned Loss of Most or All Safety System Annunciation or Indication In Control Room With Either (1) a Significant Transient in Progress, or (2) Compensatory Non-Alarming Indicators are Unavailable</p> <p>7.3.2 Applicable Modes: 1, 2, 3</p> <p>Unplanned loss of most or all safety system annunciators (Table 7-1) OR indicators (Table 7-2) for > 15 minutes requiring increased surveillance to safely operate the unit(s) AND EITHER A significant plant transient is in progress (Table 7-4) OR the plant monitoring system (PMS) is unavailable.</p>
<p>SITE AREA EMERGENCY</p>	<p>IC Inability to Monitor a Significant Transient in Progress</p> <p>7.3.3 Applicable Modes: 1, 2, 3</p> <p>Loss of safety system annunciators (Table 7-1) AND indicators (Table 7-2) AND PMS AND a significant plant transient is in progress. (Table 7-4)</p>
<p>GENERAL EMERGENCY</p>	<p><i>None</i></p>

Table 7-1 Safety System Annunciators

ECCS
Containment Isolation
Reactor Trip
Process Radiation Monitoring

Table 7-2 Safety Function Indicators

Reactor Power
Decay Heat Removal
Containment Safety Functions

Table 7-3 Communications

	Onsite	Offsite
Site Phones (GTE System)	X	X
OMNI System	X	X
Plant Public Address	X	
Station Radio	X	
NRC (FTS-2000)		X
PA State Police Radio		X
Load Dispatcher Radio		X
PECO Dial Network		X

Table 7-4 Significant Plant Transients

SCRAM
Recirc Runbacks > 25% thermal power
Sustained power oscillations 25% peak to peak
Stuck open relief valve(s)
ECCS injection

8.0 External Events

8.1 Security Threats

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<p>IC Confirmed Security Event Which Indicates a Potential Degradation in the Level of Safety of the Plant</p> <p>8.1.1 Applicable Modes: ALL Credible sabotage or bomb threat within the Protected Areas <u>OR</u> Credible intrusion and attack threat to the Protected Areas <u>OR</u> Attempted intrusion and attack to the Protected Areas <u>OR</u> Attempted sabotage discovered within the Protected Areas <u>OR</u> Hostage/Extortion situation that threatens normal plant operations</p>
ALERT	<p>IC Security Event in a Plant Protected Area</p> <p>8.1.2 Applicable Modes: ALL Intrusion into plant protected areas by a hostile force <u>OR</u> Confirmed bomb, sabotage or sabotage device discovered in the Protected Areas</p>
SITE AREA EMERGENCY	<p>IC Security Event in a Plant Vital Area</p> <p>8.1.3 Applicable Modes: ALL Intrusion into plant Vital area by a hostile force <u>OR</u> Confirmed bomb, sabotage or sabotage device discovered in a Vital Area</p>
GENERAL EMERGENCY	<p>IC Security Event Resulting in Loss of Ability to Reach and Maintain Cold Shutdown</p> <p>8.1.4 Applicable Modes: ALL Loss of physical control of the control room due to security event <u>OR</u> Loss of physical control of all remote shutdown capability due to security event ***PAR*** Evacuate 2 mile radius, evacuate affected sector(s) plus 1 sector on each side of affected sector(s) for 2-5 miles.</p>

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8.0 External Events

8.2 Fire / Explosion and Toxic / Flammable Gases

CLASSIFICATION	EMERGENCY ACTION LEVEL
<p>UNUSUAL EVENT</p>	<p>IC Fire Within Protected Area Boundary Not Extinguished Within 15 Minutes of Detection</p> <p>8.2.1.a Applicable Modes: ALL Fire within ON-114 Plant Vital Structures (Table 8-1) which is not extinguished within 15 minutes of control room notification or verification of a control room alarm</p> <p>IC Release of Toxic or Flammable Gasses Deemed Detrimental to Safe Operation of the Plant</p> <p>8.2.1.b Applicable Modes: ALL Report or detection of toxic or flammable gases that could enter within the site area boundary in amounts that can affect normal operation of the plant <u>OR</u> Report by Local, County or State Officials for potential evacuation of site personnel based on offsite event</p> <p>IC Natural and Destructive Phenomena Affecting the Protected Area</p> <p>8.2.1.c Applicable Modes: ALL Report by plant personnel of an unanticipated explosion within protected area boundary resulting in visible damage to permanent structure or equipment</p>
<p>ALERT</p>	<p>IC Fire or Explosion Affecting the Operability of Plant Safety Systems Required to Establish or Maintain Safe Shutdown</p> <p>8.2.2.a Applicable Modes: ALL The following conditions exist: Fire or explosion which potentially makes inoperable: <i>Two or More</i> subsystems of a Safe Shutdown System (Table 8-2) <u>OR</u> <i>Two or More</i> Safe Shutdown Systems <u>OR</u> Plant Vital Structures containing Safe Shutdown Equipment <u>AND</u> Safe Shutdown System or Plant Vital Structure is required for the present Operational Mode</p>

ALERT	<p>IC Release of Toxic or Flammable Gases Within a Facility Structure Which Jeopardizes Operation of Systems Required to Maintain Safe Operations or to Establish or Maintain Cold Shutdown</p> <p>8.2.2.b Applicable Modes: ALL</p> <p>Report or detection of toxic gases within Plant Vital Structures (Table 8-1) in concentrations that will be life threatening to plant personnel</p> <p>OR</p> <p>Report or detection of flammable gases within Plant Vital Structures (Table 8-1) in concentrations affecting the safe operation of the plant</p>
SITE AREA EMERGENCY	<i>None</i>
GENERAL EMERGENCY	<i>None</i>

Table 8-1 Plant Vital Structures

Power Block
Diesel Generator Building
Emergency Pump Structure
Inner Screen Structure
Emergency Cooling Tower

Table 8-2 Safe Shutdown Systems

Diesel Generators	4KV Safeguard Buses	ADS
HPCI	RCIC	RHR (All Modes)
Core Spray	HPSW	ESW
SBGTS	ECW	CAC/CAD
PCIS	Control Room Ventilation	

8.0 External Events

8.3 Man-Made Events

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<p>IC Destructive Phenomena Affecting the Protected Area</p> <p>8.3.1.a Applicable Modes: ALL Vehicle crash within protected area boundary that may potentially damage plant structures containing functions and systems required for safe shutdown of the plant.</p> <p>8.3.1.b Applicable Modes: ALL Report of turbine failure resulting in casing penetration or damage to turbine or generator seals.</p>
ALERT	<p>IC Destructive Phenomena Affecting the Plant Vital Area</p> <p>8.3.2 Applicable Modes: ALL Vehicle crash affecting Plant Vital Structures (Table 8-1) OR Turbine failure generated missiles result in any visible structural damage to or penetration of any Plant Vital Structures (Table 8-1)</p>
SITE AREA EMERGENCY	<i>None</i>
GENERAL EMERGENCY	<i>None</i>

Table 8-1 Plant Vital Structures

Power Block
Diesel Generator Building
Emergency Pump Structure
Inner Screen Structure
Emergency Cooling Tower

8.0 External Events

8.4 Natural Events

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<p>IC Natural and Destructive Phenomena Affecting the Protected Area</p> <p>8.4.1.a Applicable Modes: ALL Earthquake >.01 g as determined by procedure SO 67.7.A</p> <p>8.4.1.b Applicable Modes: ALL Report by plant personnel of tornado striking within protected areas <u>OR</u> Wind speeds > 75 mph as indicated on site Meteorological data for > 15 minutes</p> <p>8.4.1.c Applicable Modes: ALL Assessment by the control room that an event has occurred. (Natural and Destructive Phenomena Affecting the Protected Areas)</p> <p>8.4.1.d Applicable Modes: All High River level > 112' <u>OR</u> Low River level < 98.5'</p>
ALERT	<p>IC Natural and Destructive Phenomena Affecting the Plant Vital Area</p> <p>8.4.2.a Applicable Modes: ALL Earthquake >.05 g (Operating Basis Earthquake OBE) as determined by procedure SO 67.7.A</p> <p>8.4.2.b Applicable Modes: ALL Tornado or wind speeds > 75 mph causing damage to Plant Vital Structures (Table 8-1)</p> <p>8.4.2.c Applicable Modes: ALL Report of any visible structural damage to any Plant Vital Structure (Table 8-1)</p> <p>8.4.2.d Applicable Modes: All High River level > 116' <u>OR</u> Low River level < 92.5'</p>
SITE AREA EMERGENCY	None
GENERAL EMERGENCY	None

Table 8-1 Plant Vital Structures

Power Block
Diesel Generator Building
Emergency Pump Structure
Inner Screen Structure
Emergency Cooling Tower

9.0 Other

9.1 General

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	<p>IC Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of an Unusual Event</p> <p>9.1.1 Applicable Modes: ALL</p> <p>Other conditions exist which in the judgment of the Emergency Director indicate a potential degradation of the level of safety of the plant</p>
ALERT	<p>IC Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of an Alert</p> <p>9.1.2 Applicable Modes: ALL</p> <p>Other conditions exist which in the Judgment of the Emergency Director indicate that plant safety systems may be degraded and that increased monitoring of plant functions is warranted</p>
SITE AREA EMERGENCY	<p>IC Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of Site Area Emergency</p> <p>9.1.3 Applicable Modes: ALL</p> <p>Other conditions exist which in the Judgment of the Emergency Director indicate actual or likely major failures of plant functions needed for protection of the public</p>
GENERAL EMERGENCY	<p>IC Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of General Emergency</p> <p>9.1.4 Applicable Modes: ALL</p> <p>Other conditions exist which in the Judgment of the Emergency Director indicate: (1) actual or imminent substantial core degradation with potential for loss of containment, or (2) potential for uncontrolled radionuclide releases. These releases can reasonably be expected to exceed EPA PAG plume exposure levels outside the site boundary</p> <p style="text-align: center;">***PAR***</p> <p>Evacuate 2 mile radius, evacuate affected sector(s) plus 1 sector on each side of affected sector(s) for 2-5 miles.</p>

Attachment 2
 TERMS AND DEFINITIONS

EMERGENCY ACTION LEVEL (EAL)	Plant parameters or other condition which if met or exceeded the emergency classification level and requires a declaration of emergency.		<table border="1"> <tr> <td data-bbox="1144 215 1276 487">UNUSUAL EVENT</td> <td data-bbox="1276 215 2003 487">Events in progress or have occurred, that indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.</td> </tr> </table>	UNUSUAL EVENT	Events in progress or have occurred, that indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.
UNUSUAL EVENT	Events in progress or have occurred, that indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.				
OPERABLE	System, subsystem, train, component, or device, and all auxiliaries required for their operation, is capable of performing its specified function in the intended manner.				
PROTECTIVE ACTION RECOMMENDATIONS (PAR)	Recommendation made to the state action to be taken to avoid or reduce projected dose to the public.		<table border="1"> <tr> <td data-bbox="1144 500 1276 1120">ALERT</td> <td data-bbox="1276 500 2003 1120">Events in progress or have occurred that involve actual or potential substantial degradation of the level of safety of the plant. Any releases of radioactive material are expected to be limited to small fractions of the Environmental Protective Agency (EPA) Protective Action Guidelines (PAG) exposure levels.</td> </tr> </table>	ALERT	Events in progress or have occurred that involve actual or potential substantial degradation of the level of safety of the plant. Any releases of radioactive material are expected to be limited to small fractions of the Environmental Protective Agency (EPA) Protective Action Guidelines (PAG) exposure levels.
ALERT	Events in progress or have occurred that involve actual or potential substantial degradation of the level of safety of the plant. Any releases of radioactive material are expected to be limited to small fractions of the Environmental Protective Agency (EPA) Protective Action Guidelines (PAG) exposure levels.				
PROJECTED DOSE	An estimate of radiation dose which affected individuals could potentially receive if protective actions are not taken.				
TPARD	Total Protective Action Recommendation Dose. (TPARD = External Dose & Internal Dose & Dose Due to 4-Day Shine)				
CDE	Committed Dose Equivalent. (CDE = internal Organ Dose from Ingestion)				
CEDE	Committed Effective Dose Equivalent. (CEDE = Internal Whole Body Dose from Ingestion)				
TEDE	Total Effective Dose Equivalent. (TEDE = Deep Dose Equivalent & CEDE Dose)				
PROTECTIVE ACTION GUIDE (PAG)	Action guidelines based on projections for the total integrated dose a member of the public would receive for the duration of the emergency.		<table border="1"> <tr> <td data-bbox="1144 1133 1276 1359">SITE AREA EMERGENCY</td> <td data-bbox="1276 1133 2003 1359">Events in progress or which have occurred that involve actual or likely major failures of plant functions needed for protection of the public. Any releases of radioactive material are not expected to exceed EPA PAG exposure levels except near site boundary.</td> </tr> </table>	SITE AREA EMERGENCY	Events in progress or which have occurred that involve actual or likely major failures of plant functions needed for protection of the public. Any releases of radioactive material are not expected to exceed EPA PAG exposure levels except near site boundary.
SITE AREA EMERGENCY	Events in progress or which have occurred that involve actual or likely major failures of plant functions needed for protection of the public. Any releases of radioactive material are not expected to exceed EPA PAG exposure levels except near site boundary.				
SABOTAGE	An act conducted by a person or persons with the intent of damaging or impairing the operation of the plant.				
SECURITY COMPROMISE	A security threat as illustrated by attempted entry or sabotage with the intent to gain physical control of the plant.		<table border="1"> <tr> <td data-bbox="1144 1372 1276 1541">GENERAL EMERGENCY</td> <td data-bbox="1276 1372 2003 1541">Events in progress or which have occurred that involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases of radioactive material can be reasonably expected to exceed EPA PAG exposure levels off-site for more than the immediate site area.</td> </tr> </table>	GENERAL EMERGENCY	Events in progress or which have occurred that involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases of radioactive material can be reasonably expected to exceed EPA PAG exposure levels off-site for more than the immediate site area.
GENERAL EMERGENCY	Events in progress or which have occurred that involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases of radioactive material can be reasonably expected to exceed EPA PAG exposure levels off-site for more than the immediate site area.				

ATTACHMENT 2

PEACH BOTTOM POWER STATION, UNITS 2 & 3

**Docket Nos. 50-277
50-278**

**License Nos. DPR-44
DPR-56**

EMERGENCY RESPONSE PROCEDURES

REPORT INDEX

PEACH BOTTOM ATOMIC POWER STATION

PROCEDURE INDEX REPORT:

FAC	DOC TYPE	PROC TYPE	PROCEDURE NUMBER	CURR REV NBR	TITLE	EFFECTIVE DATE	RESP GROUP	SYSTEM NBR
PB	PROC	ERP	ERP-C-1000	0005	EMERGENCY OPERATIONS FACILITY (EOF) ACTIVATION/DEACTIVATION	04/21/99	PWE	
PB	PROC	ERP	ERP-C-1000-1	0003	EOF ACTIVATION CHECKLIST	03/30/01	PWE	
PB	PROC	ERP	ERP-C-1000-2	0003	EOF DEACTIVATION CHECKLIST	04/21/99	PWE	
PB	PROC	ERP	ERP-C-1000-3	0000	EOF BUSINESS HOURS FIRST RESPONDER CHECKLIST	04/21/99	PWE	
PB	PROC	ERP	ERP-C-1000-4	0000	EOF AFTER HOURS FIRST RESPONDER CHECKLIST	04/21/99	PWE	
PB	PROC	ERP	ERP-C-1100	0003	EOF STAFF AUGMENTATION- CANCELLED - REPLACED BY ERP-C-1250	09/14/94	PWE	
PB	PROC	ERP	ERP-C-1200	0010	EMERGENCY RESPONSE MANAGER	03/30/01	PWE	
PB	PROC	ERP	ERP-C-1200-1	0000	EMERGENCY RESPONSE MANAGER TURNOVER/BRIEFING FORM	09/14/94	PWE	
PB	PROC	ERP	ERP-C-1200-2 EXH	0000	PROTECTIVE ACTION RECOMMENDATION WORKSHEET CANCELLED REPLACED BY ERP-C-1200	10/24/95	PWE	
PB	PROC	ERP	ERP-C-1200-3	0000	ERM PAR DELIVERY CHECKLIST	04/03/00	PWE	
PB	PROC	ERP	ERP-C-1200-4	0000	MINIMUM STAFFING POSITIONS NECESSARY TO ACTIVATE THE EOF	03/30/01	PWE	
PB	PROC	ERP	ERP-C-1210	0002	ASSISTANT EMERGENCY RESPONSE MANAGER (AERM) CANCELLED - REPLACED BY ERP-C-1200	10/24/95	PWE	
PB	PROC	ERP	ERP-C-1250	0003	EMERGENCY PREPAREDNESS COORDINATOR/EOF	11/02/98	PWE	
PB	PROC	ERP	ERP-C-1250-1	0000	EMERGENCY POWER INSTRUCTIONS	09/14/94	PWE	
PB	PROC	ERP	ERP-C-1250-2	0002	EMERGENCY PREPAREDNESS COORDINATOR INSTRUCTIONS FOR ASPEN BACKUP NOTIFICATION SYSTEM	05/11/01	PWE	
PB	PROC	ERP	ERP-C-1250-3	0000	EMERGENCY PREPAREDNESS COORDINATOR INSTRUCTIONS TO STOP STAFFING	09/14/94	PWE	
PB	PROC	ERP	ERP-C-1250-4	0000	EMERGENCY PREPAREDNESS COORDINATOR INSTRUCTIONS FOR SYSTEM RESET	09/14/94	PWE	
PB	PROC	ERP	ERP-C-1300	0010	EMERGENCY OPERATIONS FACILITY (EOF) DOSE ASSESSMENT TEAM LEADER	08/31/00	PWE	
PB	PROC	ERP	ERP-C-1300-1	0003	DOSE ASSESSMENT TEAM LEADER INITIAL ACTIONS	04/04/00	PWE	
PB	PROC	ERP	ERP-C-1300-2	0000	DOSE ASSESSMENT TURNOVER LIST	09/23/94	PWE	
PB	PROC	ERP	ERP-C-1300-3	0004	PROTECTIVE ACTION RECOMMENDATION WORKSHEET	03/30/01	PWE	
PB	PROC	ERP	ERP-C-1300-4	0000	OFFSITE SAMPLE ANALYSIS REQUESTS	09/23/94	PWE	
PB	PROC	ERP	ERP-C-1300-5	0001	DETERMINATION OF PROTECTIVE ACTION RECOMMENDATIONS (PARS)	11/02/98	PWE	
PB	PROC	ERP	ERP-C-1300-6	0001	DOSE ASSESSMENT GROUP INITIAL ACTIONS	04/10/98	PWE	
PB	PROC	ERP	ERP-C-1300-7	0000	OBTAINING EPDS MET/RAD DATA	03/26/97	PWE	
PB	PROC	ERP	ERP-C-1300-8	0000	USE OF MODE A/MODE B OF CDM	03/26/97	PWE	
PB	PROC	ERP	ERP-C-1300-9	0001	OBTAINING MET DATA FROM NATIONAL WEATHER SERVICE	09/12/97	PWE	
PB	PROC	ERP	ERP-C-1310	0003	EMERGENCY OPERATIONS FACILITY (EOF) DOSE ASSESSMENT GROUP - CANCELLED - REPLACED BY ERP-C-1300	03/26/97	PWE	
PB	PROC	ERP	ERP-C-1310-1	0000	DOSE ASSESSMENT GROUP LEADER INITIAL ACTIONS CANCELLED - REPLACED BY ERP-C-1300	03/26/97	PWE	
PB	PROC	ERP	ERP-C-1310-2	0000	OBTAINING MET DATA FROM NATIONAL WEATHER SERVICE CANCELLED - REPLACED BY ERP-C-1300	03/24/97	PWE	
PB	PROC	ERP	ERP-C-1310-3	0000	OBTAINING EPDS MET/RAD DATA - CANCELLED - NO REPLACED BY ERP-C-1300	03/26/97	PWE	
PB	PROC	ERP	ERP-C-1310-4	0000	USE OF MODE A/MODE B OF CDM CANCELLED - REPLACED BY ERP-C-1300	03/26/97	PWE	
PB	PROC	ERP	ERP-C-1320	0007	EMERGENCY OPERATIONS FACILITY (EOF) FIELD SURVEY GROUP LEADER	08/31/00	PWE	
PB	PROC	ERP	ERP-C-1320-1	0002	FIELD SURVEY GROUP LEADER INITIAL ACTIONS	04/10/98	PWE	
PB	PROC	ERP	ERP-C-1320-2	0001	FIELD SURVEY GROUP LEADER TURNOVER SHEET	03/26/97	PWE	
PB	PROC	ERP	ERP-C-1320-3	0002	FIELD SURVEY GROUP LEADER DATA SHEET	08/31/00	PWE	
PB	PROC	ERP	ERP-C-1400	0004	ENGINEERING SUPPORT TEAM	11/02/98	PWE	
PB	PROC	ERP	ERP-C-1400-1	0002	ENGINEERING SUPPORT TEAM CHECKLIST	11/02/98	PWE	
PB	PROC	ERP	ERP-C-1410	0002	CORE DAMAGE ASSESSMENT	09/09/98	PWE	
PB	PROC	ERP	ERP-C-1410-1	0000	RADIOLOGICAL DATA	09/14/94	PWE	
PB	PROC	ERP	ERP-C-1410-2	0001	HYDROGEN CONCENTRATION DATA	09/09/98	PWE	
PB	PROC	ERP	ERP-C-1410-3	0001	CONTAINMENT RADIATION MONITOR DATA	09/09/98	PWE	

PROCEDURE INDEX REPORT:

FAC	DOC TYPE	PROC TYPE	PROCEDURE NUMBER	CURR REV NBR	TITLE	EFFECTIVE DATE	RESP GROUP	SYSTEM NBR
PB	PROC	ERP	ERP-C-1410-4	0000	METAL WATER REACTION - CANCELLED NO REPLACEMENT	09/09/98	PWE	
PB	PROC	ERP	ERP-C-1410-5	0002	PERCENT OF FUEL INVENTORY AIRBORNE IN THE CONTAINMENT VS. APPROXIMATE SOURCE AND DAMAGE ESTIMATE	06/01/01	PWE	
PB	PROC	ERP	ERP-C-1410-6	0001	PROCEDURES FOR ESTIMATING FUEL DAMAGE BASED ON MEASURED I-131 AND XE-133 CONCENTRATIONS	09/09/98	PWE	
PB	PROC	ERP	ERP-C-1500	0006	LOGISTICS SUPPORT TEAM	04/14/00	PWE	
PB	PROC	ERP	ERP-C-1500-1	0001	MESSAGE AND INFORMATION INSTRUCTIONS	10/24/95	PWE	
PB	PROC	ERP	ERP-C-1500-2	0001	HELICOPTER LANDING INFORMATION	10/24/95	PWE	
PB	PROC	ERP	ERP-C-1900	0004	RECOVERY PHASE IMPLEMENTATION	11/02/98	PWE	
PB	PROC	ERP	ERP-C-1900-1	0000	RECOVERY PHASE IMPLEMENTATION FLOW CHART	06/28/93	PWE	
PB	PROC	ERP	ERP-C-1900-2	0002	PEACH BOTTOM ATOMIC POWER STATION RECOVERY ACCEPTANCE CHECKLIST	04/02/98	PWE	
PB	PROC	ERP	ERP-C-1900-3	0002	LIMERICK GENERATING STATION RECOVERY ACCEPTANCE CHECKLIST	04/02/98	PWE	
PB	PROC	ERP	ERP-C-1900-4	0002	RECOVERY PLAN OUTLINE	04/02/98	PWE	
PB	PROC	ERP	ERP-C-1900-5	0002	ASSESSMENT CONSIDERATIONS	12/28/99	PWE	
PB	PROC	ERP	ERP-101	0022	CLASSIFICATION OF EMERGENCIES	08/15/00	PWE	
PB	PROC	ERP	ERP-101 BASES	0001	PBAPS EAL TECHNICAL BASIS MANUAL TABLE OF CONTENTS	03/30/01	PWE	
PB	PROC	ERP	ERP-110	0013	EMERGENCY NOTIFICATIONS	05/11/01	PWE	
PB	PROC	ERP	ERP-110 APP 1	0057	EMERGENCY NOTIFICATION TELEPHONE LIST	01/06/01	PWE	
PB	PROC	ERP	ERP-110 APP 2	0024	EMERGENCY CLASSIFICATION NOTIFICATION TELEPHONE LIST FOR A SITE EMERGENCY OR GENERAL EMERGENCY CANCELLED - REPLACED BY ERP-110 APPENDIX 1	07/21/93	PWE	
PB	PROC	ERP	ERP-120	0002	PARTIAL PLANT EVACUATION CANCELLED - REPLACED BY ERP-130 & GP-15	08/10/92	PWE	
PB	PROC	ERP	ERP-130	0015	SITE EVACUATION	06/01/01	PWE	
PB	PROC	ERP	ERP-140	0019	EMERGENCY RESPONSE ORGANIZATION (ERO) CALL OUT	03/04/99	PWE	
PB	PROC	ERP	ERP-140 APP 1	0019	AUTOMATED ERO ACTIVATION	08/06/98	PWE	
PB	PROC	ERP	ERP-140 APP 2	0022	ASPEN EMERGENCY MESSAGE CANCELLED - REPLACED BY ERP-110 APP 1	08/06/98	PWE	
PB	PROC	ERP	ERP-140 APP 3	0022	DOSE ASSESSMENT TEAM CANCELLED - REPLACED BY PIMS PRINTOUTS ISSUED MONTHLY PER RT/ERP-2	08/20/92		
PB	PROC	ERP	ERP-140 APP 4	0015	CHEMISTRY SAMPLING & ANALYSIS TEAM CANCELLED - REPLACED BY PIMS PRINTOUTS ISSUED MONTHLY PER RT/ERP-2	08/20/92		
PB	PROC	ERP	ERP-140 APP 5	0014	DAMAGE REPAIR TEAM CANCELLED - REPLACED BY PIMS PRINTOUTS ISSUED MONTHLY PER RT/ERP-2	08/20/92		
PB	PROC	ERP	ERP-140 APP 6	0013	SECURITY TEAM CANCELLED - REPLACED BY PIMS PRINTOUTS ISSUED MONTHLY PER RT/ERP-2	08/20/92		
PB	PROC	ERP	ERP-140 APP 7	0017	PERSONNEL SAFETY TEAM CANCELLED - REPLACED BY PIMS PRINTOUTS ISSUED MONTHLY PER RT/ERP-2	08/20/92		
PB	PROC	ERP	ERP-140 APP 8	0009	COMPANY CONSULTANTS AND CONTRACTORS CANCELLED - INCLUDED IN EMERGENCY TELEPHONE DIRECTORY	08/20/92		
PB	PROC	ERP	ERP-140 APP 9	0011	NEARBY PUBLIC AND INDUSTRIAL USERS OF DOWNSTREAM WATER CANCELLED - INCLUDED IN EMERGENCY TELEPHONE DIRECTORY	08/20/92		
PB	PROC	ERP	ERP-200	0017	EMERGENCY DIRECTOR (ED)	03/27/01	PWE	
PB	PROC	ERP	ERP-200 APP 1	0004	EMERGENCY DIRECTOR CHECKLIST (MCR)	05/11/01	PWE	
PB	PROC	ERP	ERP-200 APP 2	0005	EMERGENCY DIRECTOR CHECKLIST (TSC)	03/30/01	PWE	
PB	PROC	ERP	ERP-200 APP 3	0004	EVENT NOTIFICATION FORM	07/10/00	PWE	
PB	PROC	ERP	ERP-200 APP 4	0004	STATION PUBLIC ADDRESS ANNOUNCEMENTS	07/10/00	PWE	
PB	PROC	ERP	ERP-200 APP 5	0005	PAR DEVELOPMENT AND ISSUANCE	04/25/01	PWE	
PB	PROC	ERP	ERP-200 APP 6	0001	DOSE ASSESSMENT DATA SHEET	07/10/00		
PB	PROC	ERP	ERP-200 APP 7	0000	TURNOVER/BREIFING FORM	07/10/00	PWE	
PB	PROC	ERP	ERP-200 APP 8	0000	MINIMUM STAFFING POSITIONS NECESSARY TO ACTIVATE THE TSC	03/27/01	PWE	
PB	PROC	ERP	ERP-205	0010	EMERGENCY PREPAREDNESS COORDINATOR/TSC	03/27/01	PWE	

PROCEDURE INDEX REPORT:

FAC	DOC TYPE	PROC TYPE	PROCEDURE NUMBER	CURR REV NBR	TITLE	EFFECTIVE DATE	RESP GROUP	SYSTEM NBR
PB	PROC	ERP	ERP-206	0008	SUPPORT SERVICES GROUP	02/07/01	PWE	
PB	PROC	ERP	ERP-210	0000	TRIP TABLE COMMUNICATOR (TSC)	09/12/97	PWE	
PB	PROC	ERP	ERP-220	0006	OPERATIONS GROUP	10/05/95	PWE	
PB	PROC	ERP	ERP-230	0016	OPERATIONS SUPPORT CENTER (OSC) ACTIVATION	10/07/98	PWE	
PB	PROC	ERP	ERP-230 APP 1	0001	PERSONNEL EXPOSURE LOG OPERATIONS SUPPORT CENTER (OSC) CANCELLED - NO REPLACEMENT	11/28/95	PWE	
PB	PROC	ERP	ERP-250	0011	TECHNICAL SUPPORT CENTER (TSC) ACTIVATION CANCELLED - NO REPLACEMENT	10/14/93		
PB	PROC	ERP	ERP-300	0007	DOSE ASSESSMENT TEAM LEADER (DATL) CANCELLED - NO REPLACEMENT	09/23/94	PWE	
PB	PROC	ERP	ERP-301	0006	DOSE ASSESSMENT COORDINATOR (DAC)	04/25/01	PWE	
PB	PROC	ERP	ERP-305	0004	DOSE ASSESSMENT GROUP LEADER (DAGL) CANCELLED - NO REPLACEMENT	03/12/93		
PB	PROC	ERP	ERP-306	0000	LIMERICK RESPONSE FOR SHIFT DOSE ASSESSMENT PERSONNEL (SDAP)	06/30/00	PWE	
PB	PROC	ERP	ERP-310	0007	DOSE ASSESSMENT GROUP CANCELLED - NO REPLACEMENT	09/23/94	PWE	
PB	PROC	ERP	ERP-315	0014	OPERATION OF THE DOSE ASSESSMENT COMPUTER	04/24/00	PWE	
PB	PROC	ERP	ERP-318	0001	LIQUID RELEASE DOSE CALCULATIONS AT DOWNSTREAM WATER INTAKE FACILITIES CANCELLED - REPLACED BY ERP-360	06/18/93		
PB	PROC	ERP	ERP-319	0001	LIQUID RELEASE DOSE CALCULATIONS FOR FISH INGESTION CANCELLED - REPLACED BY ERP-360	06/18/93		
PB	PROC	ERP	ERP-325	0005	SHIFT DOSE ASSESSMENT PERSONNEL	08/25/98	PWE	
PB	PROC	ERP	ERP-325 APP 1	0000	CANCELLED - REPLACED BY MESOREM PROGRAM	03/03/95	PWE	
PB	PROC	ERP	ERP-330	0009	FIELD SURVEY GROUP LEADER (FSGL) CANCELLED - NO REPLACEMENT	09/23/94	PWE	
PB	PROC	ERP	ERP-340	0006	FIELD SURVEY GROUP	03/19/97	PWE	
PB	PROC	ERP	ERP-340 APP 1	0005	FIELD SURVEY DATA SHEET	08/29/00	PWE	
PB	PROC	ERP	ERP-360	0000	RADIOACTIVE LIQUID RELEASE CANCELLED - REPLACED BY ERP-315	06/23/94		
PB	PROC	ERP	ERP-400	0006	CHEMISTRY TEAM LEADER (CTL)	01/20/00	PWE	
PB	PROC	ERP	ERP-410	0009	CHEMISTRY GROUP	04/30/98	PWE	
PB	PROC	ERP	ERP-410 APP 1	0000	CHEMISTRY SAMPLE CHECK-OFF LIST CANCELLED - REPLACED BY ERP-410	12/11/96	PWE	
PB	PROC	ERP	ERP-410 APP 2	0000	CHEMISTRY SAMPLE AND ANALYSIS LOG SHEET CANCELLED - REPLACED BY ERP-410	12/11/96	PWE	
PB	PROC	ERP	ERP-500	0010	SECURITY TEAM LEADER (STL)	04/24/00	PWE	
PB	PROC	ERP	ERP-510	0009	PERSONNEL ACCOUNTABILITY CANCELLED - NO REPLACEMENT	11/28/95	PWE	
PB	PROC	ERP	ERP-520	0005	SECURITY GROUP LEADERS	11/28/95	PWE	
PB	PROC	ERP	ERP-520 APP 1	0000	UNIT 1 PERSONNEL LOG CANCELLED - NO REPLACEMENT	11/28/95	PWE	
PB	PROC	ERP	ERP-600	0013	HEALTH PHYSICS TEAM LEADER (HPTL)	07/07/99	PWE	
PB	PROC	ERP	ERP-610	0004	FIRST AID/SEARCH AND RESCUE GROUP CANCELLED - NO REPLACEMENT	02/05/93		
PB	PROC	ERP	ERP-620	0012	HEALTH PHYSICS GROUP	10/13/00	PWE	
PB	PROC	ERP	ERP-620 APP 1	0000	HABITABILITY STATUS LOG SHEET	11/05/93	PWE	101
PB	PROC	ERP	ERP-620 APP 2	0000	ARM STATUS LOG	11/05/93	PWE	100
PB	PROC	ERP	ERP-620 APP 3	0002	HEALTH PHYSICS BRIEFING GUIDE	09/04/98	PWE	
PB	PROC	ERP	ERP-620 APP 4	0000	ACCESS BRIEFING GUIDE CANCELLED - NO REPLACEMENT	05/08/96	PWE	
PB	PROC	ERP	ERP-630	0003	DOSIMETRY, BIOASSAY, AND RESPIRATORY PROTECTION GROUP CANCELLED - NO REPLACEMENT	03/18/93		
PB	PROC	ERP	ERP-640	0006	VEHICLE AND EVACUEE CONTROL GROUP	05/28/97	PWE	
PB	PROC	ERP	ERP-640 APP 1	0000	CONTAMINATED VEHICLE SURVEY FORM CANCELLED - NO REPLACEMENT	05/28/97	PWE	
PB	PROC	ERP	ERP-640 APP 2	0000	UNCONTAMINATED VEHICLE FORM CANCELLED - NO REPLACEMENT	05/28/97	PWE	
PB	PROC	ERP	ERP-650	0006	TRANSPORT OF CONTAMINATED INJURY OFF-SITE	11/27/96	PWE	
PB	PROC	ERP	ERP-660	0007	ENTRY FOR EMERGENCY REPAIR AND OPERATIONS CANCELLED - REPLACED BY ERP-620	07/11/94		
PB	PROC	ERP	ERP-670	0004	EMERGENCY RADIATION EXPOSURE GUIDELINES AND CONTROLS	12/11/96	PWE	

PROCEDURE INDEX REPORT:

FAC	DOC TYPE	PROC TYPE	PROCEDURE NUMBER	CURR REV NBR	TITLE	EFFECTIVE DATE	RESP GROUP	SYSTEM NBR
PB	PROC	ERP	ERP-680	0007	CONTROL OF THYROID BLOCKING POTASSIUM IODIDE (KI) TABLETS	09/22/00	PWE	
PB	PROC	ERP	ERP-680 APP 1	0001	POTASSIUM IODIDE WORKSHEET	02/20/97	PWE	
PB	PROC	ERP	ERP-680 APP 2	0000	POTASSIUM IODIDE CONSENT FORM	11/30/94	PWE	
PB	PROC	ERP	ERP-680 APP 3	0001	INSTRUCTION AND RECORD SHEET FOR PERSONS RECEIVING KI	02/20/97	PWE	
PB	PROC	ERP	ERP-680 APP 4	0001	KI AUTHORIZATION	02/20/97	PWE	
PB	PROC	ERP	ERP-700	0010	TECHNICAL SUPPORT TEAM	09/22/00	PWE	
PB	PROC	ERP	ERP-710	0008	TECHNICAL SUPPORT GROUP CANCELLED - REPLACED BY ERP-700	11/02/98	PWE	
PB	PROC	ERP	ERP-800	0006	OPERATIONS SUPPORT CENTER DIRECTOR (OSC DIRECTOR)	10/07/98	PWE	
PB	PROC	ERP	ERP-810	0011	MAINTENANCE TEAM	07/07/99	PWE	

** END OF REPORT **