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PROCEDURE NUMBER: EI-1
TITLE: EMERGENCY CLASSIFICATION AND ACTIONS

TRANSMITTAL: LISTED BELOW ARE NEW/REVISED PROCEDURES WHICH MUST BE IMMEDIATELY INSERTED INTO OR DISCARDED FROM YOUR PROCEDURE MANUAL.

Action Required	Section or Description
REMOVE AND DESTROY	EI-1, R/43, ATTACHMENT 1
REPLACE WITH	EI-1, R/43, ATTACHMENT 1 COPYING CORRECTION

SIGN, DATE, AND RETURN THE ACKNOWLEDGEMENT FORM WITHIN 10 DAYS TO THE PALISADES PLANT DOCUMENT CONTROL.

SIGNATURE OR INITIALS DATE

If applicable, REMOVE ALL travelers and marked up pages in front of this procedure.

A045

SITE EMERGENCY PLAN CLASSIFICATION

ALARMS/ANNUNCIATORS

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
ALERT	Loss of most or all alarms (annunciators) in Control Room.	Observation - Modes 3, 4, 5, and 6. Example - loss of DC Panel D21-2 Ref ONP-2.3	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 Subsequent: 15, 21, 22. If Needed: None
SITE AREA EMERGENCY	Loss of most or all alarms (annunciators) in Control Room <u>AND</u> Plant transient initiated or in progress.	Observation - Modes 1 and 2 <u>OR</u> Modes 3, 4, 5, and 6 with transient in progress. Example - loss of DC Panel D21-2 Ref ONP-2.3	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15 Subsequent: 17, 21, 22 If Needed: 19, 20

SITE EMERGENCY PLAN CLASSIFICATION

COMMUNICATION LOSS

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Significant loss of offsite communication capability. NOTE: For failures of the Palisades Public Warning System, see Palisades Administrative Procedure 4.00, "Operations Organization, Responsibilities and Conduct," Section 5.5.	Loss of the Emergency Notification System (ENS) and all other phones including satellite phones that could be used to make notifications to Van Buren County, the State of Michigan and the NRC. NOTE: The availability of one phone is sufficient to inform offsite authorities of Plant problems.	Mandatory: 1, 4, 5, 7, 8, 12 Subsequent: 15, 22 If Needed: None

SITE EMERGENCY PLAN CLASSIFICATION

DRY FUEL STORAGE CASK-ISFSI

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Incident involving a loaded fuel storage cask OUTSIDE the Auxiliary Building.	Radiation level ≥ 1 rem/hr at 1 ft from a Dry Fuel Storage Cask. <u>OR</u> Radioactive contamination level 10^5 dpm/100cm ² beta-gamma or 10^3 dpm/100cm ² alpha from a Dry Fuel Storage Cask. <u>OR</u> Airborne radioactivity analysis indicating ≥ 10 times the Effluent Concentration levels from a Dry Fuel Storage Cask. (10 CFR 20, Appendix B, Table 2) <u>OR</u> SED opinion based on direct observation that containment/shielding of a Dry Fuel Storage Cask has been degraded due to an operational event (cask drop, missile impact, etc).	Mandatory: 1, 4, 5, 7, 8 Subsequent: 15, 22 If Needed: 11, 13, 14

SITE EMERGENCY PLAN CLASSIFICATION

ENGINEERED SAFETY FEATURES

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Inability to reach a required mode within Technical Specification limits.	Plant is not brought to required operating mode within Technical Specifications LCO Action Statement Limit.	Mandatory: 1, 4, 5, 7, 8 Subsequent: 15, 22 If Needed: None
ALERT	Failure of the Reactor Protection System (RPS) Instrumentation to complete or initiate an AUTOMATIC Reactor Scram once a Reactor Protection System Setpoint has been exceeded AND a Manual Scram was successful.	The Reactor Protection System (RPS) Setpoint exceeded AND the Automatic RPS actuation did NOT OCCUR AND Manual Reactor Trip from CO-2 or CO-6 was successful.	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 Subsequent: 15, 21, 22 If Needed: 12, 19
	Complete loss of any functions needed for Mode 5.	Both S/Gs are not available for PCS heat removal AND uncontrolled PCS heatup is in progress AND PCS temperature will exceed 200°F in the next hour (use actual heatup rate if available). Ref ONP-17	
SITE AREA EMERGENCY	Complete loss of heat removal capability.	Loss of Primary Coolant System and Core Heat Removal. (EOP-9.0 Heat Removal (HR-3) Safety Function NOT Met.)	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15 Subsequent: 17, 21, 22, 23 If Needed: 12, 13, 19, 20
	Failure of the RPS Instrumentation to complete or initiate an AUTOMATIC Reactor Scram and a RPS Setpoint has been exceeded AND a Manual Scram was NOT successful.	An RPS Setpoint(s) exceeded AND Automatic RPS actuation did NOT occur AND manual reactor trip from CO-2 and CO-6 was NOT successful.	
GENERAL EMERGENCY	Failure of the RPS 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.	Failure of RPS to complete an AUTOMATIC Reactor Trip AND the Manual Reactor Trip from CO-2 and CO-6 was NOT successful AND there are indications of extreme challenge to the Primary Coolant System AND Core Heat Removal. (EOP-9.0 Heat Removal (HR-3) Safety Function NOT Met.)	Mandatory: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, Subsequent: 17, 19, 21, 22, 23 If Needed: 12, 20

SITE EMERGENCY PLAN CLASSIFICATION

EVACUATION, CONTROL ROOM

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
ALERT	Evacuation of Control Room anticipated or required with control of shutdown systems established at local stations.	Observation. Ref ONP-25.2	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 Subsequent: 15, 21, 22 If Needed: 12
SITE AREA EMERGENCY	Evacuation of Control Room and control of shutdown systems not established at local stations within 15 minutes.	Observation. Ref ONP-25.2	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15 Subsequent: 17, 21, 22, 23 If Needed: 12, 13, 19, 20

SITE EMERGENCY PLAN CLASSIFICATION

FIRE

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Fire within the Plant lasting more than 10 minutes.	Observation <u>OR</u> Fire detection alarm, confirmed by observation.	Mandatory: 1, 4, 5, 7, 8, 16 Subsequent: 15, 22 If Needed: 12, 18
ALERT	Fire potentially affecting safety systems.	Fire can potentially disable equipment which will result in jeopardizing safety function(s) <u>OR</u> SED opinion. Ref ONP-25.1	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 16 Subsequent: 15, 21, 22 If Needed: 12, 18
SITE AREA EMERGENCY	Fire compromising the function of safety systems.	Fire has disabled equipment resulting in jeopardized safety function(s). Ref ONP-25.1	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15, 16 Subsequent: 17, 21, 22 If Needed: 12, 18, 19, 20

NOTE: See General Emergency classification under the Miscellaneous category for a fire which could cause massive damage to Plant systems.

SITE EMERGENCY PLAN CLASSIFICATION

FISSION PRODUCT BARRIERS/FUEL DAMAGE

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Loss or Potential Loss of CONTAINMENT BARRIER	SEE TABLE 1	Mandatory: 1, 4, 5, 7, 8 Subsequent: 15, 22 If Needed: None
ALERT	Loss or Potential Loss of FUEL CLAD BARRIER OR PCS BARRIER	SEE TABLE 1	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 Subsequent: 15, 19, 21, 22
	Fuel damage/handling accident with release of radioactivity to Containment or Auxiliary Building.* *Note: For incidents involving Dry Fuel Storage Casks outside the Auxiliary Building. See Dry Fuel Storage Cask-ISFSI classification, page 3 of 26.	Failed fuel as indicated by abnormally High Area or Process Radiation Monitors in Containment and/or Auxiliary Building; confirmed by sample analysis <u>OR</u> SED's opinion.	If Needed: 12, 13, 14

SITE EMERGENCY PLAN CLASSIFICATION

FISSION PRODUCT BARRIERS/FUEL DAMAGE

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
SITE AREA EMERGENCY	Loss or Potential Loss of any TWO BARRIERS	SEE TABLE 1	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15
	Major damage to irradiated fuel in Fuel Handling Building	Large object damages fuel or water loss below fuel level as indicated by abnormally High Area Monitors in the Auxiliary Building.	Subsequent: 13, 17, 19, 21, 22, 23 If Needed: 12, 20
GENERAL EMERGENCY	Loss of any TWO BARRIERS AND Potential Loss of THIRD BARRIER	SEE TABLE 1	Mandatory: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15 Subsequent: 17, 19, 21, 22, 23 If Needed: 12, 20

SITE EMERGENCY PLAN CLASSIFICATION

FISSION PRODUCT BARRIERS/FUEL DAMAGE TABLE 1

FUEL CLAD BARRIER	Potential Loss	PCS Inventory Reactor water level indicates < 11 inches above the bottom of the fuel alignment plate	CETs CETs indicate > 700°F		
	Loss	PCS Activity Coolant Activity > 32 µCi/gm Dose Equivalent Iodine <u>See EI-7.0</u>	CETs CETs indicate > 1200°F		Containment Activity Containment Gamma Monitor (RIA-2321 OR RIA-2322) reading > 4.0 E3 R/hr See EI-11
PCS BARRIER	Potential Loss	PCS Inventory Unisolable leak exceeding the capacity of one charging pump (40 gpm)			
	Loss	PCS Inventory Leak greater than available makeup capacity as indicated by < 25°F of PCS subcooling	PCS Inventory SGTR that results in an SIAS		
CONTAINMENT BARRIER	Potential Loss	Containment Atmosphere Pressure > 70 psia OR H ₂ conc > 4.0% OR Pressure > 4.0 psig with less than one full train of Containment Cooling Equipment operating (EOP-9.0 CA-3 safety function not met)	CETs CETs > 1200°F for more than 15 minutes OR CETs > 700°F with reactor vessel level < 11 inches above the bottom of the fuel alignment plate for more than 15 minutes	Containment Isolation A steam leak that cannot or will not be isolated by EOP Supplements 17 and 18	Containment Activity Containment Gamma Monitor (RIA-2321 or RIA-2322) reading > 2.5 E4 R/hr
	Loss	Containment Atmosphere Rapid unexplained pressure drop following initial rise OR Containment pressure or sump level response not consistent with LOCA conditions	SGTR Primary to Secondary leakrate greater than 10 gpm with a steam leak that cannot or will not be isolated by EOP Supplements 12 and 13 on affected Steam Generator	Containment Isolation Containment Isolation Valve(s) not closed following completion of EOP Supp. 6 and/or a DIRECT pathway to the environment exists See NOTE 1	

NOTE 1: 'DIRECT' pathways to the environment include release pathways through in-line charcoal filters. Pathways through interfacing liquid systems (eg, CCW, PCS Sample, Letdown, Demineralized Water, Clean Waste Receiver Tank Recirculation, Steam Generator Blowdown, Main Steam, Main Feedwater) or releases to the environment (eg, elevated readings on RIA 2326 or RIA 2327 or by radiological monitoring teams) should be evaluated to determine if they represent a 'DIRECT' pathway to the environment.

SITE EMERGENCY PLAN CLASSIFICATION

HAZARDS-GENERAL

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Aircraft crash onsite or unusual aircraft activity over facility which could affect Plant operation. NOTE: Onsite is defined as the Owner Controlled Area outside of the Protected Area, not including structures.	Observation of event <u>AND</u> SED's opinion.	Mandatory: 1, 4, 5, 7, 8 Subsequent: 15, 22 If Needed: 12, 18
	Near or onsite explosion which could affect Plant operation.	Observation of event <u>OR</u> notification from offsite authorities <u>AND</u> SED's opinion.	
	Near or onsite toxic or flammable gas which could affect Plant operation. NOTE: Refer to the Oil and Hazardous Materials Spill Prevention Plan.	Observation of event <u>OR</u> notification from offsite authorities <u>AND</u> SED's opinion.	

SITE EMERGENCY PLAN CLASSIFICATION

HAZARDS-GENERAL

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
ALERT	Aircraft crash on facility. NOTE: Facility is defined as nonvital structures inside and outside of the Protected Area.	Observation.	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 Subsequent: 15, 21, 22
	Missile impact from whatever source on facility.	Observation.	If Needed: 12, 16, 18
	Known explosion damage to facility affecting Plant operation.	Observation.	
	Entry into facility environs of uncontrolled toxic or flammable gas which does affect Plant operation. NOTE: Refer to the Oil and Hazardous Materials Spill Prevention Plan.	Observation <u>OR</u> warning from offsite authorities <u>OR</u> detection with portable instrumentation <u>AND</u> SED's opinion.	
SITE AREA EMERGENCY	Aircraft crash affecting Vital structures by impact or fire <u>AND</u> Plant not in Mode 5 or 6.	Observation.	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15
	Severe damage to equipment required for safe shutdown from missiles or explosion.	Observation.	Subsequent: 17, 21, 22, 23 If Needed: 12, 13, 16, 18, 19, 20
	Entry of uncontrolled flammable gas into Vital areas <u>OR</u> entry of uncontrolled toxic gas into Vital areas that constitute a safety problem <u>AND</u> Plant not in Mode 5 or 6.	Observation <u>OR</u> SED's opinion <u>OR</u> detection with portable instrumentation.	

SITE EMERGENCY PLAN CLASSIFICATION

MISCELLANEOUS

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	<p>Plant conditions exist that warrant increased awareness on the part of the Plant staff or state and/or local authorities.</p> <p>NOTE: For Rx trips from high PCS pressure (initiating event), see "Primary Coolant System Temperature or Pressure" category. For coolant radioactivity exceeding Technical Specifications, see "Fission Product Barriers/Fuel Damage."</p>	SED's opinion.	<p>Mandatory: 1, 4, 5, 7, 8</p> <p>Subsequent: 15, 22</p> <p>If Needed: 12</p>
ALERT	Plant conditions exist that warrant precautionary activation of Technical Support Center and placing Emergency Operations Facility and other emergency personnel on standby.	SED's opinion <u>OR</u> when 10 CFR 50.54(x) is invoked.	<p>Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11</p> <p>Subsequent: 15, 21, 22</p> <p>If Needed: 12</p>
SITE AREA EMERGENCY	Plant conditions warrant the activation of State and County Emergency Operations Centers and monitoring teams or a precautionary notification to the public near the site.	SED's opinion <u>OR</u> continued power operation outside the Plant's licensed basis, when 10 CFR 50.54(x) is invoked.	<p>Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15</p> <p>Subsequent: 17, 21, 22, 23</p> <p>If Needed: 12, 13, 19, 20</p>
GENERAL EMERGENCY	Conditions exist that make release of large amounts of radioactivity in a short time possible (eg, any core melt situation).	SED's opinion.	<p>Mandatory: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15</p> <p>Subsequent: 17, 19, 21, 22, 23</p> <p>If Needed: 12, 16, 18, 20</p>
	Any major internal or external events (eg, fires, earthquakes, substantially beyond design basis) which could cause massive common damage to Plant systems.	SED's opinion.	

SITE EMERGENCY PLAN CLASSIFICATION

NATURAL PHENOMENON

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Any earthquake felt in-Plant or detected on station seismic instrumentation which does NOT cause damage to Plant equipment or structures.	Observation (see Note ¹), or measurement (see Note ²).	Mandatory: 1, 4, 5, 7, 8 Subsequent: 15, 22
	Abnormal water levels including flood or low water or seiche.	Flood, seiche - observation of water approaching 590' level. Low water - Ultimate Heat Sink level lowers to ≤ 572' 0" (216" below Intake Structure floor level; LI-1338)	If Needed: 12
	Tornado onsite.	Observation	
ALERT	Any earthquake that exceeds operating base earthquake surface acceleration levels of 0.1G, but not greater than 0.2G; no damage to equipment required for safe shutdown.	Observation (see Note ¹), or measurement (see Note ²).	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 Subsequent: 15, 21, 22
	Flood, low water, or seiche near design basis.	Flood, seiche - observation of water above 590' level. Low water - Ultimate Heat Sink level lowers to 569' (LI-1338).	If Needed: 12, 16, 18
	Tornado striking facility. NOTE: Facility is defined as nonvital structures inside and outside of the Protected Area.	Observation	

NOTE¹: Information on seismic disturbances can be obtained by calling the National Earthquake Information Center, Denver, Colorado, at 1-303-273-8500 (normal hours), or 1-303-273-8427, or 1-303-273-8428 (off normal hours).

NOTE²: Seismic instrumentation is available onsite for post emergency assessment of earthquakes. There are 4 peak recording accelerometers located in Containment on elevations 590', 607', 625', and 649'; these accelerometers require offsite analysis. One strong motion accelerometer is located in the switchyard battery room; this accelerometer is capable of onsite PC analysis. Surveillance checks on these instruments are performed by the I&C Department.

SITE EMERGENCY PLAN CLASSIFICATION

NATURAL PHENOMENON

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
SITE AREA EMERGENCY	Any earthquake that exceeds safe shutdown earthquake surface acceleration levels or 0.2G.	Measurement. (See Note ² Page 13)	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15
	Any earthquake that is of sufficient magnitude to cause damage to equipment and structures needed to safely shut down the Plant.	Observation. (See Note ¹ Page 13)	Subsequent: 17, 21, 22
	Flood, low water, or seiche greater than design levels <u>OR</u> failure of protection of Vital equipment at lower levels.	Flood, seiche - observation of water above 594' level. Low water - loss of Ultimate Heat Sink resulting in inability to operate any Service Water Pump to provide adequate cooling to vital equipment for greater than 15 minutes. This equates to an Ultimate Heat Sink level of $\leq 565' 9"$ (LI-1338). Others - observation of equipment damage.	If Needed: 12, 13, 16, 18, 19, 20
	Tornado or sustained winds in excess of design level (ie, of sufficient magnitude to cause damage to equipment and structures needed to safely shut down the Plant).	Observation. Notification by offsite agencies.	

NOTE: For earthquakes substantially beyond Design Basis, see "Miscellaneous" category under General Emergency classification.

SITE EMERGENCY PLAN CLASSIFICATION

PLANT POWER - ELECTRICAL

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Both Station Batteries not available.	Both battery breakers open for greater than one hour <u>AND</u> EK-0548 125 DC Bus undervoltage trouble <u>NOT</u> alarming <u>AND</u> PCS temperature greater than 200°F highest T _H /T _C .	Mandatory: 1, 4, 5, 7, 8 Subsequent: 15, 22 If Needed: 12
	Loss of offsite AC power.	Loss of all qualified circuits from offsite <u>AND</u> onsite power is being supplied by diesel generator(s).	
	Loss of emergency onsite AC power.	Both Emergency Diesel Generators inoperable for greater than two hours <u>AND</u> PCS temperature is greater than 200°F highest T _H /T _C .	
ALERT	Loss of offsite <u>AND</u> onsite AC power for less than 15 minutes.	Bus 1C <u>AND</u> 1D low voltage (C-04).	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 Subsequent: 15, 21, 22 If Needed: 12
	Loss of all onsite DC power.	DC Bus D11A <u>AND</u> D21A de-energized <u>OR</u> both DC Bus voltages less than 105V. EVI-27D1 & EVI-27D2 (D-30L/D-30R)	
SITE AREA EMERGENCY	Loss of offsite <u>AND</u> onsite AC power for more than 15 minutes.	Bus 1C <u>AND</u> 1D low voltage (C-04).	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15 Subsequent: 17, 21, 22 If Needed: 12, 13, 19, 20
	Loss of all vital onsite DC power for more than 15 minutes, <u>AND</u> Plant not in Mode 5 or 6.	DC Bus D11A <u>AND</u> D21A deenergized <u>OR</u> both DC Bus voltages less than 105V. EVI-27D1 & EVI-27D2 (D-30L/D-30R)	

NOTE: The SED should direct the Engineering Support Team and Operations Support Team to evaluate the need to recommend and implement fuel oil conservation measures in the event offsite power has been lost.

SITE EMERGENCY PLAN CLASSIFICATION

PLANT POWER - ELECTRICAL

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
GENERAL EMERGENCY	Loss of offsite and onsite AC power <u>AND</u> there is indication of extreme challenge to ability to cool the core.	Bus 1C <u>AND</u> 1D low voltage (C-04) <u>AND</u> there are indications of extreme challenge to the Primary Coolant System <u>AND</u> Core Heat Removal. (EOP-9.0 Heat Removal (HR-3) Safety Function NOT met.)	Mandatory: 1, 2, 3, 4; 5, 6, 7, 8, 9, 10, 11, 13, 14, 15 Subsequent: 17, 19, 21, 22, 23 If Needed: 12, 20

NOTE: The SED should direct the Engineering Support Team and Operations Support Team to evaluate the need to recommend and implement fuel oil conservation measures in the event offsite power has been lost.

SITE EMERGENCY PLAN CLASSIFICATION

PRIMARY COOLANT SYSTEM INTEGRITY

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Unidentified or pressure boundary leakage > 10 gpm.	Calculation, <u>OR</u> implementation of Off Normal Procedure ONP-23.1, "Primary Coolant Leak," <u>OR</u> SED opinion that leak rate indications warrant activation of Emergency Plan. (See NOTE)	Mandatory: 1, 4, 5, 7, 8 Subsequent: 15, 22 If Needed: None
	Identified leakage > 25 gpm.		
	Steam Generator secondary water activity > 0.1 μ Ci/gm dose equivalent I-131.	S/G sample analysis.	
	Primary to secondary leakage through any one SG \geq 432 gallons per day (0.3 gpm) but < 40 gpm.	Calculation, <u>OR</u> implementation of Off Normal Procedure ONP-23.2, "Steam Generator Tube Leak."	
ALERT	<u>NOTE:</u> Refer to Fission Product Barrier/Fuel Damage		
SITE AREA EMERGENCY	<u>NOTE:</u> Refer to Fission Product Barrier/Fuel Damage		
GENERAL EMERGENCY	<u>NOTE:</u> Refer to Fission Product Barrier/Fuel Damage		

NOTE: Lifting of RV-2006 (Letdown Relief) as expected for Plant conditions or evolutions does not require activating the emergency plan.

SITE EMERGENCY PLAN CLASSIFICATION

PRIMARY COOLANT SYSTEM - TEMPERATURE OR PRESSURE

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Any challenge to Over-Pressure Protection System (LTOP). NOTE: Momentary PORV activations which occur during PORV Isolation Valve opening shall not be considered as a challenge to the LTOP System.	Annunciation of PORV operation. EK-1373 (SV and/or PORV OPEN)	Mandatory: 1, 4, 5, 7, 8 Subsequent: 15, 22 If Needed: None
	Reactor high-pressure trip. (Initiating event)	Annunciator (RPS alarms) <u>OR</u> event recorder.	
	Pressurizer code safety valve operation.	Observation.	
ALERT	PCS temperature < 25°F subcooled.	Observation, <u>AND</u> Plant above Mode 5. <ul style="list-style-type: none"> • SMM 0114/0124 with PCP • CETs without PCP • PPC point TCETMAR 	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 Subsequent: 15, 21, 22 If Needed: None

SITE EMERGENCY PLAN CLASSIFICATION

RADIATION LEVELS

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
ALERT	Radiation levels or airborne contamination indicates a severe degradation in control of radioactive materials.	Radiation monitors increase by a factor of 1000, confirmed <u>OR</u> unexpected Plant area iodine or particulate airborne concentrations > 1000 DAC (per 10 CFR 20, Appendix B Table 1).	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 Subsequent: 15, 21, 22 If Needed: 13, 14

SITE EMERGENCY PLAN CLASSIFICATION

RELEASES

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Short-term radiological effluent ODCM limits exceeded.	The stack monitor (RIA-2326) reaches Alert alarm setpoint for greater than one hour, confirmed by sample analysis, <u>OR</u> Liquid Waste Discharge Monitor (RIA-1049) reaches alarm setpoint and automatic discharge trip function fails. Confirmed by sample analysis.	Mandatory: 1, 4, 5, 7, 8 Subsequent: 15, 22 If Needed: 11, 14
	Significant solid or liquid waste spill outside restricted areas with threatened offsite release.	Observation confirmed by survey results <u>OR</u> SED's opinion.	Notify Rad Services to evaluate whether 40 CFR 302 notifications are necessary.
ALERT	Radiological effluent > 10 times the ODCM instantaneous release rate limit.	A valid stack monitor (RIA-2326) reading of $\geq 1.6E+5$ cpm above background for longer than one hour, <u>OR</u> Liquid Waste Discharge Monitor (RIA-1049) reaches 10 times alarm setpoint and automatic discharge trip function fails, confirmed by sample analysis.	Mandatory: 1, 2, 3, 4, 6, 7, 8, 9, 10, 11 Subsequent: 13, 14, 15, 21, 22 If Needed: 19, 20

SITE EMERGENCY PLAN CLASSIFICATION

RELEASES

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
<p>SITE AREA EMERGENCY</p>	<p>Effluent monitors detect levels corresponding to > 50 mrem/hr TEDE for ½ hour or > 500 mrem/hr TEDE for 2 minutes (or 5 times these levels to the Adult Thyroid CDE) at the site boundary for <u>adverse meteorological conditions</u>. These levels are projected based on other Plant parameters (eg, radiation level in Containment with leak rate appropriate for existing Containment pressure) or are measured in the environs. EPA Protective Action Guidelines (see Emergency Implementing Procedure EI-6.13, "Protective Action Recommendations for Offsite Populations") are projected to be exceeded outside the site boundary.</p>	<p>1. Any of the following valid Radiation Monitor readings for greater than 30 mins:</p> <ul style="list-style-type: none"> (a) RIA-2326 $\geq 1.3E+6$ CPM above background. (b) RIA-2323/RIA-2324 ≥ 215 CPM above background <u>AND</u> steam release in progress. (c) RIA-2321/RIA-2322 $\geq 5.1E+4$ rem/hr above background <u>AND</u> Containment integrity intact; <u>OR</u> <p>2. Any of the following valid Radiation Monitor readings for greater than 2 minutes:</p> <ul style="list-style-type: none"> (a) RIA-2327 ≥ 11 mrem/hr above background. (b) RIA-2323/RIA-2324 ≥ 630 CPM above background <u>AND</u> steam release in progress. (c) RIA-2321/RIA-2322 $\geq 5.1E+5$ rem/hr above background <u>AND</u> Containment integrity intact; <u>OR</u> 	<p>Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15</p> <p>Subsequent: 17, 19, 20, 21, 22, 23</p> <p>If Needed: None</p>

SITE EMERGENCY PLAN CLASSIFICATION

RELEASES

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
SITE AREA EMERGENCY (Cont'd)		3. Measured radiation levels at site boundary indicate any of the following: (a) TEDE Rate > 50 mrem/hr for 30 minutes. (b) TEDE Rate > 500 mrem/hr for 2 minutes. (c) Adult Thyroid CDE Rate > 250 mrem/hr for 30 minutes. (d) Adult Thyroid CDE Rate > 2500 mrem/hr for 2 minutes.	

SITE EMERGENCY PLAN CLASSIFICATION

RELEASES

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
<p>GENERAL EMERGENCY</p>	<p>Effluent monitors detect levels corresponding to 1 rem/hr TEDE or 5 rem/hr Adult Thyroid CDE Rate at the site boundary under <u>actual meteorological conditions</u>. These levels are projected based on other Plant parameters (eg, radiation levels in Containment with leak rate appropriate for existing Containment pressure) or are measured in the environs.</p> <p>NOTE: Refer to Emergency Implementing Procedure EI-6.13, "Protective Action Recommendations for Offsite Populations."</p>	<ol style="list-style-type: none"> 1. Any of the following Radiation Monitor readings <u>may</u> indicate a General Emergency: <ol style="list-style-type: none"> (a) RIA-2327 \geq 22 mrem/hr above background. (b) RIA-2323/RIA-2324 \geq 1260 CPM above background <u>AND</u> main steam release occurring. (c) RIA-2321/RIA-2322 \geq 1.0E+6 rem/hr above background <u>AND</u> Containment leakage within design limits; <u>OR</u> 2. Dose Projection from Emergency Implementing Procedure EI-6.0, "Offsite Dose Calculation and Recommendations for Protective Actions," indicate any of the following with <u>Existing Meteorological Conditions</u>, at or beyond the site boundary: <ol style="list-style-type: none"> (a) TEDE Rate \geq 1 rem integrated over a period of one hour. (b) Adult Thyroid CDE Rate \geq 5 rem integrated over a period of one hour. 3. Measured radiation levels at or beyond the site boundary indicate any of the following: <ol style="list-style-type: none"> (a) TEDE Rate \geq 1 rem integrated over a period of one hour. (b) Adult Thyroid CDE Rate \geq 5 rem integrated over a period of one hour. 	<p>Mandatory: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15,</p> <p>Subsequent: 17, 19, 20, 21, 22, 23</p>

SITE EMERGENCY PLAN CLASSIFICATION

SAFETY INJECTION SYSTEM

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	<p>Safety Injection initiated <u>AND</u> discharged to vessel</p> <p>NOTE: Applies to HPSI, LPSI, or SIT Injection only. For injections solely from charging pumps/BA pumps to PCS due to SIS, include as part of one hour (or four hours) nonemergency report per Palisades Administrative Procedure 4.00, "Operations Organization, Responsibilities and Conduct."</p>	<p>Annunciation <u>AND</u> flow verification. (Ref EOP Supplement 4)</p> <ul style="list-style-type: none">• FI-0307A to FI-0314A	<p>Mandatory: 1, 4, 5, 7, 8</p> <p>Subsequent: 15, 22</p> <p>If Needed: None</p>

SITE EMERGENCY PLAN CLASSIFICATION

SECONDARY SIDE

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Failure of a safety or relief valve in a safety-related system to close following reduction of applicable pressure.	Annunciation <u>AND</u> pressure indications, <u>OR</u> observation.	Mandatory: 1, 4, 5, 7, 8 Subsequent: 15, 22
	Main Steam Line/Main Feedwater Line break outside Containment which is isolated by Main Steam isolation signal (manually or auto).	Observation of isolated excess Steam Demand Event conditions.	If Needed: None
	Turbine rotating component failure causing turbine trip.	Turbine trip (other than required for normal Plant shutdown) <u>AND</u> observation of turbine malfunction or failure.	
ALERT	Main Steam Line/Main Feedwater Line break inside or outside Containment which is not isolated.	Observation of excess Steam Demand Event conditions.	Mandatory: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 Subsequent: 15, 21, 22
	Turbine failure causing casing penetration.	Observation <u>AND</u> turbine trip.	If Needed: None

NOTE: For accidents involving Main Steam Line/Main Feedwater Line breaks and failed Fuel/Steam Generator tube leaks, see "Primary Coolant System Integrity."

NOTE: For accidents involving primary to secondary leakage, see "Primary Coolant System Integrity."

SITE EMERGENCY PLAN CLASSIFICATION

SECURITY

CLASSIFICATION	EMERGENCY ACTION LEVEL	METHOD OF DETECTION	ACTIONS
UNUSUAL EVENT	Credible Security threat or attempted entry or attempted sabotage.	Security alarms <u>OR</u> observation <u>AND</u> activation of Safeguards Contingency Procedures. See <u>NOTE 1</u>	Mandatory: 1*, 4, 5, 7, 8, 12 Subsequent: 15, 22 If Needed: None
ALERT	Security threat exists that results in adversaries commandeering an area of the Plant, but not having control over shutdown capability or of any Vital areas.	Security Alarms <u>OR</u> observation <u>AND</u> activation of Safeguards Contingency Procedures. See <u>NOTE 1</u>	Mandatory: 1*, 2*, 3*, 4, 5, 7, 8, 9*, 10, 11*, 12 Subsequent: 15, 21, 22 If Needed: 15, 19
SITE AREA EMERGENCY	Physical attack on the Plant involving imminent occupancy of the Control Room, auxiliary shutdown panels, or other Vital areas.	Security alarms <u>OR</u> observation <u>AND</u> activation of Safeguards Contingency Procedures.	Mandatory: 1*, 2*, 3*, 4, 5, 7, 8, 9*, 10, 11*, 12, 14*, 15 Subsequent: 17*, 21, 22 If Needed: 13, 19, 20
GENERAL EMERGENCY	Physical attack on the Plant has resulted in unauthorized personnel occupying the Control Room or any other Vital areas.	Security alarms <u>OR</u> observation <u>AND</u> activation of Safeguards Contingency Procedures.	Mandatory: 1*, 2*, 3*, 4, 5, 6, 7, 8*, 9*, 10, 11*, 12, 13, 14*, 15 Subsequent: 17*, 21, 22, 23 If Needed: 16, 18, 19, 20

NOTE 1: Refer to Emergency Implementing Procedure EI-1.1, "Emergency Response To Credible Security Threats," for direction regarding declaration of, and response to, "credible" security threats as determined by the NMC Director of Security, Palisades Security Manager, or the Palisades Security Shift Leader.

*Performance of this action may be delayed until the safety of personnel is assured.