

	GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	UNUSUAL EVENT																																				
R Rad Effluent	RG1.1 Release of gaseous radioactivity resulting in offsite dose greater than 1,000 mrem TEDE or 5,000 mrem thyroid CDE 1 2 3 4 5 DEF	RS1 Release of gaseous radioactivity resulting in offsite dose greater than 100 mrem TEDE or 500 mrem thyroid CDE 1 2 3 4 5 DEF	RA1 Release of gaseous or liquid radioactivity resulting in offsite dose greater than 10 mrem TEDE or 50 mrem thyroid CDE 1 2 3 4 5 DEF	RU1 Release of gaseous or liquid radioactivity greater than 2 times the ODCM limits for 60 minutes or longer 1 2 3 4 5 DEF																																				
	RG1.2 In the absence of real-time dose assessment, reading on any Table R-1 effluent radiation monitor > column "GE" for ≥ 15 min. (Notes 1, 2, 3, 4)	RS1.1 In the absence of real-time dose assessment, reading on any Table R-1 effluent radiation monitor > column "SAE" for ≥ 15 min. (Notes 1, 2, 3, 4)	RA1.1 In the absence of real-time dose assessment, reading on any Table R-1 effluent radiation monitor > column "ALERT" for ≥ 15 min. (Notes 1, 2, 3, 4)	RU1.1 Reading on any Table R-1 effluent radiation monitor > column "UE" for ≥ 60 min. (Notes 1, 2, 3)																																				
	RG1.3 Dose assessment using actual meteorology indicates doses > 1000 mrem TEDE or 5000 mrem thyroid CDE at or beyond the SITE BOUNDARY. - Closed window dose rates > 1000 mR/hr expected to continue for ≥ 60 min. - Analyses of field survey samples indicate thyroid CDE > 5000 mrem for 60 min. of inhalation. (Notes 1, 2)	RS1.2 Dose assessment using actual meteorology indicates doses > 100 mrem TEDE or 500 mrem thyroid CDE at or beyond the SITE BOUNDARY. - Closed window dose rates > 100 mR/hr expected to continue for ≥ 60 min. - Analyses of field survey samples indicate thyroid CDE > 500 mrem for 60 min. of inhalation. (Notes 1, 2)	RA1.2 Dose assessment using actual meteorology indicates doses > 10 mrem TEDE or 50 mrem thyroid CDE at or beyond the SITE BOUNDARY (Notes 3, 4)	RU1.2 Core uncovery is indicated by EITHER of the following: - UNPLANNED increase in any Table C-1 sump or tank levels due to a loss of RPV inventory - UNPLANNED increase in ARM Channel 28 Between Reactor and Fuel Pool > 1000 mR/hr AND Any Containment Challenge indication, Table C-2																																				
2 Irradiated Fuel Event	RG2 Spent fuel pool level cannot be restored to at least the top of the fuel racks for 60 minutes or longer 1 2 3 4 5 DEF	RS2 Spent fuel pool level at the top of the fuel racks 1 2 3 4 5 DEF	RA2 Significant lowering of water level above, or damage to, irradiated fuel 1 2 3 4 5 DEF	RU2 UNPLANNED loss of water level above irradiated fuel 1 2 3 4 5 DEF																																				
C Cold SD/Refuel System	RG2.1 Spent fuel pool level cannot be restored ≥ 95 ft. 3 in. ele. for > 60 min. (Note 1)	RS2.1 Lowering of spent fuel pool level to ≤ 95 ft. 3 in. ele.	RA2.1 Uncovery of irradiated fuel in the REFUELING PATHWAY AND Damage to irradiated fuel resulting in a release of radioactivity AND Any of the following radiation monitor indications: - Reactor Bldg Vent Rad Monitor Channel A or B (> 3 mR/hr) - ARM Channel 26 New Fuel Vault (> 6 mR/hr) - ARM Channel 27 North of Fuel Pool (> 10 mR/hr) - ARM Channel 28 Between Reactor and Fuel Pool (> 1000 mR/hr) - ARM Channel 29 Cask Wash Area (> 40 mR/hr)	RU2.1 UNPLANNED water level drop in the REFUELING PATHWAY as indicated by low water level alarm (A-4/A-6) or indication AND UNPLANNED rise in area radiation levels as indicated by any of the following radiation monitors: - ARM Channel 26 New Fuel Vault - ARM Channel 27 North of Fuel Pool - ARM Channel 28 Between Reactor and Fuel Pool - ARM Channel 29 Cask Wash Area																																				
	<table border="1"> <caption>Table R-1 Effluent Monitor Classification Thresholds</caption> <thead> <tr> <th>Release Point</th> <th>Monitor</th> <th>GE</th> <th>SAE</th> <th>Alert</th> <th>UE</th> </tr> </thead> <tbody> <tr> <td>Main Stack Rad</td> <td>D12-RM-238</td> <td>2.13E+09 µCi/sec</td> <td>2.13E+07 µCi/sec</td> <td>2.13E+07 µCi/sec</td> <td>1.80E+06 µCi/sec</td> </tr> <tr> <td>Reactor Bldg Vent Noble Gas</td> <td>CAC-AOH-1264-3</td> <td>---</td> <td>---</td> <td>---</td> <td>6.14E+04 cpm</td> </tr> <tr> <td>Turbine Building Vent Rad</td> <td>D12-RM-23</td> <td>1.07E+06 µCi/sec</td> <td>1.07E+07 µCi/sec</td> <td>1.07E+06 µCi/sec</td> <td>1.13E+04 µCi/sec</td> </tr> <tr> <td>Service Water Effluent Radioactivity</td> <td>D12-RM-6505</td> <td>---</td> <td>---</td> <td>---</td> <td>2 X Hi alarm</td> </tr> <tr> <td>Radwaste Effluent Rad</td> <td>D12-RM-6504</td> <td>---</td> <td>---</td> <td>---</td> <td>2 X Hi/Hi alarm</td> </tr> </tbody> </table>		Release Point	Monitor	GE	SAE	Alert	UE	Main Stack Rad	D12-RM-238	2.13E+09 µCi/sec	2.13E+07 µCi/sec	2.13E+07 µCi/sec	1.80E+06 µCi/sec	Reactor Bldg Vent Noble Gas	CAC-AOH-1264-3	---	---	---	6.14E+04 cpm	Turbine Building Vent Rad	D12-RM-23	1.07E+06 µCi/sec	1.07E+07 µCi/sec	1.07E+06 µCi/sec	1.13E+04 µCi/sec	Service Water Effluent Radioactivity	D12-RM-6505	---	---	---	2 X Hi alarm	Radwaste Effluent Rad	D12-RM-6504	---	---	---	2 X Hi/Hi alarm	RA2.2 Lowering of spent fuel pool level to ≤ 105 ft. 3 in. ele.	RU2.2 Radiation levels that IMPEDE access to equipment necessary for normal plant operations, shutdown or shutdown
	Release Point	Monitor	GE	SAE	Alert	UE																																		
Main Stack Rad	D12-RM-238	2.13E+09 µCi/sec	2.13E+07 µCi/sec	2.13E+07 µCi/sec	1.80E+06 µCi/sec																																			
Reactor Bldg Vent Noble Gas	CAC-AOH-1264-3	---	---	---	6.14E+04 cpm																																			
Turbine Building Vent Rad	D12-RM-23	1.07E+06 µCi/sec	1.07E+07 µCi/sec	1.07E+06 µCi/sec	1.13E+04 µCi/sec																																			
Service Water Effluent Radioactivity	D12-RM-6505	---	---	---	2 X Hi alarm																																			
Radwaste Effluent Rad	D12-RM-6504	---	---	---	2 X Hi/Hi alarm																																			
<table border="1"> <caption>Table R-2 Safe Shutdown Rooms/Areas</caption> <thead> <tr> <th>Room / Area</th> <th>Mode(s)</th> </tr> </thead> <tbody> <tr> <td>- Reactor Building -17' North RHR Unit 1 & 2</td> <td>3, 4, 5</td> </tr> <tr> <td>- Reactor Building -17' South RHR Unit 1 & 2</td> <td>3, 4, 5</td> </tr> <tr> <td>- Reactor Building 20' East & West MCC Areas Unit 1 & 2</td> <td>3, 4, 5</td> </tr> <tr> <td>- Reactor Building 20' Pipe Tunnel Unit 1 & 2</td> <td>3, 4, 5</td> </tr> </tbody> </table>		Room / Area	Mode(s)	- Reactor Building -17' North RHR Unit 1 & 2	3, 4, 5	- Reactor Building -17' South RHR Unit 1 & 2	3, 4, 5	- Reactor Building 20' East & West MCC Areas Unit 1 & 2	3, 4, 5	- Reactor Building 20' Pipe Tunnel Unit 1 & 2	3, 4, 5	RA3 Radiation levels that IMPEDE access to equipment necessary for normal plant operations, shutdown or shutdown	RA3.1 Dose rates > 15 mR/hr in EITHER of the following areas: Control Room (ARM Channel 1-1) OR Central Alarm Station (by survey)	RA3.2 An UNPLANNED event results in radiation levels that prohibit or IMPEDE access to any Table R-2 rooms or areas (Note 5)																										
Room / Area	Mode(s)																																							
- Reactor Building -17' North RHR Unit 1 & 2	3, 4, 5																																							
- Reactor Building -17' South RHR Unit 1 & 2	3, 4, 5																																							
- Reactor Building 20' East & West MCC Areas Unit 1 & 2	3, 4, 5																																							
- Reactor Building 20' Pipe Tunnel Unit 1 & 2	3, 4, 5																																							
H Hazards	HG1 Hostile Action resulting in loss of physical control of the facility 1 2 3 4 5 DEF	HS1 Hostile Action within the Protected Area 1 2 3 4 5 DEF	HA1 Hostile action within the owner controlled area or airborne attack threat 1 2 3 4 5 DEF	HU1 Confirmed SECURITY CONDITION or threat 1 2 3 4 5 DEF																																				
	HG1.1 A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the Security Shift Supervision AND EITHER of the following has occurred: - Reactivity - RPV water level - RCS heat removal OR Damage to spent fuel has occurred or is IMMINENT	HS1.1 A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the Security Shift Supervision	HA1.1 A HOSTILE ACTION is occurring or has occurred within the OWNER CONTROLLED AREA as reported by the Security Shift Supervision	HU1.1 A SECURITY CONDITION that does not involve a HOSTILE ACTION as reported by the Security Shift Supervision																																				
	HG1.2 A validated notification from NRC of an aircraft attack threat within 30 min. of the site	HA1.2 A validated notification from NRC of an aircraft attack threat within 30 min. of the site	HU1.2 Notification of a credible security threat directed at the site	HU1.3 A validated notification from the NRC providing information of an aircraft threat																																				
E ISFSI	HG7 Other conditions exist which in the judgment of the Site Emergency Coordinator warrant declaration of a General Emergency 1 2 3 4 5 DEF	HS7 Other conditions exist which in the judgment of the Site Emergency Coordinator warrant declaration of a Site Area Emergency 1 2 3 4 5 DEF	HA7 Other conditions exist that in the judgment of the Site Emergency Coordinator warrant declaration of an Alert 1 2 3 4 5 DEF	HU7 Other conditions exist which in the judgment of the Site Emergency Coordinator warrant declaration of a UE 1 2 3 4 5 DEF																																				
	HG7.1 Other conditions exist which in the judgment of the Site Emergency Coordinator indicate that events are in progress or have occurred which involve actual or IMMINENT substantial core degradation or melting with potential for loss of containment integrity or HOSTILE ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area	HS7.1 Other conditions exist which in the judgment of the Site Emergency Coordinator indicate that events are in progress or have occurred which involve actual or likely major failures of plant functions needed for protection of the public or HOSTILE ACTION that results in intentional damage or malicious acts. (1) toward site personnel or equipment that could lead to the likely failure of or, (2) that prevent effective access to equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary.	HA7.1 Other conditions exist which, in the judgment of the Site Emergency Coordinator, indicate that events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.	HU7.1 Other conditions exist which in the judgment of the Site Emergency Coordinator indicate that events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.																																				
	HG7.2 Damage to a loaded canister CONFINEMENT BOUNDARY 1 2 3 4 5 DEF	HU7.2 Damage to a loaded canister confinement boundary as indicated by an on-contact radiation reading on the surface of a loaded spent fuel cask > any of the following: - 1,400 mrem/hr on the HSM-H front surface - 10 mrem/hr on the HSM-H door centerline - 20 mrem/hr on the end shield wall exterior																																						

	GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	UNUSUAL EVENT
1 RPV Level	CG1 Loss of RPV inventory affecting fuel clad integrity with Containment challenged 4 5	CS1 Loss of RPV inventory affecting core decay heat removal capability 4 5	CA1 Loss of RPV inventory 4 5	CU1 UNPLANNED loss of RPV inventory for 15 minutes or longer 4 5
	CG1.1 RPV level < TAF for ≥ 30 min. (Note 1) AND Any Containment Challenge indication, Table C-2	CS1.1 CONTAINMENT CLOSURE not established AND RPV level < 45 in. (Level 3)	CA1.1 Loss of RPV inventory as indicated by RPV water level < 105 in. above TAF (Level 2)	CU1.1 UNPLANNED loss of reactor coolant results in RPV water level less than a required lower limit for ≥ 15 min. (Note 1)
	CG1.2 RPV level cannot be monitored for ≥ 30 min. (Note 1) AND Core uncovery is indicated by EITHER of the following: - UNPLANNED increase in any Table C-1 sump or tank levels due to a loss of RPV inventory - UNPLANNED increase in ARM Channel 28 Between Reactor and Fuel Pool > 1000 mR/hr AND Any Containment Challenge indication, Table C-2	CS1.2 CONTAINMENT CLOSURE established AND RPV level < TAF	CA1.2 RPV water level cannot be monitored for ≥ 15 min. (Note 1) AND UNPLANNED increase in any Table C-1 sump or tank levels due to a loss of RPV inventory	CU1.2 RPV water level cannot be monitored AND UNPLANNED increase in any Table C-1 sump or tank levels due to a loss of RPV inventory
2 Loss of Emer. AC Power	None	None	CA2 Loss of all offsite and all onsite AC power to emergency buses for 15 minutes or longer 4 5 DEF	CU2 Loss of all but one AC power source to emergency buses for 15 minutes or longer 4 5 DEF
	None	None	CA2.1 Loss of all offsite and all onsite AC power capability to Emergency 4 KV Buses E1(E3) and E2(E4) for ≥ 15 min. (Note 1)	CU2.1 AC power capability to Emergency 4 KV Buses E1(E3) and E2(E4) reduced to a single power source for ≥ 15 min. (Note 1) AND Any additional single power source failure will result in loss of all unit-specific AC power to SAFETY SYSTEMS
	None	None	CA3 Inability to maintain plant in cold shutdown 4 5	CU3 UNPLANNED increase in RCS temperature 4 5
3 RCS Temp.	None	None	CA3.1 UNPLANNED increase in RCS temperature to > 212°F for > Table C-3 duration (Note 1) OR UNPLANNED RPV pressure increase > 10 psig due to a loss of RCS cooling 4 5	CU3.1 UNPLANNED increase in RCS temperature to > 212°F due to loss of decay heat removal capability 4 5
	None	None	CA3.2 Loss of all RCS temperature and RPV level indication for ≥ 15 min. (Note 1)	CU3.2 Loss of all RCS temperature and RPV level indication for ≥ 15 min. (Note 1)
	None	None	CA4 Loss of Vital DC power for 15 minutes or longer 4 5	CU4 Loss of Vital DC power for 15 minutes or longer 4 5
4 Loss of Vital DC Power	None	None	None	CU4.1 < 105 VDC bus voltage indications on Technical Specification required 125 VDC buses for ≥ 15 min. (Note 1)
	None	None	None	CU5 Loss of all onsite or offsite communications capabilities 4 5 DEF
	None	None	None	CU5.1 Loss of all Table C-4 onsite communication methods OR Loss of all Table C-4 offsite communication methods OR Loss of all Table C-4 NRC communication methods
5 Loss of Comm.	None	None	None	None
	None	None	None	None
	None	None	None	None
6 Hazardous Event Affecting Safety Systems	None	None	CA6 Hazardous event affecting a SAFETY SYSTEM needed for the current operating mode 4 5	None
	None	None	CA6.1 The occurrence of any Table C-5 hazardous event EITHER of the following: - Event damage has caused indications of degraded performance in at least one train of a SAFETY SYSTEM needed for the current operating mode - The event has caused VISIBLE DAMAGE to a SAFETY SYSTEM component or structure needed for the current operating mode	None
	None	None	None	None

Table C-1 Sumps & Tanks	Table C-2 Containment Challenge Indications	Table C-3 RCS Reheat Duration Thresholds	Table C-4 Communication Methods																																											
<ul style="list-style-type: none"> - Drywell floor drain sump - Drywell equipment drain sump - RB floor drain sump - RB equipment drain sump - Torus - Visual observation 	<ul style="list-style-type: none"> - CONTAINMENT CLOSURE not established (Note 6) - Primary Containment hydrogen concentration > 6% - Unplanned rise in PC pressure - Exceeding one or more Secondary Containment Control Maximum Safe Operating Area Radiation Levels (OEOEP-03-SCOP Table 3) 	<table border="1"> <thead> <tr> <th>RCS Status</th> <th>Containment Closure Status</th> <th>Heat-up Duration</th> </tr> </thead> <tbody> <tr> <td>Intact</td> <td>N/A</td> <td>60 min.*</td> </tr> <tr> <td rowspan="2">Not intact</td> <td>established</td> <td>20 min.*</td> </tr> <tr> <td>not established</td> <td>0 min.</td> </tr> </tbody> </table> <p>* If an RCS heat removal system is in operation within this time frame and RCS temperature is being reduced, the EAL is not applicable.</p>	RCS Status	Containment Closure Status	Heat-up Duration	Intact	N/A	60 min.*	Not intact	established	20 min.*	not established	0 min.	<table border="1"> <thead> <tr> <th>System</th> <th>Onsite</th> <th>Offsite</th> <th>NRC</th> </tr> </thead> <tbody> <tr> <td>Public Address System</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>PBX Telephone System</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>Corporate Telephone Communications System</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>Commercial Telephones</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>Satellite Phones</td> <td></td> <td>X</td> <td>X</td> </tr> <tr> <td>Cellular Phones</td> <td></td> <td>X</td> <td>X</td> </tr> <tr> <td>NRC Emergency Telecommunications System</td> <td></td> <td></td> <td>X</td> </tr> </tbody> </table>	System	Onsite	Offsite	NRC	Public Address System	X			PBX Telephone System	X	X	X	Corporate Telephone Communications System	X	X	X	Commercial Telephones	X	X	X	Satellite Phones		X	X	Cellular Phones		X	X	NRC Emergency Telecommunications System			X
RCS Status	Containment Closure Status	Heat-up Duration																																												
Intact	N/A	60 min.*																																												
Not intact	established	20 min.*																																												
	not established	0 min.																																												
System	Onsite	Offsite	NRC																																											
Public Address System	X																																													
PBX Telephone System	X	X	X																																											
Corporate Telephone Communications System	X	X	X																																											
Commercial Telephones	X	X	X																																											
Satellite Phones		X	X																																											
Cellular Phones		X	X																																											
NRC Emergency Telecommunications System			X																																											

Notes

Note 1: The SEC should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.

Note 2: If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded the specified time limit.

Note 3: If the effluent flow past an effluent monitor is known to have stopped, indicating that the release path is isolated, the effluent monitor reading is no longer VALID for classification purposes.

Note 4: The pre-calculated effluent monitor values presented in EALs RA1.1, RS1.1 and RG1.1 should be used for emergency classification assessments until the results from a dose assessment using actual meteorology are available.

Note 5: If the equipment in the listed room or area was already inoperable or out-of-service before the event occurred, then no emergency classification is warranted.

Note 6: If CONTAINMENT CLOSURE is re-established prior to exceeding the 30-minute time limit, declaration of a General Emergency is not required.

Note 7: This EAL does not apply to routine traffic impediments such as fog, snow, ice, or vehicle breakdowns or accidents.

Note 8: A manual scram action is any operator action, or set of actions, which causes the control rods to be rapidly inserted into the core, and does not include manually driving in control rods or implementation of boron injection strategies.

Date & Time of Shutdown	
Date	Time

DOZX