		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	UNUSUAL EVENT			GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	UNUSUAL EVENT
	Offsite Rad Conditions	RG1. Offsite Dose Resulting from an Actual or Immirrent Release of Gaseous Radioactivity Exceeds 1000 mRem TEDE or 5000 mRem Thyroid CDE for the Actual or Projected Duration of the Release Using Actual Meteorology  RG1.1	Gaseous Radioactivity Exceeds 100 milkem TEDE or 500 mRem Thyroid CDE for the Actual or Projected Duration of the Release    RS1.1	RA1 Any UNPLANNED Release of Gisseous or Liquid Radioactivity to the Environment that Exceeds 200 Times the Offsite Dose Calculation Manuel Specification for 15 Minutes or Longer    RA1.1	RU1. Any UNPLANNED Release of Gateous or Liquid Radioartivity to the Environment that Exceeds Two Times the Offsite Dose Calculation Manual Specification for 60 Minutes or Longer  RU1.1		Loss of Power	SG1 Prolonged Loss of All Offsite Power and Prolonged Loss of All Onsite AC Power to Essential Buses  SG1.1 1 2 3 4 Loss of all offsite power to Safeguards Buses 15(25) and 16(26) AND  Failure of all emergency diesel generators to supply power to Safeguards Buses 15(25) and 16(26) AND  Either of the following: (a or b)  a. Restoration of at least one Safeguards Bus within 4 hours is not likely  OR  b. Continuing degradation of core cooling based on Fission Product Barrier monitoring as indicated by conditions that require entry into Core Cooling-RED or	SS1 Loss of All Offsite Power and Loss of All Onsite AC Power to Essential Buses  SS1.1	SA5 AC power capability to essential buses reduced to a single power source for greater than 15 minutes such that any additional single failure would result in station blackout  SA5.1 1 2 3 4 A  AC power capability to Safeguards Buses 15(25) and 16(26) reduced to only one of the following sources for GREATER THAN 15 minutes  - CT-11  - CT-12  - 1RY  - 2RY  - Emergency Diesels D1 (D5) and D2 (D6)  AND  Any additional single failure will result in station blackout	SU1 Loss of All Offsite Power to Essential Buses for GREATER THAN 15 Minutes  SU1.1 1 2 3 4 Loss of all offsite power to both Buses 15(25) and 16(26) for GREATER THAN 15 minutes AND  At least two emergency generators are supplying power to emergency busses
Abnorm Rad Releas	ial	RG1.3 1 2 3 4 5 6 DEF  Field survey results indicate closed window dose rates exceeding 1000 mR/hr expected to continue for more than one hour, at or beyond site boundary  OR  Analyses of field survey samples indicate thyroid CDE of 5000 mRem for one hour of inhalation, at or beyond site boundary	RS1.3 1 2 3 4 5 6 DEF  Field survey results indicate closed window dose rates exceeding 100 mR/hr expected to continue for more than one hour, at or beyond the site boundary;  OR  Analyses of field survey samples indicate thyroid CDE of 500 mRem for one hour of inhalation, at or beyond the site boundary	RA2 Damage to irradiated Fuel or Loss of Water Level that Has or Will Result in the Uncovering of Irradiated Fuel Outside the Reactor Vessel  RA2.1 1 2 3 4 5 6 DEF  A VALID alarm or reading on one or more of the following radiation monitors:  R 25 or R-31 SFP Air Monitor  R 5 Fuel Handling Area Monitor reading (10 mR/hr)  R 28 New Fuel Pool Criticality Area Monitor (10 mR/hr)	RU2 Unexpected increase in Plant Radiation  RU2.1		RPS Failure	ORANGE path  SG2 Failure of the Reactor Protection System to Complete an Automatic Trip and Mariual Trip was NOT Successful and There is Indication of an Extreme Challenge to the Ability to Cool the Core  SG2.1 1 2 Indication(s) exist that automatic and manual trip were NOT successful in reducing power to LESS THAN 5% AND Either of the following: (a or b)  a. Core cooling is extremely challenged as indicated by conditions that require entry into Core Cooling - RED path  OR  b. Heat removal is extremely challenged as indicated by conditions that require entry into Heat Sink - RED path	Loss of all Safeguards DC power based on LESS THAN 112 VDC on 125VDC Panel 11(21) and Panel 12(22) for GREATER THAN 15 minutes  SS2 Failure of Reactor Protection System Instrumentation to Complete or Initiate an Automatic Reactor Trip Once a Reactor Protection System Setpoint Has Been Exceeded and Manual Trip Was NOT Successful SS2.1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	Initiate an Automatic Reactor Trip Once a Reactor Protection System	
Rad Effluer				- R-26 New Tuen Foot Criticality Area Windows (10 IniRVIII) - 1(2) R-11 Ctmt/SBV Ari Particulate Monitor - 1(2) R-12 Ctmt/SBV Radio Gas Monitor - 1(2) R-2 Containment Vessel Area Monitor (50 mR/hr)  RA2.2	feet elevation) AND Any UNPLANNED VALID Area Radiation Monitor reading increases as indicated by: R-5 Fuel Handling Area Monitor reading R-28 New Fuel Pool Criticality Area Monitor (2) R-2 Containment Vessel Area Monitor Other Portable Area Radiation Monitoring Instrumentation		Inability to Reach or Maintain Shutdown Conditions	None	SS4 Complete Loss of Heat Removal Capability  SS4.1 1 2 3 4 Loss of core cooling and heat sink as indicated by conditions that require entry into: a. Core Cooling - RED path.  AND b. Heat Sink - RED path.	None	SU2 hability to Reach Required Shutdown Within Technical Specification Limits  SU2.1 1 2 3 4 Plant is not brought to required operating mode within Technical Specifications LCO Action Statement Time
		None	None	RA3. Release of Radioactive Material or Increases in Radiation Levels Within the Facility That Impedes Operation of Systems Required to Maintain Safe Operations or to Establish or Maintain Cold Shutdown  RA3.1		System Malfunct.	Inst. / Comm.	None	SS6. Inability to Monitor a SIGNIFICANT TRANSIENT in Progress  SS6.1 1 2 3 4  Loss of most or all annunciators or indicators associated with safety systems  - Main Control Boards A, B-1(2), C-1(2), D-1(2), E-1(2), F-1(2), G-1(2) NIS Racks I, III, III, IV, and ERCS Alarms AND  SIGNIFICANT TRANSIENT in progress.  AND  Compensatory non-alarming indications are unavailable.  AND  Indications needed to monitor the ability to shut down the reactor, maintain the core cooled, maintain the reactor coolant system intact, and maintain containment intact are unavailable	SA4 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  SA4.1 1 2 3 4 UNPLANNED loss of most or all annunciators or indicators associated with safety systems for GREATER THAN 15 minutes  - Main Control Boards A, B-1(2), C-1(2), D-1(2), E-1(2), F-1(2), G-1(2) NIS Racks I, II, III, IV, and ERCS Alarms AND  Either of the following: (a or b)  a. A SIGNIFICANT TRANSIENT is in progress.  OR  b. Compensatory non-alarming indications are unavailable	SU3. UNPLANNED Loss of Most or All Safety System Annunciation or Indication in The Control Room for Greater Than 15 Minutes  SU3.1
		Draft G 10-17 For Review O		□ HA1.1	HU1 Natural and Destructive Phenomena Affecting the PROTECTED AREA  HU1.1		Fuel Clad Degradation	None	None	None	Loss of all Table C-2 offsite communications capability  SU4. Fuel Clad Degradation  SU4.1
	Natural & Destructive Phenonenon	ronkeview o		systems (Table H-1)  HA1.3  1  2  3  4  5  6  DEF  Vehicle crash within PROTECTED AREA boundary and resulting in VISIBLE DAMAGE to any of the following plant structures or equipment therein or Control Room indication of degraded performance of those systems (Table H-1)  HA1.4  1  2  3  4  5  6  DEF  Turbine failure-generated missiles result in any VISIBLE	Vehicle crash into plant structures or systems within PROTECTED AREA boundary  DHU1.4		RCS Leakage	None	None	None	SU5. RCS Leakage  SU5.1 1 2 3 4  Unidentified or pressure boundary leakage GREATER THAN 10 gpm  SU5.2 1 2 3 4  Identified leakage GREATER THAN 25 gpm
		None	None	DAMAGE to or penetration of any of the following plant areas (Table H-1)  HA1.5 1 2 3 4 5 6 DEF  Uncontrolled flooding in any Table H-1 area of the plant that rought in deproduction of the plant that the position of the plant that the pl	Uncontrolled flooding in following areas of the plant that has the potential to affect safety related equipment needed for the current operating mode (Table H-1)		Inadvertent Criticality	None	None	None	SU8. Inadvertent Criticality  SU8.1 3 4 4 An UNPLANNED sustained positive startup rate observed on nuclear instrumentation
				the control room or that creates industrial safety hazards (e.g. electric shock) that precludes access necessary to operate or monitor safety equipment  HA1.6  1  2  3  4  5  6  DEF  High or low river water level occurrences affecting the PROTECTED AREA as indicated by: River intake level GREATER THAN 698 ft MSL  OR  River intake level LESS THAN 666.5 ft MSL.	, □HU1.7		Cask Confine.				EU1 Damage to a loaded cask CONFINEMENT BOUNDARY  EU1.1  Natural phenomena events affecting a loaded cask CONFINEMENT BOUNDARY as indicated by VISIBLE DAMAGE to the cask - earthquake - tornado (and tornado missile) - flood - lightning - snow/ice
	Fire or Explosion	None	None	HA2 FIRE or EXPLOSION Affecting the Operability of Plant Safety Systems Required to Establish or Maintain Safe Shufdown  HA2.1	with or immediately adjacent) to any Table H-1 area not extinguished within 15 minutes of control room notification or verification of a control room alarm	ISFSI Events	Boundary	None	None	None	□ EU1.2  Accident conditions affecting a loaded cask CONFINEMENT BOUNDARY as indicated by VISIBLE DAMAGE to the cask - dropped cask - tipped over cask - cask burial - explosion - fire □ EU1.3
	Toxic and Flammable Gas	None	None	H-1 areas in concentrations that may result in an atmosphere IMMEDIATELY DANGEROUS TO LIFE AND HEALTH (IDLH)  HA3.2  1 2 3 4 5 6 DEF  Report or detection of gases in concentration GREATER	HU3.2 1 2 3 4 5 6 DEF  Report by Local, County or State Officials for evacuation or		Security	None    FG1	None	None	Any condition in the opinion of the Emergency Director that indicates loss of loaded fuel storage cask CONFINEMENT BOUNDARY  EU2 Confirmed Securify Event with potential loss of level of safety of the ISFS!  EU2.1  Security Contingency Event as determined from PINGP Security Plan and reported by the PINGP security shift supervision  Fu1 1 2 3 4
Hazaro	ls	HG1 Security Event Resulting in Loss Of Physical Control of the Facility	HS1 Confirmed Security Event in a Plant VITAL AREA	THAN the LOWER FLÄMMABILITY LIMIT within or contiguous to Table H-1 areas  HA4 Confirmed Security Event in a Plent PROTECTED AREA	sheltering of site personnel based on an offsite event  HU4 Confirmed Security Event Which Indicates a Potential Degradation in the Level of Safety of the Plant			Loss of ANY Two Barriers AND Loss or Potential Loss of Third Barrier (Table F-1)	Loss or Potential Loss of ANY Two Barriers (Table F-1)	ANY Loss or ANY Potential Loss of EITHER Fuel Clad OR RCS (Table F-1)	ANY Loss or ANY Potential Loss of Containment (Table F-1)
	Security	HG1.1 1 2 3 4 5 6 DEF  A HOSTILE FORCE has taken control of plant equipment such that plant personnel are unable to operate equipment required to maintain safety functions as indicated by loss of physical control of EITHER:  A VITAL AREA such that operation of equipment required for safe shutdown is lost  OR  Spent fuel pool cooling systems if imminent fuel damage is likely (e.g., freshly off-loaded reactor core in the pool)	HS1.1 1 2 3 4 5 6 DEF  INTRUSION into the plant VITAL AREA by a HOSTILE FORCE  HS1.2 1 2 3 4 5 6 DEF  Security Shift Supervision reports ANY of the following:  - A security event that results in the loss of control of ANY VITAL AREAS (other than Control Room)  - Imminent loss of physical control of the facility (remote shutdown capability) due to a security event	HA4.1 1 2 3 4 5 6 DEF  INTRUSION into the plant PROTECTED AREA by a HOSTILE FORCE  HA4.2 1 2 3 4 5 6 DEF  Security Shift Supervision reports any of the following: - SABATOGE device discovered in the plant PROTECTED AREA - Standoff attack on the PROTECTED AREA by a HOSTILE FORCE (i.e., Sniper)	HU4.1 1 2 3 4 5 6 DEF  Security Shift Supervision reports ANY of the following:  - Suspected SABOTAGE device discovered within the plant PROTECTED AREA  - Suspected SABOTAGE device discovered outside the PROTECTED AREA or in the plant switchyard  - Confirmed tampering with safety-related equipment  - A HOSTAGE/EXTORTION situation that disrupts NORMAL PLANT OPERATIONS  - CIVIL DISTURBANCE or STRIKE ACTION which					NOTE fy the event. Also an event for multiple events could occur which relie thresholds are exceeded	
		a may (aga namy an access access access and a pass,	A confirmed SABOTAGE device discovered in a VITAL AREA	ANY security event of increasing severity that persists for > 30 min.:     Credible BOMB threats     HOSTAGE/EXTORTION	disrupts NORMAL PLANT OPERATIONS  Internal disturbance that is not a short lived or that is not a harmless outburst involving ANY individuals within the PROTECTED AREA  Malevolent use of a vehicle outside the PROTECTED			Fuel Cladding Barrier	RCS Barrier		ontainment Barrier
			HANCE LINE WANTED HAVE A CONTRACT OF THE PARTY OF THE PAR	Suspicious FIRE or EXPLOSION     Significant Security System Hardware Failure     Loss of Guard Post Contact	AREA which disrupts NORMAL PLANT OPERATIONS  HU4.2		Product	Loss Potential Loss  1. Critical Safety Function Status Conditions requiring  1. Critical Safety Function Status Conditions requiring entre	☐ 1. Critical Safety Function Status Not Applicable  Onditions re Integrity-Red	Pential Loss  Loss  Leunction Status Quiring entry into RCS  Loss  1. Critical Safety Function Status Not Applicable	□ Potential Loss □ 1. Critical Safety Function Status Conditions requiring entry into Containment- Red
	Control Room Evacuation	None	HS2 Control Room Evacuation Has Been hitiated and Plant Control Cannot Be Established  HS2.1	HA5.1 1 2 3 4 5 6 DEF  Entry into 1(2)C1.3 AOP-1 Shutdown from Outside the Control Room or F-5 Appendix B Control Room Evacuation (Fire) for control room evacuation	None			entry into Core-Cooling Red into Core Cooling-Orang OR Conditions requiring entrinto Heat Sink-Red	OR Conditions re Sink-Red  2. RCS Leak Rate GREATER THAN available makeup capacity as indicated by a loss of RCS subcooling LESS THAN OR EQUAL TO 20 [35]* degree F  3. SG Tube Rupture  OR Conditions re Sink-Red  2. RCS Leak Ra Unisolable lea  3. SG Tube Rupture	Containment pressure or sump lever not consistent with LOCA condition consistent with LOCA condition consistent with LOCA conditions the containment pressure or sump lever not consistent with LOCA conditions the containment pressure or sump lever not consistent with LOCA conditions and containment pressure or sump lever not consistent with LOCA conditions and containment pressure or sump lever not consistent with LOCA conditions and containment pressure or sump lever not consistent with LOCA conditions and containment pressure or sump lever not consistent with LOCA conditions and containment pressure or sump lever not consistent with LOCA conditions and containment pressure or sump lever not consistent with LOCA conditions and containment pressure or sump lever not consistent with LOCA conditions and containment pressure or sump lever not consistent with LOCA conditions and containment pressure or sump lever not consistent with LOCA conditions and containment pressure or sump lever not contain the containment of containment pressure or containmen	OR Containment hydrogen concentration GREATER THAN OR EQUAL TO 6% OR Containment pressure GREATER THAN 23 psig with LESS THAN one full train of depressurization equipment operating  3 Core Exit Thermocouple Readings
	Emergency Director Judgment	HG2 Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of General Emergency  HG2.1	HS3 Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of Side Area Emergency  HS3.1	HAS Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of an Alert  HA6.1	HUS Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of a UE  HUS.1			Readings GREATER THAN 1200 degree F  4. Reactor Vessel Water Level Not Applicable  4. Reactor Vessel Water Level Not Applicable  4. Reactor Vessel Water Level Level LESS THAN: - 40% RVLIS Full Ran; (no RCPs) - 32% RVLIS Dynamic Head Range (1 RCP) (20% DVLIS Function	Containment rad monitor 1(2)R-48 or 49 reading GREATER THAN 7 R/hr  30 5. Other Indications Not Applicable  3 6. Emergency Director Judgment  3 6. Emergency Director Judgment  3 6. Emergency Director Judgment	Radiation Monitoring e  Ons e  4. SG Secondary Side Release with. Leakage	
1 1 2 F F F F	(2) R-22* Shield R-30* & 1R-37* I R-30* & 2R-37* I k-35* Radwaste E R-25* & R-31* Spi iquid k-18* Waste Efflu R-19*SG Blowdov	Monitor GE SAE  Inge Stack Gas Monitor Building Vent Rad Monitor Building Vent Rad Monitor Building Vent Rad Monitors Building Vent Rad Monitor Building Vent Rad Monitors Building Vent Rad Monitor Building Vent Rad Mon	olds Alert UE Area	X X X X X X X X X X X X X X X X X X X	Plant Paging System     Plant Telephone Network      Table C-2 Offsite Communications Systems     Plant Telephone Network			- 62% RVLIS Dynamic Head Range (2 RCP: - 62% RVLIS Dynamic Head Range (2 RCP: - 62% RVLIS Dynamic Head Range (2 RCP: - 6 Ontainment Radiation Monitoring Not Applicable - 6 Other Indications RCS letdown line radiation 1(2)R-9 GREATER THAN 10 R/hr - 7 Emergency Director Judgment Any condition in the opinion of the Emergency Director that indicates Loss or Potential Loss of the Fuel Clad Barrier - 62% RVLIS Dynamic Head Range (2 RCP: - 6 Ontainment Radiation Monitoring Not Applicable - 6 Other Indications Not Applicable - 7 Emergency Director Judgment Any condition in the opinion of the Emergency Director that indicates Loss or Potential Loss of the Fuel Clad Barrier	Any condition in the opinion of the Emergency Director that indicates Emergency D	In the opinion of the intector that indicates attial Loss of the RCS  RUPTURED S/G is also FAULTED containment OR Primary-to-Secondary leakrate GF THAN 10 gpm with nonisolable ste from affected S/G to the environment isolation Valves. Status After Isolation Containment isolation Valves Status After Isolation Containment isolation Valves) not AND Downstream pathway to the environment isolation  6. Significant Radioactive Inventory in Containment Not Applicable  7. Other Indications Not Applicable 6. Emergency Director Judgment Any condition in the opinion of the Emergency Director that indicates Potential Loss of the Containment	REATER earn release ent  ir CNMT  5. CNMT Isolation Valves Status After CNMT Isolation Not Applicable  6. Significant Radioactive Inventory in Containment Containment Containment rad monitor 1(2)R-48 or 49 reading GREATER THAN 800 R/hr  7. Other Indications Not Applicable  6. Emergency Director Judament Any condition in the opinion of the Emergenc Director that indicates Loss or Potential Loss
M	lodes:	1 2 3 Power Operation Startup Hot Sta	andby Hot Shutdown Cold Shutdown Re	6 DEF stueling Defueled Approved:	Prairie Island Nuclear Generating Plant Emergency Action Level Matrix PINGP 1576, Rev. Draft D Retention: Life of Plant Doc. Type: 1.043			НО	CONDITIONS	(RCS > 200°F)	1-02