			SITE AREA EMERGENCY		Unusual event			GENERAL EN					ALERT		NUSUAL EVENT	
		<ul> <li>ANY monitor reading &gt; Table R-1 "GE" column for ≥ 15 min. (Note 1)</li> <li>Do not delay declaration awaiting dose assessment results</li> <li>If dose assessment results are available, declaration should be based on dose assessment instead of radiation monitor values (see EAL RG1.2)</li> <li>RS1.1 1 2 3 4 5 D</li> <li>ANY monitor reading &gt; Table R-1 "SAE" column for ≥ 15 min. (Note 1)</li> <li>Do not delay declaration awaiting dose assessment results</li> <li>If dose assessment results are available, declaration should be based on dose assessment instead of radiation monitor values (see EAL RS1.2)</li> </ul>		ANY gaseous monitor reading > Table R-1 "Alert" column for ≥ 15 min. (Note 2)	RU1.1 1 2 3 4 5 D  ANY gaseous monitors > Table R-1 "UE" column for ≥ 60 min. (Note 2)			Loss of all offsite and all onsite AC power, Table S-1, to 4.16 KV emergency buses 2ENS*SWG101 and 2ENS*SWG103 AND EITHER:		1, to 4.16 Loss of <b>all</b> offsite 4.16 KV emerge 2ENS*SWG103	SS1.1 1 2 3  Loss of all offsite and all onsite AC power, Table S-1, to 4.16 KV emergency buses 2ENS*SWG101 and 2ENS*SWG103 for ≥ 15 min. (Note 4)		AC power capability to 4.16 KV emergency buses 2ENS*SWG101 and 2ENS*SWG103 reduced to a single power source, Table S-1, for ≥ 15 min. (Note 4)		e AC power, Table S-1, to 4.16 KV es 2ENS*SWG101 and 2ENS*SWG103	
				RA1.2 1 2 3 4 5 D	RU1.2 1 2 3 4 5 D		1 Loss of	Restoration of 4.16 KV emergency bus 2ENS*SWG101 or 2ENS*SWG103 within 4 hours is <b>not</b> likely <b>OR</b> RPV water level <b>cannot</b> be restored and maintained		SWG101 ained	2E143 3443 101 2 13 min. (Note 4)		AND ANY additional single power source failure will result in a los of all power to 4.16 KV emergency buses 2ENS*SWG101 and 2ENS*SWG103		S-1 AC Power Sources	
		radiation monitor values (see EAL NO 1.2)	radiation monitor values (see EAL No 1.2)	ANY liquid monitor > Table R-1 "Alert" column for ≥ 15 min. (Note 2)	ANY liquid monitor reading > Table R-1 "UE" column for ≥ 60 min. (Note 2)		AC Power	above -14 in. or RPV water le	evel <b>cannot</b> be def	termined			A TON THE PARTY OF	Onsite - 2	EGS*EG1 EGS*EG3 EGS*EG2 (with 2ENS*SWG102 crosstied o 2ENS*SWG101 or 2ENS*SWG103)	
				RA1.3 1 2 3 4 5 D	RU1.3 1 2 3 4 5 D		2	Name			SS2.1 1 2 3		None		eserve Transformer A eserve Transformer B	
	Offsite Rad			Confirmed sample analyses for gaseous or liquid releases indicate concentrations or release rates > 200 x ODCM limits for $\geq$ 15 min. (Note 2)	Confirmed sample analyses for gaseous or liquid releases indicate concentrations or release rates > 2 x ODCM limits for $\geq$ 60 min. (Note 2)		Loss of DC Power	None SG3.1 1 2		for ≥ 15 min. (No	< 105 VDC on <b>both</b> 2BYS*SWG002A and 2BYS*SWG002B for ≥ 15 min. (Note 4)  SS3.1 1 2		None SA3.1 1 2		ux Boiler Transformer	
	Conditions	RG1.2 1 2 3 4 5 D  Dose assessment using actual meteorology indicates doses > 1,000 mRem TEDE or 5,000 mRem thyroid CDE at or > 100 mRem TEDE or 500 mRem thyroid CDE at or > 100 mRem thyroid					3	An automatic scram fails to shut d as indicated by reactor power > 40 AND All manual actions fail to shut dow	%	indicated by read		AND Manual actions tak	m failed to shut down the reactor	nuclear instrum	D sustained positive period observed on entation	
		> 1,000 mRem TEDE or 5,000 mRem thyroid CDE at or beyond the SITE BOUNDARY	the SITE BOUNDARY	None	None		Criticality & RPS	as indicated by reactor power > 49  AND EITHER of the following ex  RPV water level cannot be r  above -39 in. or RPV water level	% xist or have occurr restored and main	switch in shutdown failed to shut down power > 4%	taken at the reactor control console wn, manual scram push buttons ar wn the reactor as indicated by reac	d ARI) ARI) successfully s	nutdown, manual scram push butto shut down the reactor as indicated %			
R		RG1.3 1 2 3 4 5 D  Field survey results indicate closed window dose rates  > 1,000 mRem/hr expected to continue for ≥ 60 min. at or	RS1.3 1 2 3 4 5 D  Field survey results indicate closed window dose rates > 100 mRem/hr expected to continue for ≥ 60 min. at or				Failure	OR Suppression pool temperatu cannot be maintained below Temperature Limit (N2-EOP-	the Heat Capacit	ure y						
Abnorm. Rad Release / Rad Effluent		beyond the SITE BOUNDARY (Note 1) OR Analyses of field survey samples indicate thyroid CDE > 5,000 mRem for 1 hr of inhalation at or beyond the SITE BOUNDARY (Note 1)  Table R-1 Effluent Monitor Classification Thresholds		None	None	9	4		None				None		2 3	
				RA2.1 1 2 3 4 5 D	RU2.1 1 2 3 4 5 D	3	Inability to Reach or Maintain Shutdown	None			None				Plant is <b>not</b> brought to required operating mode within Technical Specifications LCO required action completion time	
		Monitor     GE     SAE     ALERT     UE       SOUR Properties     Radwaste/RB Vent Effluent     5.5E+7 μCi/s     5.5E+6 μCi/s     200 x Alarm     2 x Alarm       Main Stack Effluent     1.0E+10 μCi/s     1.0E+9 μCi/s     200 x Alarm     2 x Alarm		Alarm on ANY of the following radiation monitors due to damage to irradiated fuel or loss of water level:  2RMS-RE111 2RMS-RE112 2RMS-RE113	UNPLANNED water level drop in a reactor refueling pathway as indicated by inability to restore and maintain SFP level > low water level alarm (Note 3)  AND	System Malfunct	d.				2 3 simately 75% of annunciation or inc		SA5.1 1 2 3 UNPLANNED loss of > approximately 75% of annunciating		SU5.1 1 2 3  on or UNPLANNED loss of > approximately 75% of annunciation	
	2 Onsite Rad			• 2RMS-RE113 • 2RMS-RE114 • 2RMS-RE140 • 2HVR*RE14A • 2HVR*RE14B	Area radiation monitor reading rise on ANY of the following:  • 2RMS-RE111  • 2RMS-RE112  • 2RMS-RE113  • 2RMS-RE114			Table S-2 Significant Transients  • Automatic turbine runback > 25% thermal reactor power		on all of the follo (Note 4):  • 2CEC*PNI • 2CEC*PNI	wing Control Room panels for ≥ 15 L601 L602	indication on all of min. (Note 4):  • 2CEC*PNL6 • 2CEC*PNL6	indication on all of the following Control Room panels for ≥ 15 min. (Note 4):  • 2CEC*PNL601  • 2CEC*PNL602		indication on all of the following Control Room panels for ≥ min. (Note 4):  • 2CEC*PNL601  • 2CEC*PNL602  • 2CEC*PNL603	
	Conditions & Spent Fuel Events	Service Water Effluent N/A  Liquid RadWaste Effluent N/A	N/A 200 x DRMS High (red) 2 x DRMS High (red)  N/A N/A 2 x DRMS High (red)		• 2RMS-RE140		Inst.	Electric load rejection > 25% full electrical load     Reactor scram     ECCS injection		2CEC*PNI     2CEC*PNI     AND	L851	2CEC*PNL8     2CEC*PNL8     AND EITHER:	<ul> <li>2CEC*PNL603</li> <li>2CEC*PNL851</li> <li>2CEC*PNL852</li> <li>AND EITHER: A significant transient is in progress, Table S-2</li> </ul>		L851 L852	
		Cooling Tower Blowdown N/A	N/A 200 x DRMS High (red) 2 x DRMS High (red)	A water level drop in a reactor refueling pathway that will result in irradiated fuel becoming uncovered	UNPLANNED area radiation readings rise by a factor of 1,000 over NORMAL LEVELS			Thermal power oscillations > 1	10%	AND	ndications are unavailable (Plant C	OR	y indications are unavailable (Plan	t Process		
	2	None		RA3.1 1 2 3 4 5 D  Dose rates > 15 mRem/hr in EITHER of the following areas			6 Comm.					munications System	Onsite (internal)  X  X		SU6.1 1 2 3 Loss of all Table S-3 onsite (internal) communication methods affecting the ability to perform routine operations	
	CR/CAS Rad			requiring continuous occupancy to maintain plant safety functions:  Control Room  OR	None			None			PBX (normal dial telephones)	(internal)			e S-3 offsite (external) communication ng the ability to perform offsite notifications	
				CAS HA1.1 1 2 3 4 5 D	HU1.1 1 2 3 4 5 D		7 Fuel Clad	None			Gaitronics Station radio (portable) Control Room installed satellite ENS	phones (non portable)	X X		activity > 4 μCi/gm I-131 Equivalent	
Destr		Table H-1 Safe S	Shutdown Areas	Seismic event > OBE (0.075g) as indicated by EITHER: Computer Point ERSNC02, OBE Detected OR ANY amber LED light lit at the Seismic Monitor Panel,	Seismic event identified by ANY two of the following:  Annunciator 842121 SEISMIC ACCELERATION EXCEEDED indicates seismic event detected  Confirmation of earthquake received on NMP-1 or		Degradation				RECS UHF radios		×		2 3   DRMS high (red) alarm for → 15 min. ≥	
		<ul> <li>Reactor Building (including Primary Containment)</li> <li>Control Room</li> <li>Diesel Generator Engine and Board Rooms</li> <li>Standby Switchgear and Battery Rooms</li> <li>HPCS Switchgear and Battery Rooms</li> </ul>		Response Spectrum Annunciator  AND  Earthquake confirmed by ANY of the following:  • Earthquake felt in plant	JAFNPP seismic instrumentation  • Earthquake felt in plant		8	None			None		None		eactor coolant pressure boundary	
				<ul> <li>JAFNPP seismic instrumentation</li> <li>Control Room indication of degraded performance of systems required for the safe shutdown of the plant</li> <li>HA1.2</li> <li>1</li> <li>2</li> <li>3</li> <li>4</li> <li>5</li> <li>D</li> </ul>	HU1.2 1 2 3 4 5 D		RCS Leakage							OR Identified reacto	r coolant leakage > 25 gpm	
		<ul> <li>Remote Shutdown Roc</li> <li>Control Building HVAC</li> <li>Service Water Pump R</li> </ul>	Rooms	Tornado striking  OR  Sustained high winds > 90 mph resulting in EITHER:	Tornado striking within PROTECTED AREA boundary OR Sustained high winds > 90 mph		n Product	FG1.1 1 2 3  Loss of ANY two fission product be AND	arriers	Loss or potentia	2 3 I loss of ANY two fission product ba		potential loss of EITHER Fuel Cladarrier (Table F-1)		Y potential loss of Containment barrier	
		Electrical Protection Assembly Room     PGCC Relay Room		VISIBLE DAMAGE to ANY SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within ANY Table H-1 area  OR			arrier radation	Loss or potential loss of third fission (Table F-1)	on product barrier							
		Notes  1. The ED should <b>not</b> wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time  2. The ED should <b>not</b> wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the release duration has exceeded, or will likely exceed, the applicable time. In the absence of data to the contrary, assume that the release duration has exceeded the applicable time if an ongoing release is detected and the release start time is unknown.  3. If loss of water level in the refueling pathway occurs while in Mode 4, 5 or D, consider classification under EALs CU3.1, CU3.2 or CU3.3  4. The ED should <b>not</b> wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition has exceeded, or will likely exceed, the applicable time.  5. If the equipment in the stated area was already inoperable, or out of service, before the event		Control Room indication of degraded performance of ANY SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within ANY Table H-1 area  HA1.3 1 2 3 4 5 D	HU1.3 1 2 3 4 5 D								ct Barrier Matrix			
				Internal flooding resulting in EITHER:  An electrical shock hazard that precludes access to operate or monitor ANY SAFETY-RELATED STRUCTURE,	Internal flooding that has the potential to affect ANY SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT required by Technical Specifications for the current operating mode in ANY Table H-1 area					Fuel Cla	Potential Loss	Reactor Coolan Loss	t System Barrier Potential Loss	Contair Loss	Potential Loss	
	1 Natural or			SYSTEM or COMPONENT within ANY Table H-1 area OR Control Room indication of degraded performance of ANY SAFETY-RELATED STRUCTURE, SYSTEM or COMPONENT within ANY Table H-1 area	Marketon, and	-			A	Primary Containment Flooding is required	RPV water level cannot be restored and maintained above -14 in. following depressurization of the RPV	RPV water level cannot be restored and maintained above -14 in. or RPV water level cannot be determined			Primary Containment     Flooding is required	
	Destructive Phenomena			HA1.4 1 2 3 4 5 D  Turbine failure-generated PROJECTILEs resulting in EITHER:	HU1.4 1 2 3 4 5 D  Turbine failure resulting in ANY of the following:  Casing penetration				RPV Water Level		or RPV water level cannot be determined	Primary Containment	None	None  1. Primary Containment		
			d as it will have <b>no</b> adverse impact on the ability of	VISIBLE DAMAGE to or penetration of ANY SAFETY-RELATED STRUCTURE, SYSTEM or COMPONENT within ANY Table H-1 area OR Control Room indication of degraded performance of	<ul> <li>Damage to turbine seals</li> <li>Damage to generator seals</li> </ul>				В			pressure > 1.68 psig due to RCS leakage	i dioni		2. Primary Containment a pressure > 45 psig and in rising 3. Explosive mixture exists inside Primary Containment	
				ANY SAFETY-RELATED STRUCTURE, SYSTEM or COMPONENT within ANY Table H-1 area  HA1.5	HU1.5 1 2 3 4 5 D				Primary Containment Pressure /	None	None	Ferton Priving	None	Primary Containment pressure response not consistent with LOCA conditions	(≥ 6% H <sub>2</sub> and ≥ 5% O <sub>2</sub> )  4. Suppression pool temperature and RPV pressure <b>cannot</b> be	
				Lake water level > 254 ft OR Intake water level < 233 ft  HA1.6	Lake water level > 248.2 ft  OR Intake water level < 237 ft	/ L.			Temperature			2. Dalacca anthony origin	1. UNISOLABLE primary	- M. J.	maintained below the Heat Capacity Temperature Limit (N2-EOP-PC Figure M)	
н				Vehicle crash resulting in EITHER: VISIBLE DAMAGE to ANY SAFETY-RELATED		-						3. Release pathway exists outside Primary Containment resulting from isolation failure in ANY of the following systems	system leakage outside Primary Containment as indicated by exceeding EITHER:	<ol> <li>Failure of all Primary Containment isolation valves in ANY one line to close following auto or manual initiation</li> </ol>		
Hazards & Other Condi- tions Affect-				STRUCTURE, SYSTEM or COMPONENT within ANY Table H-1 area OR Control Room indication of degraded performance of ANY SAFETY-RELATED STRUCTURE, SYSTEM or								(excluding normal process system flowpaths from an UNISOLABLE system):  • Main steam line  • RCIC steam line	RB area temperature above an isolation setpoint OR RB area radiation above	AND Direct downstream pathy outside Primary Containment and to the	vay	
				COMPONENT within ANY Table H-1 area  HA2.1	HU2.1 1 2 3 4 5 D  FIRE not extinguished within 15 min. of Control Room				С	None	None None 4.	• RWCU • Feedwater  4. RPV blowdown is required	The state of the s	environment exists  4. Intentional Primary Containment venting per EOPs	None	
ing Plant Safety	2 Fire or	None	None	resulting in EITHER: VISIBLE DAMAGE to ANY SAFETY-RELATED STRUCTURE, SYSTEM or COMPONENT within ANY Table H-1 area	notification or verification of a Control Room FIRE alarm in ANY Table H-1 area or Turbine Building (Note 4)  HU2.2 1 2 3 4 5 D	i i		Isolation	Isolation					UNISOLABLE primary system leakage outside Primary Containment as indicated by exceeding		
Haz	Explosion			Control Room indication of degraded performance of ANY SAFETY-RELATED STRUCTURE, SYSTEM or COMPONENT within ANY Table H-1 area	EXPLOSION of sufficient force to damage permanent structures or equipment within the PROTECTED AREA									EITHER:  RB area maximum safe temperature value (N2-EOP-SC Detail S)		
	3	None	None	HA3.1 1 2 3 4 5 D  Access to ANY Table H-1 area is prohibited due to toxic, corrosive, asphyxiant or flammable gases which jeopardize operation of ANY SAFETY-RELATED STRUCTURE, SYSTEM	HU3.1 1 2 3 4 5 D  Toxic, corrosive, asphyxiant or flammable gases in amounts that have or could adversely affect NORMAL PLANT									RB area radiation > 8.00E+3 mR/hr		
	Hazardous Gas		HS4.1 1 2 3 4 5 D  A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the Security Site Supervisor	or COMPONENT (Note 5)	HU3.2 1 2 3 4 5 D  Recommendation by local, county or state officials to evacuate or shelter site personnel based on an offsite event				D	<ul> <li>Drywell area radiation         ≥ 3100 R/hr (3.1 E6         mRem/hr)</li> <li>Reactor coolant activity</li> </ul>	None	<ol> <li>Drywell area radiation     ≥ 41 R/hr     (4.1 E4 mRem/hr)</li> </ol>	None	None	5. Drywell area radiation ≥ 6.0 E4 R/hr (6.0 E7 mRem/hr)	
		A HOSTILE ACTION has occurred such that plant		HA4.1 1 2 3 4 5 D  A HOSTILE ACTION is occurring or has occurred within the Owner Controlled Area as reported by the Security Site	HU4.1 1 2 3 4 5 D  A SECURITY CONDITION that does <b>not</b> involve a HOSTILE ACTION as reported by the Security Site Supervisor				Rad 4	> 300 µCi/gm I-131 Equivalent	2. ANY condition in the	6. ANY condition in the	2. ANY condition in the opinion	6. ANY condition in the opin	ion 6. ANY condition in the opinion	
	4 Security			Supervisor  OR  A validated notification from NRC of an AIRLINER attack threat within 30 min. of the site	OR A credible site-specific security threat notification OR A validated notification from NRC providing information of an				Judgment	opinion of the Emergency Director that indicates loss of the Fuel Clad barrier	opinion of the Emergency Director that indicates potential loss of the Fuel Clad barrier	opinion of the Emergency Director that indicates loss of the Reactor Coolant System barrier	of the Emergency Director that indicates potential loss of the Reactor Coolant System barrier	of the Emergency Director that indicates loss of the Containment barrier	of the Emergency Director that indicates potential loss of the Containment barrier	
		Cooling systems AND IMMINENT fuel damage is likely	Amage is likely  HS5.1 1 2 3 4 5 D HA5.1 1 2 3 4 5 D  Control Room evacuation has been initiated AND  None  None  AND  AND  And  And  And  And  And  And  And  An													
	5 Control Room	None			None	tori							P. Marine age			
	Evacuation	Control of the plant cannot be established within 15 min.  (Nete 4)  HG6.1 1 2 3 4 5 D  Other conditions exist which in the judgment of the Emergency Director 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 (1,000 mRem TEDE or 5,000 mRem thyroid CDE) offsite for more than the immediate site area  Control of the plant cannot be established within 15 min.  (Nete 4)  HS6.1 1 2 3 4 5 D  Other conditions exist which in the judgment of the Emergency Director 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 (1,000 mRem TEDE or 5,000 mRem thyroid CDE) beyond the SITE BOUNDARY		HA6.1 1 2 3 4 5 D	HU6.1 1 2 3 4 5 D	10 (10) 11)										
				Other co 1 2 3 4 5 D  Emergency Director 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	Other conditions exist which in the judgment of the Emergency Director 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											
	6			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	facility protection has been initiated. <b>No</b> releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs											
	Judgment			exposure levels (1,000 mRem TEDE or 5,000 mRem thyroid CDE)												
E		None	None	None	EU1.1 1 2 3 4 5 D  Damage to a loaded cask CONFINEMENT BOUNDARY as indicated by measured dose rates > then ANY of the following:  • 400 mRem/hr at 3 feet from the HSM surface		Catagoria	EAL Identifier  XXX.X  H, E, S, F, C) Sequential number within subcategory/classification								
ISF	SI			100 mRem/hr outside HSM door on centerli     20 mRem/hr end shield wall exterior		Emerger				in subcategory/classification if no subcategory)			11-4			
Мо	des:	1 2 Power Operation Startup Ho		Constellation Energy Nine Mile Point Nuclear Sta	tion Unit 2  EAL Matrix Unit 2  Page 1 of 2						MODE 1	, 2 or 3				
	74	""	Ay Ay	rector, Emergency Planning Date												