RECOGNITION AND CLASSIFICATION OF EMERGENCY CONDITIONS

CONTROLLED BVPS UNIT 1

EFFECTIVE INDEX

Issue 8 Rev.	0 1 2 3 4 5 6 7	OSC Approved OSC Approved OSC Approved OSC Approved OSC Approved Non-Safety Related OSC Approved OSC Approved	3-12-87 8-13-87 10-8-87 2-9-88 2-9-89 3-15-89 4-18-89 4-12-90
Issue 9 Rev.	0	Non-Intent Revision	10-9-90
	1	OSC Approved	4-4-91
	2	Non-Intent Revision	12-29-92
	3	OSC Approved	1-27-93
Rev.	5	OSC Approved	12-9-93
	6	OSC Approved	10-7-94
	7	OSC Approved	7-22-98
	8	Non-Intent Revision	12-31-99
Rev.	0	OSC Approved	4-17-01
Rev.	1	Non-Intent Revision	12-12-01
Rev.	2	Simple Change	8-28-02

TABLE OF CONTENTS

- A. Purpose
- B. References
- C. Responsibilities
- D. Action Levels/Precautions
- E. Procedure
- F. Final Condition
- G. Attachments

A. PURPOSE

- 1.0 This procedure describes the immediate actions to be taken to recognize and classify an emergency condition.
- 2.0 This procedure identifies the four emergency classifications and emergency action levels.
- 3.0 Reporting requirements for non-emergency abnormal events are provided.

B. REFERENCES

- 1.0 Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures.
- 2.0 Title 10, Code of Federal Regulations Part 50, Appendix E.
- 3.0 NUREG-0654/FEMA-REP-1, <u>Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants</u>
- 4.0 Beaver Valley Power Station Operating Manual
- 5.0 NUMARC/NESP-007, Methodology for Development of Emergency Action Levels
- 6.0 ERS-SFL-91-041-REV 1 (U1/U2 Containment Monitor Readings due to LOCA's with various Source Terms).
- 7.0 Condition Report #992522
- 8.0 Condition Report #991327-1
- 9.0 Unit 1 Technical Specification Amendment 204 and Unit 2 Technical Specification Amendment 101.
- 10.0 EPPOS #2 "Emergency Preparedness Position (EPPOS) on Timeliness of Classification of Emergency Conditions".
- 11.0 NEI 99-02 "Regulatory Assessment Performance Indicator Guideline"
- 12.0 Condition Report #00-3939
- 13.0 Condition Report #99-1234
- 14.0 Condition Report #02-02125-02
- 15.0 Condition Report #02-05069
- 16.0 Unit 1 Technical Specification Amendment 244

- 17.0 Calculation Package No. ERS-ATL-93-021
- 18.0 ODCM Procedure 1/2-ODC-2.01
- 19.0 Calculation Package No. ERS-HHM-87-014
- 20.0 Calculation Package No. ERS-SFL-86-005
- 21.0 Calculation Package No. ERS-SFL-99-014

C. <u>RESPONSIBILITY</u>

The Emergency Director (Shift Manager, until properly relieved by a designated alternate) has the responsibility and authority for the performance of the actions prescribed in this procedure.

D. <u>ACTION LEVELS/PRECAUTIONS/GUIDANCE</u>

1.0 ACTION LEVELS

- 1.1 An off-normal event has occurred.
- 1.2 An action step in a plant operating or emergency operating procedure refers to this procedure for classification of the indicated plant condition.

2.0 PRECAUTIONS

- 2.1 The Emergency Director must review all applicable EALs to ensure that the event is properly classified since a given INDICATOR may be associated with more than one CRITERION. A particular INDICATOR omitted from the fission product barrier matrix may be addressed as an event-based EAL in one of the other tabs. Event-based EALs may escalate to the fission product barrier matrix. The Emergency Director may need to consider related events (e.g., fire and explosion) or the possible consequences of the event (e.g., fire in an MCC resulting in loss of AC) in classifying an event.
- 2.2 Continued surveillance and assessment of plant conditions are necessary to ensure that the emergency classification is appropriately revised as conditions change, or as more definitive information is obtained.
- 2.3 If there is any doubt with regard to assessment of a particular EAL, the EAL Basis Document (i.e., Chapter 4 of the EPP) entry for that EAL can be reviewed. Classifications shall be consistent with the fundamental definitions of the four emergency classifications (tabulated in Tab 4.7).
- 2.4 The Emergency Director shall take whatever mitigative or restoration actions are necessary to protect public health and safety. The Emergency Director shall not reject courses of action solely on the basis that the action would result in escalation of the emergency classification.

3.0 GUIDANCE

- 3.1 Structure of the EALs
 - 3.1.1 There are two types of Emergency Action Levels included in this procedure:
 - 3.1.1.1 Barrier-Based EALs: These EALs address conditions that represent potential losses, or losses, of one or more of the Fuel Clad, RCS, or Containment fission product barriers. INDICATORs of these conditions include CRITICAL SAFETY FUNCTION status, fundamental indications such as subcooling or reactor vessel water level, or auxiliary indications such as containment radiation monitor readings. Classifications are based on the number of barriers lost or potentially lost.
 - 3.1.1.2 Event-Based EALs: These EALs address discrete conditions or events that are generally precursors to fission product barrier degradation, or are otherwise degradations in the level of safety of the plant. Events may be external (e.g., severe weather, earthquakes, loss of offsite power) internal (e.g., fires, explosions, instrumentation failure) or may involve radioactivity releases.
 - 3.1.2 The EALs are grouped by recognition category as follows:
 - Tab 1 Fission Product Barrier Matrix
 - Tab 2 System Degradation
 - Tab 3 Loss of Power
 - Tab 4 Hazards and ED Judgement
 - Tab 5 Destructive Phenomena
 - Tab 6 Shutdown Systems Degradation
 - Tab 7 Radiological
 - 3.1.3 Each of the EAL tabs includes one or more columns that address one initiating condition (e.g., fires). Each column provides EALs for each of the four emergency classifications, as applicable. A notation adjacent to each EAL identifies the plant operating mode(s) for which the EAL is applicable.

- 3.1.4 Each EAL is comprised of a CRITERION, printed in bold type, and one or more INDICATORs. The purpose of each is as follows:
 - 3.1.4.1 CRITERION: identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration) All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.
 - 3.1.4.2 INDICATOR: is available via instrumentation. calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Upon occurrence of one or more indicators, the Emergency Director performs assessment against the criterion. Depending on the particular condition, this assessment may be as simple as a review of the criterion, an instrument channel check, or a detailed calculation as in the case of a radioactivity release.
 - 3.1.4.3 Inherent in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.
 - 3.1.4.4 The INDICATORs were selected with the objective of providing unambiguous guidance to assist with assessment of the CRITERION. There may be other INDICATORs not envisioned by the writers of this procedure that, in the judgment of the Emergency Director, correspond to the CRITERION. In these cases, the Emergency Director should base the declaration on engineering judgment, using the supplied INDICATORs as examples of the severity of the condition.

3.2 Common Plant Conditions

- 3.2.1 <u>IF</u> an event occurs such that both reactor units are affected, e.g., tornado, toxic gas offsite, etc., <u>THEN</u> the senior Shift Manager shall make the appropriate classification and assume the role of Emergency Director.
- 3.2.2 <u>IF</u> the common plant condition results in a higher emergency classification at one reactor unit, <u>THEN</u> the Shift Manager from that unit shall make the appropriate classification and assume the role of Emergency Director.

3.3 Mode Applicability

- 3.3.1 The plant operating mode that existed at the time that the event occurred, prior to any protective system or operator action initiated in response to the condition, is compared to the mode applicability of the EALs.
- 3.3.2 <u>IF</u> an event occurs, and a lower or higher plant operating mode is reached before the classification can be made, <u>THEN</u> the classification shall be based on the mode that existed at the time that the event occurred.
- 3.3.3 The fission product barrier matrix is applicable only to those events that occur at mode 4 or higher. An event that occurs in modes 5 or 6 shall not be classified using the fission product barrier matrix, even if mode 4 is entered due to subsequent heatup. In these cases, Tab 6, Shutdown Systems Degradation, shall be used for classification.

3.4 Transient Events

- 3.4.1 For some EALs the existence of the event, without regard to duration, is sufficient to warrant classification. In these cases, the appropriate emergency classification is declared as soon as the Emergency Director assessment concludes that the CRITERION is met.
- 3.4.2 Some EALs specify a duration of occurrence. For these EALs the classification is made when Emergency Director assessment concludes that the specified duration is exceeded or will be exceeded (i.e., condition can not be reasonably rectified before the duration elapses), whichever is sooner.

- 3.4.3 <u>IF</u> a plant condition meeting an EAL CRITERION is rectified before the specified duration time is exceeded, <u>THEN</u> the event is <u>NOT</u> classified by that EAL. Lower severity EALs, if any, shall be reviewed for possible applicability in these cases.
- 3.4.4 IF a plant condition meeting an EAL CRITERION is NOT classified at the time of occurrence, but is identified well after the condition has occurred (e.g., as a result of routine log or record review) AND the condition no longer exists, THEN an emergency shall NOT be declared. However, reporting under 10 CFR 50.72 may be required. Such a condition could occur, for example, if a followup evaluation of an abnormal condition uncovers evidence that the condition was more severe than earlier believed.
- 3.4.5 IF an emergency classification was warranted, but the plant condition has been rectified (such that the CRITERION is no longer met) prior to declaration and notification, <u>THEN</u> the following guidance applies:
 - 3.4.5.1 For transient events that would have been declared as UNUSUAL EVENTS, no emergency is declared. However, the event shall be reported to those local, state, and Federal agencies designated to receive the initial notification form. These agencies shall be told that the UNUSUAL EVENT condition was rectified upon detection and no emergency is being declared.
 - 3.4.5.2 For transient events that would have been declared as an ALERT, SITE AREA EMERGENCY, or GENERAL EMERGENCY, the event shall be declared and the emergency response organization activated. The EAL CRITERIA for these events has been set at a threshold that warrants declaration even if the initiating condition has been rectified. Termination can occur when the criteria of EPP/IP-6.2, Termination of the Emergency and Recovery can be satisified.

3.5 Declaration Timing and Assessment

Emergency conditions shall be classified as soon as the Emergency Director assessment of the INDICATORs shows that the CRITERION is met. IF the EAL specifies a duration, THEN the event shall be declared as soon as it is determined that the condition cannot be corrected within the specified period. In either case, the assessment time starts from the indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

- 3.5.1 The assessment time is limited to 15 minutes, except as follows:
 - 3.5.1.1 <u>IF</u> the EAL specifies a duration (e.g., release exceeds 2x T/S for one hour), <u>THEN</u> the assessment time runs concurrently with the required duration <u>AND</u> is the same length (e.g., in this example, one hour).
 - 3.5.1.2 The assessment time and any required duration are <u>NOT</u> additive.
- 3.5.2 <u>IF</u> the assessment cannot be completed within the specified period, <u>THEN</u> the event must be declared on the basis of INDICATORs that cannot be reasonably discounted.

3.6 Bases

3.6.1 Chapter 4 of the BVPS EPP provides the bases for these EALs. The bases can be used for guidance to assist the Emergency Director in classifying events for which the classification is not immediately apparent.

3.7 Defined Terms

3.7.1 In the EALs, words written in bold uppercase letters are defined terms having specific meanings as they relate to this procedure. Definitions of these terms are provided on the reverse side of most pages in the EAL section of this procedure. Such terms shall be interpreted as provided in the definitions.

E. PROCEDURE

- 1.0 DETERMINE OPERATING MODE THAT EXISTED AT THE TIME THAT THE EVENT OCCURRED PRIOR TO ANY PROTECTION SYSTEM OR OPERATOR ACTION INITIATED IN RESPONSE TO THE EVENT.
- 2.0 DETERMINE IF THE CONDITION AFFECTS FISSION PRODUCT BARRIERS AND, IF SO, PROCEED TO TAB 1.
 - 2.1 <u>IF</u> the condition involves any of the following <u>AND</u> the initial mode was 1-4 <u>THEN</u> proceed to Tab 1 and follow instructions provided <u>AND</u> continue with Step 2.2.
 - 2.1.1 CSF status tree ORANGE PATH or RED PATH conditions
 - 2.1.2 Core exit thermocouple readings above 719 F

EPP/Implementing Procedure Recognition and Classification of Emergency Conditions

EPP/I-1a Unit 1

- 2.1.3 Reactor vessel full range water level less than 40% (no RCPs)
- 2.1.4 Elevated RCS activity >300 μCi/gm
- 2.1.5 Elevated Containment High Range Area Radiation Monitor reading
- 2.1.6 RCS leakrate large enough to require a 2nd charging pump
- 2.1.7 Loss of RCS subcooling
- 2.1.8 Steam Generator Tube Rupture
- 2.1.9 Containment bypass or loss of integrity
- 2.1.10 Rise in containment pressure or hydrogen concentration
- 2.2 Consider other related event-based EALs. <u>IF</u> other EALs are applicable, <u>THEN</u> perform Steps 3.0 and 4.0 if necessary. Otherwise, go to Step 5.0
- 3.0 CATEGORIZE THE EVENT INTO ONE OF THE INITIATING CONDITIONS AND LOCATE THE TAB.
 - 3.1 Locate one of the EAL indices provided at the start of each tab.
 - 3.2 Review the index to identify the tab that addresses the event that has occurred.
 - 3.3 Turn to the appropriate tab.

NOTE:

The assessment of an emergency condition shall be completed as soon as possible and within 15 minutes of the occurance of one or more INDICATORs. <u>IF</u> the assessment cannot be completed within the specified period, <u>THEN</u> the event must be declared on the basis of INDICATORs that cannot be reasonably discounted.

NOTE:

<u>IF</u> the EAL specifies a duration (e.g., release exceeds 2x T/S for one hour), <u>THEN</u> the assessment time runs concurrently with the required duration <u>AND</u> is the same length.

4.0 ASSESS THE EVENT AND COMPARE TO THE EALS

- 4.1 Locate the EAL for the highest severity emergency classification that is applicable for the initiating condition and operating mode
- 4.2 Review the INDICATORs and CRITERION for that EAL
- 4.3 <u>IF</u> the specified INDICATORs are not observed, <u>THEN</u>:
 - 4.3.1 Proceed to the next lower severity EAL and re-perform step 4.2 & 4.3.
 - 4.3.2 <u>IF</u> none of the EALs for an initiating condition are met, <u>THEN</u> reperform steps 3.0 and 4.0 for related initiating conditions.
 - 4.3.3 <u>IF</u> the actions above do not identify an applicable EAL, <u>THEN</u> review the observed conditions against Tab 4.7, Hazards and Emergency Director Judgment.
 - 4.3.4 <u>IF</u>, after performing the above, no EAL is identified, <u>THEN</u> proceed to step 6.0.
- 4.4 <u>IF</u> the specified INDICATORs are observed, <u>THEN</u>:
 - 4.4.1 Perform necessary assessments to validate the instrument readings and/or confirm reported observations.
 - 4.4.2 Initiate any sampling, inspections, or dose assessments specified by the EAL.

NOTE:

<u>IF</u> the CRITERION specifies an event or condition duration, <u>THEN</u> the classification shall be made as soon as the duration is exceeded, <u>OR</u> when it is apparent that the duration will be exceeded, whichever is earlier.

4.4.3 Compare the results of the assessments to the CRITERION.

NOTE:

A given INDICATOR may apply to more than one CRITERION. The Emergency Director shall review other related EALs for applicability.

- 4.5 <u>IF</u> the assessment concludes that the CRITERION is met, <u>THEN</u> the classification shall be made. Proceed to Step 5.0
- 4.6 <u>IF</u> the assessment concludes that the CRITERION is not met, <u>THEN</u> reperform steps 3.0 and 4.0 for other related initiating conditions as applicable.
- 4.7 <u>IF</u> no classification results from the above, <u>THEN</u> proceed to step 6.0.

NOTE:

The declaration of the emergency classification shall be made as soon as the Emergency Director has assessed that the EAL has been met OR will be met, AND within 15 minutes of occurance of the INDICATOR. Once the emergency is classified, notifications to state and local governments shall be completed within 15 minutes of the declaration.

- 5.0 DECLARE THE EMERGENCY CLASSIFICATION AND TRANSITION TO RESPONSE PROCEDURES
 - 5.1 <u>IF</u> an UNUSUAL EVENT is declared, <u>THEN</u> proceed to EPP/I-2
 - 5.2 <u>IF</u> an ALERT is declared, <u>THEN</u> proceed to EPP/I-3
 - 5.3 <u>IF</u> a SITE AREA EMERGENCY is declared, <u>THEN</u> proceed to EPP/I-4
 - 5.4 <u>IF</u> a GENERAL EMERGENCY is declared, <u>THEN</u> proceed to EPP/I-5

NOTE:

The step below is implemented only if an emergency classification is NOT made. IF a classification is made, THEN the transition indicated in step 5.0 should have been made.

- 6.0 EVALUATE THE NEED FOR AND MAKE NON-EMERGENCY NOTIFICATIONS
 - 6.1 <u>IF</u> the abnormal condition is reportable to the NRC pursuant to 10 CFR 50.72 and 1/2-ADM-2202, <u>THEN</u> perform the following:
 - 6.1.1 Complete the NRC Reactor Plant Event Notification Worksheet (located on the Regulatory Affairs web page).

- 6.1.2 Notify First Energy Communications of the event and provide the information on the NRC Reactor Plant Event Notification Worksheet.
- 6.2 <u>IF</u> directed by station management, <u>THEN</u> make courtesy calls to the following state and local agencies on a timely basis consistent with normal working hours.
 - 6.2.1 BCEMA
 - 6.2.2 PEMA
 - 6.2.3 CCEMA
 - **6.2.4 HCOES**

F. FINAL CONDITIONS

- 1.0 For emergency events, the transition to the appropriate response procedure has been made and actions pursuant to that procedure are in progress.
- 2.0 For non-emergency events, required notifications have been completed.

11

G. ATTACHMENTS

1.0 Tabs for Classification of Emergency Conditions

H. FIGURES

1.0 Figures are identified on the EAL indices

		t) !	٠.,				
200	1.1 Fuel C	ad Barrier					Barrier	
1. 1. 1	21:1:1 💹 Critical Safety Fun		4.5%	3,3	1.2.15% Critical Safe		tion Status The Company	
	And Loss (San Fr			,	LOSS		Potential LOSS	
1	Core Cooling CSF RED		.5-751				RCS Integrity CSF RED PATH OR Heat Sink CSF	
1	PATH ,	ORANGE PATH OR Her Sink CSF RED PATH	it iš	2 4 2 4 7 9 Y	Not applicable	-1 21	RED PATH	
		DE TOLL METERS OF THE	A Constant	- 15		ATTEST OF		
	1:1.2 Five Hottest CETC			\$\$ 37			er Level	
130	LOSS				LOSS		Potential LOSS	湿
1	Greater than 1200 F	Greater than 719 F		100	RVLIS Full Range <4	0%'	. /**)	18
	, "	:			(no RCPs running)	(, ,	Not Applicable	
1		R=3253771120000000000000000000000000000000000		. (4.5)		(A2: 5, O)	RF2 (SAME PER PER PER PER PER PER PER PER PER PE	
1	1.13 Reactor Vessel Wa		2000				TO THE PARTY OF TH	1335 1433
	LOSS	Potential LOSS	<u> </u>	. 186	LOSS	$\overline{}$	"Potential LOSS Unisolable RCS leak that	-13
	New Assets	RVLIS Full Range <409	% 3		RCS leak results in los RCS subcooling	ı	requires an additional	137.4
1	Not Applicable	(no RCPs running)	1	100	RCS Subcooming	, 1	charging pump be started	200
130	't						with letdown isolated	. 3
				5. Co	C		<u>OR</u>	- 13
10	, ,	r e	\$3.1 \$5.2	3	1	-	RCS leak causes safety	
	, 1 -	at the terms of		2	ž.		injection actuation indicated	
	, , ,	*	303		8		by direct entry into EOP E-1 required by EOP E-0	
	, · · · · · · · · · · · · · · · · · · ·	1		1	*		required by LOT 12.0	
1		P		1		#\$\$#-O	R-NS-II PROGRAMM	震器
1	1.1.4 Primary Coolant A	ctivity Level		1			iry Leak	
i i	LOSS	- Potential LOSS	一種	1	LOSS			
71	RCS activity >300	1	55	1	SGTR that results in	a safety		
	μCi/gm dose equivalent	Not Applicable		4	injection actuation	•	Not Applicable	機
	Iodine-131	,	2		Entry into E-3 requ	lead by		5
137	,			1	EOPs	ned by	f	7.7
- 3 27 - (-5%)	L	Productivik koleati	28	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	AVANCES LAGINITION	0:22	R-1600655555000	
	1.1.5 Letdown Monitor			- 1 S	1.2.5 Containme	nt Radia	tion Monitors	
	LOSS	Potential LOSS		- 3	LOSS		Potential LOSS	18
	RM-CH101 A or B VALID		Si.	i i	+VALID reading abo		New Alliettes Ma	
7	reading greater than 3.5E5	Not Applicable		8	background exceeds:		Not Applicable	46
	cpm with letdown unisolated				Time After RM-202 F	RM-201*		4.7
					S/D, hrs mR/hr	mR/hr		12
4.5	4	,		1	2 0-0 5 35 6 0 5-4 20	05 03		
		,		3	4-12	0 1	* Due to streaming thru airlock	
3	, , , , , , , , , , , , , , , , , , , ,			1	12-24 6	N/A	, 41 ·	100
	5 11 2 5 11) + ' · · · · · ·		. 2	+ Readings based on T/S RC	CS activity	, 1	
	AVERENTAL SECTION OF THE SECTION OF	RANK STEERS		1 8				30.
	1.1.6 Containment Radi			. 3				
	LOSS	Potential LOSS		1 2				
	VALID reading exceeds:	,,,,	22X	1				
<u> </u>	Time After RM-219A/B RM-201	Not applicable	343	37				
	S/D, hrs R/hr mR/hr	tvot applicable	3	453				
	0-0 5 250 1500 3 0 5-4 140 800	Due to streaming thru airlock		. 1				
	4-12 , 74 380 ,	1		, j				430
	12-24 42 200		O.	Į		的发表	物的医器弦器等	
Ŋ		R. Safter to a Sakon Sak		1 3		1	OR-	
	1:1.7 Emergency Direct	or Judgement		-	1.2.6 Emergency	200 200 200 200	or Judgement	15 mg
		judgement of the SM/ED	, T		Any condition that	t, in the	judgement of the SM/ED,	3
***	indicates loss or potential	loss of the Fuel Clad barrie		Solk,	indicates loss or	potential	l loss of the RCS barrier	100
I W	comparable to the indicator	s listed above.)	comparable to the in	ndicators	listed above.	
		NATION OF THE PERSON OF THE PE		'' {		常統計		類
	LOSS	Potential LOSS			LOSS 🖟 🔲 💸		* Potential LOSS	

1.3 CNM	IT Barrier
ACT CONTRACTOR IN CONTRACTOR AND ACT	EST OF SECTION OF SECT
13.1 Critical Safety Fu	
LOSS	Potential LOSS CNMT CSF RED PATH
Not Applicable	OR OR
	Actions of FR-C.1 (RED
	PATH) are INEFFECTIVE
	TATILY ME INCEPTEOUS
Branis London Areste	OR-ALDER AND ALDER A
1.3.2 Containment Pres	sure / Hydrogen Conc.
LOSS	Potential LOSS
Rapid unexplained drop	CNMT pressure >45
in CNMT pressure	PSIG
following initial rise	OR S
<u>OR</u>	CNMT H2 rises >4%
CNMT pressure or sump	OR SON
level response NOT	CNMT pressure >8 PSIG
consistent with LOCA	with less than one full
conditions	train of CNMT spray
133 Containment Isol	- Tu = Tu かかは ** をとかがれておかれるが、 5 - 心がじたがあいとう 7 **には多れ、 4-かず 12 **
LOSS	Potential LOSS
CNMT isolation is	Folential LOSS
incomplete creating a	Not Applicable
direct release path to the	Not Applicable
environment when	l és
required	
· · · · · · · · · · · · · · · · · · ·	
134 Containment Ryn	OR-
	ass
LOSS	Potential LOSS
LOSS RUPTURED S/G is also	Potential LOSS Unexplained VALID rise
LOSS RUPTURED S/G is also FAULTED Outside of	Potential LOSS Unexplained VALID rise in reading on area or
LOSS RUPTURED S/G is also FAULTED Outside of CNMT	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in
LOSS RUPTURED S/G is also FAULTED Outside of CNMT OR	Potential LOSS Unexplained VALID rise in reading on area or
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr.	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV,	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR- activity in Containment
LOSS RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 113.5; Significant Radio LOSS	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR- activity in Containment Potential LOSS
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR- activity in Containment
LOSS RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 113.5; Significant Radio LOSS	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR- activity in Containment Potential LOSS VALID reading exceeds:
LOSS RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 113.5; Significant Radio LOSS	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR- activity in Containment Potential LOSS
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 13.5; Significant Radio LOSS Not applicable	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR activity in Containment Potential LOSS VALID reading exceeds: Time After RM-219A/B RM-201* S/D, hrs R/hr mR/hr 0-0 5 1 5E4 1 0E5
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 13.5; Significant Radio LOSS Not applicable * Due to streaming thru	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR activity in Containment Potential LOSS VALID reading exceeds: Time After RM-219A/B RM-201* S/D, hrs R/hr mR/hr 0-0 5 1 5E4 1 0E5 0 5-4 5 2E3 3 4E4
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 13.5; Significant Radio LOSS Not applicable	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR activity in Containment Potential LOSS VALID reading exceeds: Time After RM-219A/B RM-201* S/D, hrs R/hr mR/hr 0-0 5 1 5E4 1 0E5
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 1:3.5; Significant Radio LOSS Not applicable * Due to streaming thru airlock	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR- activity in Containment Potential LOSS VALID reading exceeds: Time After RM-219A/B RM-201* S/D, hrs R/hr mR/hr 0-0 5 1 5E4 1 0E5 0 5-4 5 2E3 3 4E4 4-12 2 2E3 1 3E4 12-24 1 0E3 6 0E3 OR-
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 13.5; Significant Radio LOSS Not applicable * Due to streaming thru airlock -1.3.6 Emergency Direct	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR activity in Containment Potential LOSS VALID reading exceeds: Time After RM-219A/B RM-201* S/D, hrs R/hr mR/hr 0-0 5 1 5E4 1 0E5 0 5-4 5 2E3 3 4E4 4-12 2 2E3 1 3E4 12-24 1 0E3 6 0E3 OR- tor Judgement
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 13.5; Significant Radio LOSS Not applicable * Due to streaming thru airlock Any condition that, in the	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR activity in Containment Potential LOSS VALID reading exceeds: Time After RM-219A/B RM-201* S/D, hrs R/hr mR/hr 0-0 5 1 5E4 1 0E5 0 5-4 5 2E3 3 4E4 4-12 2 2E3 1 3E4 12-24 1 0E3 6 0E3 OR- tor Judgement the judgement of the SM/ED,
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 13.5 Significant Radio LOSS Not applicable * Due to streaming thru airlock 1.3.6 Emergency Direct Any condition that, in the indicates loss or potential	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR activity in Containment Potential LOSS VALID reading exceeds: Time After RM-219A/B RM-201* S/D, hrs R/hr mR/hr 0-0 5 1 5E4 1 0E5 0 5-4 5 2E3 3 4E4 4-12 2 2E3 1 3E4 12-24 1 0E3 6 0E3 OR- tor Judgement the judgement of the SM/ED, loss of the Containment barrier
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 13.5; Significant Radio LOSS Not applicable * Due to streaming thru airlock Any condition that, in the	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR activity in Containment Potential LOSS VALID reading exceeds: Time After RM-219A/B RM-201* S/D, hrs R/hr mR/hr 0-0 5 1 5E4 1 0E5 0 5-4 5 2E3 3 4E4 4-12 2 2E3 1 3E4 12-24 1 0E3 6 0E3 OR- tor Judgement the judgement of the SM/ED, loss of the Containment barrier
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 13.53 Significant Radio LOSS Not applicable * Due to streaming thru airlock 1.3.6 Emergency Direct Any condition that, in the indicates loss or potential comparable to the indicato	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR activity in Containment Potential LOSS VALID reading exceeds: Time After RM-219A/B RM-201* S/D, hrs R/hr mR/hr 0-0-5 15E4 10E5 05-4 52E3 34E4 4-12 22E3 13E4 12-24 10E3 60E3 OR- tor Judgement ne judgement of the SM/ED, loss of the Containment barrier rs listed above.
RUPTURED S/G is also FAULTED Outside of CNMT OR P-to-S leakrate > T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB outside of CNMT 13.5 Significant Radio LOSS Not applicable * Due to streaming thru airlock 1.3.6 Emergency Direct Any condition that, in the indicates loss or potential	Potential LOSS Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA OR Hi-Hi Alarm on RM-RW-100A,B,C, or D AND affected HX is NOT isolated OR activity in Containment Potential LOSS VALID reading exceeds: Time After RM-219A/B RM-201* S/D, hrs R/hr mR/hr 0-0 5 1 5E4 1 0E5 0 5-4 5 2E3 3 4E4 4-12 2 2E3 1 3E4 12-24 1 0E3 6 0E3 OR- tor Judgement the judgement of the SM/ED, loss of the Containment barrier

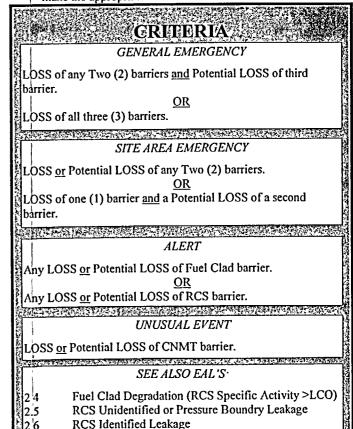
Modes: 1,2,3,4 INSTRUCTIONS

NOTE: An INDICATOR is considered to be MET if the stated threshold has been, or is, reached or exceeded, on the basis of confirmed observation or VALID instrument readings. The Emergency Director must use judgement when classifying parameters that may be transitory (e.g., containment pressure).

NOTE: The INDICATOR should be considered MET if the parameter is indeterminate due to instruments that are not available or out of range and the existence of the condition can not be reasonably discounted.

NOTE An INDICATOR is considered to be MET if, in the judgement of the Emergency Director, the INDICATOR will be MET imminently (i.e., within 1 to 2 hours in the absence of a viable success path) The classification shall be made as soon as this determination is made.

- 1. In the matrix to the left, review the LOSS INDICATORS in each barrier column. If one or more INDICATORS are met, check the LOSS block at the bottom of the column
- If no LOSS is identified for a particular barrier, review the
 potential LOSS INDICATORS for that barrier. If one or
 more INDICATORS are met, check the potential LOSS
 block at the bottom of the barrier column.
- 3. Compare the blocks checked to the CRITERIA below and make the appropriate declaration.



ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (ie; the basis of the declaration). All classifications are based on an assessment (ie., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these RED PATH: Monitoring of one or more CSFs by the EOPs which assessments to be completed within 15 minutes (unless otherwise noted) of indicates that a CSF is under extreme challenge. indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS)

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability. the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or vessel water level (RVLIS full range) and/or decreasing trend on core reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

> VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

	2.1	Loss of Instrumentation
	Mode	Criterion / Indicator
GBNBRAL		Refer to Tab 1 "Fission Product Barrier Matrix" and Tab 7 "Radiological Effluents" Inability to monitor a SIGNIFICANT
TE AREA	· 1 2 3 4	TRANSIENT in progress [1 and 2 and 3 and 4] 1. Loss of most (>75%) annunciators or indications 2. SIGNIFICANT TRANSIENT in progress 3. Loss of SER and SPDS 4. Inability to directly monitor any of the following CSFs:
SIT	e pr ^a e .	Subcriticality Vessel Integrity Core Cooling Containment Heat Sink
DRAL	1 2 3	UNPLANNED loss of most annunciators or indications for >15 minutes with either a SIGNIFICANT TRANSIENT in progress or a loss of non-alarming compensatory indications [1 and 2 and 3] 1. UNPLANNED' loss of most (>75%) annunciators or indications for >15 minutes 2. SM judgement that additional personnel
<u>av</u>	4	(beyond normal shift complement) are required to monitor the safe operation of the unit 3. [a or b] a. SIGNIFICANT TRANSIENT in
UNUSUALFEVENT	1 2 3 4	progress, b. Loss of SER and SPDS UNPLANNED loss of most annunciators or indications for >15 minutes [1 and 2] 1. UNPLANNED loss of most (>75%) annunciators or indications for >15 minutes 2. SM judgement that additional personnel (beyond normal shift complement) are required to monitor the safe operation of the unit

n of sales		2.2	Loss of Function
, +	, [Mode	Criterion / Indicator
er Matrix"			Inability to cool the core [1 or 2]
		1 2 3 4	1. Actions of FR-C.1 (RED PATH) are INEFFECTIVE 2. [a and b] a. Five hottest core exit thermocouples >1200 F; or five hottest core exit thermocouples >719 F with NO RCPs running and RVLIS full range level
			<40% b. Actions taken have NOT resulted in a rising trend in RVLIS full range level or a dropping trend in core exit thermocouple temperatures within 15 minutes of initiation of restoration actions
NIFICANT			Loss of function needed to achieve or maintain hot shutdown [1 or 2]
nciators <u>or</u>			Ops personnel report a CSF status tree RED PATH terminus for core cooling or heat sink
progress	j	1	exists 2. Five hottest core exit thermocouples >1200
nny of the		2 3	F; or five hottest core exit thermocouples >719 F with NO RCPs running and RVLIS full range level <40%
ntegrity nent		4	Also Refer to Tab 2.3 "Failure of Reactor Protection" and Tab 1 "Fission Product Barrier Matrix"
	ĺ		
nciators <u>or</u> h either a ogress <u>or</u> a ndications		·	Complete loss of function needed to achieve Cold Shutdown when Shutdown required by Tech Specs [1 and 2 and 3]
st (>75%)		1 2	Loss of decay heat removal capability (RHR, CCR or RPRW) / (RHS, CCP, SWS)
5 minutes l personnel ement) are	ь,	3 4	2. Inability to remove heat via the condenser
ration of the	7	•	3. Shutdown to mode 5 required by T/S
SIENT in	î		
nciators · <u>or</u>			UNPLANNED Loss of communications [1 or 2]
ost (>75%) 15 minutes 1 personnel 1 personnel	,	ALL	In-plant [a and b and c] a. UNPLANNED Loss of All Pax Phones b UNPLANNED Loss of All Gaitronics (Page/Party) c. UNPLANNED Loss of All Radios (Handie-Talkies)
ration of the			2. Offsite [a and b and c] a. UNPLANNED Loss of ENS b. UNPLANNED Loss of Bell Lines c. UNPLANNED Loss of Radios to Offsite

2.3	Failure of Rx Protection
Mode	Criterion / Indicatof
	Reactor power >5% after VALID trip signal(s) and loss of core cooling capability [1 and 2] 1. Ops personnel report FR-S.1 has been
1 2	entered and subsequent actions do NOT result in reduction of power to <5% and decreasing
	 2. [a or b] a Ops personnel report CSF status tree RED PATH terminus exists for core cooling or heat sink b. Five hottest core exit thermocouples >1200 F; or five hottest core exit thermocouples >719 F with NO RCPs running and RVLIS full range level <40%
	Reactor trip failure after VALID Trip signal(s) with reactor power >5% and attempts to cause a manual trip from the control room are unsuccessful.
1 2	Ops personnel report FR-S.1 has been entered <u>and</u> manual reactor trip from control room did NOT result in reduction of power to <5% and decreasing
1 2	Automatic reactor trip did not occur after VALID trip signal and manual trip from control room was successful [1 and 2] 1. VALID reactor trip signal received or required. 2. Manual reactor trip from control room was successful and power is <5% and decreasing
	Not Applicable

2.4	Fuel Clad Degradation	EPP/I-1a At
Mode	Criterion / Indicator Refer to Tab 1 "Fission Product Barrier Matrix"	GENERAL
	Refer to Tab 1 "Fission Product Barrier Matrix"	SITTE AREA
	Refer to Tab 1 "Fission Product Barrier Matrix"	ANDRAL
1 2 3 4 5	Reactor coolant system specific activity exceeds LCO (refer to BVPS technical specification 3.4.8) [1 or 2] 1. VALID high alarm on RM-CH-101A or B reactor coolant letdown monitor 2. Radiochemistry analysis exceeds Technical Specification 3 4 8.	UNIUSIUAL BYBRE

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these RED PATH: Monitoring of one or more CSFs by the EOPs which assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF:Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a p structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

VITAL AREA is any area within the PROTECTED AREA whi contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation !

e+ "{ 1 1 ⁸	2.5 Mode	RCS Unidentified Leakage Criterion / Indicator		2. Mo
	Mode	Refer to Tab 1 "Fission Product Barrier Matrix"		1010
GENERAL	***		\$ et	
	,		·	
	7,	1		
	, Mr.	Refer to Tab 1 "Fission Product Barrier Matrix"		
V		·		ľ
A		* 1		
크	r			
	, ,			ļ
		''		ļ
	1 .	Refer to Tab 1 "Fission Product Barrier Matrix"		
		•		
		·		
		1 4		
×				
	1			
	,	, , ;	,	
		e hard	,	Ì
		St. Communication of the state		L
		Unidentified or pressure boundary RCS leakage >10 GPM	i.	
UNUSUAL EVEN	1 2 3 4 5*	 Unidentified or pressure boundary leakage (as defined by Technical Specifications) >10 GPM as indicated below [a or b] a. OST 1.6.2 results b. With RCS temp. and PZR level stable, VCT level dropping at a rate >10 GPM (>1%/min indicated on LI-CH-115 with no VCT makeup in progress) *Applies to Mode 5 if RCS Pressurized 		1 2 3 4 5

	RCS Identified Leakage
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	1
	'
•	
	,
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Rejer to tab 1 Passion Product Burrier Man &
b	-
	n.
	,
	1
1	Refer to Tab 1 "Fission Product Barrier Matrix"
	,
1	
	1
ı	
	Identified RCS leakage >25 GPM
	1. Identified RCS leakage (as defined by Technical Specifications) >25 GPM as
	indicated below [a or b]
1 2	a. OST 1.6 2 or 1.6.2A Results
2 3 4	b. UNPLANNED level rise in excess of
4	25 GPM total into PRT, DG-TK-1, and
5*	DG-TK-2
,	
1	
!	*Applies to Mode 5 if RCS Pressurized

Mode	Technical Specification Criterion / Indicator
	Not Applicable
	Not Applicable
	Refer to Tab 2.2, "Loss of Function"
	Inability to Reach Required Shutdown Mode Within Technical Specification Time Limits
1 2 3 4	 A Technical Specification action statement, requiring a mode reduction, has been entered The unit has NOT been placed in the required mode within the time prescribed by the action statement

	2.8	Safety Limit	EPP/I-1a Att I
-	Mode	Criterion / Indicator	No const
		Not Applicable	GBNIBRAL
		Not Applicable	SITUD ANRDA
		Not Applicable	ALBRT
_; ;	1 2 3 4 5	 Safety Limit Has Been Exceeded [1 or 2] Technical Specification 2.1.1 specifies the safety limits for the reactor core which are applicable in Modes 1 and 2. Technical Specification 2.1.2 specifies the safety limit for the Reactor Coolant System pressure which is applicable in Modes 1, 2, 3, 4 and 5 	UNUSUAL EVENT

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: 'A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these RED PATH: Monitoring of one or more CSFs by the EOPs which assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 VALID: An indication or report or condition is considered to be VALID minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures)

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a pl structure. The source of the projectile may be onsite or offsite. Potent for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates. and/or discharge of incorrect tank).

when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes)

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering Surface blemishes (e.g., paint chipping, scratches) should not be included.

VITAL AREA is any area within the PROTECTED AREA whi contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

2-1
Table
2.10,
2.9,

2.9 Mode	Turbine Failure Criterion / Indicator	,	2.10 Mode	Steam/Feed Line Break Criterion / Indicator
Mode	Refer to Tab 1 "Fission Product Barrier Matrix"	•	1.1000	Refer to Tab 1 "Fission Product Barrier Matrix"
•	10 11	Ì		
	,	l		
•				
		İ		
		,	,	1
ı	,	,		
	,			
		,		
6.				
	Refer to Tab 1 "Fission Product Barrier Matrix"			Refer to Tab 1 "Fission Product Barrier Matrix"
,	·			
	<u> </u>			
	,			
	·			
	\			
			1	6 2
,	Turbine failure generated missiles cause			Refer to Tab 1 "Fission Product Barrier Matrix"
	penetration of a missile shield wall of any area containing safety related equipment			
•	1. Plant personnel report missiles generated by			
	turbine failure with casing penetration also results in a through-wall penetration of a	,		
, 1 2	missile shield wall listed in Table 2-1		ı	
· ·3. ·		, .		
	-		<u> </u>	
1.				te -
· .				
	Turbine failure results in casing penetration	,		UNPLANNED rapid depressurization of the
٠.	Plant personnel report a turbine failure which			Main Steam System resulting in a rapid RC cooldown and Safety Injection actuation
τ''	results in penetration of the turbine casing or		fr	[1 and 2]
•	damage to main generator seals with evidence of significant hydrogen or seal oil		,	1. Ops personnel report rapid depressurization
1 ; 2	leakage	,	1 2	of Main Steam System that causes SLI (<50 psig)
3			2 3 4	
		,	4	2. Ops personnel report Safety Injection has actuated
] :			

Table 2-1 Plant Areas Associated With Shield Wall Penetration EAL

Control Room Electrical Switchgear Safeguards
Diesel Generator Bldg

Cable Tray Mezz Containment Primary Aux. Building 1WT-TK-10

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration) All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these RED PATH: Monitoring of one or more CSFs by the EOPs which assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS)

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i e, steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e g, increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip: (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine)

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i e, within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

ļ		Loss of AC (Power Ops)
	Mode	Criterion / Indicator
		Prolonged loss of offsite and onsite AC power [1 and 2]
GENERAL	1 2 3 4	1. AE and DF 4KV emergency buses NOT energized from Unit 1 sources for >15 minutes 2. [a or b or c] a. Ops personnel report CSF status tree RED PATH or ORANGE PATH terminus exists for core cooling b. Restoration of either AE or DF 4KV emergency bus is NOT likely from any source within 3 hours of loss c. Five hottest core exit thermocouples >1200 F or five hottest core exit thermocouples >719 F with no RCPs running and RVLIS full range <40%
	, ,	Loss of offsite and onsite AC power for >15 minutes
SITE AREA	1 2 3 4	1. AE and DF 4KV emergency buses NOT energized from Unit 1 sources for >15 minutes
		AC power to emergency buses reduced to a single source of power such that any additional failure will result in the de-energization of both buses [1 and 2]
2 2 2 2	1	1. Either AE or DF 4KV emergency bus is de- energized for >15 minutes
AIS	3 4 -	2. The energized AE or DF 4KV emergency bus has only one source of power [a or b]
	·	a. Emergency diesel generator b. 1A or 1D 4KV normal bus
		Loss of offsite power for >15 minutes [1 and 2]
भूप छो।	, ,	1. 1A and 1D 4KV normal buses de-energized for >15 minutes
	. 1 2 3	Each diesel generator is supplying power to its respective emergency bus
	4	, , ,
	<u>-</u>	
12.1		

Mode	Criterion / Indicator
	Refer to Tab 6 "Shutdown System Degradation"
	1
	,
	1
,	
,	
	Refer to Tab 6 "Shutdown System Degradation"
	, , , , , , , , , , , , , , , , , , , ,
•	•
	,
•	1 4
	•
	r r
,	UNPLANNED loss of offsite and onsite AC power for >15 minutes
	1. AE and DF 4KV emergency buses NOT
	energized from Unit 1 sources for >15
	minutes
5	Also Refer to Tab 6 "Shutdown System
6	Degradation"
De-	- , , , , , , , , , , , , , , , , , , ,
fuel	'
	, '
	UNPLANNED loss of offsite power for >15
	minutes [1 and 2]
	4 44 140
	1. 1A and 1D 4KV normal buses de-energized for > 15 minutes
	101 ~ 13 minutes
5	2. Either diesel generator is supplying power to
6	its respective emergency bus
De-	
Garage 1	•
fuel '	
iuei	,

Loss of all vital DC power for >15 minutes	Refer to Tab 1 "Fission Product Barrier Matrix" and Tab 22 "Loss of Function", and Tab 61 "Loss of Shutdown Systems" Loss of all vital DC power for >15 minutes 1. Voltage <110 4 VDC on DC buses 1-1 and 1-2 and 1-3 and 1-4 for >15 minutes Also Refer to Tab 1 "Fission Product Barrier Matrix" Tab 22 "Loss of Function" and Tab 21
1. Voltage <110 4 VDC on DC buses 1-1 and 1-2 and 1-3 and 1-4 for >15 minutes Also Refer to Tab 1 "Fission Product Barrier Matrix" Tab 2 "Loss of Function" and Tab 2 1	1. Voltage <110 4 VDC on DC buses 1-1 and 1-2 and 1-3 and 1-4 for >15 minutes Also Refer to Tab 1 "Fission Product Barrier Matrix", Tab 2 2 "Loss of Function", and Tab 2 1 "Loss of Instrumentation" and Tab 6 1 "Loss of Shutdown Systems" Refer to Tab 1 "Fission Product Barrier Matrix", Tab 2 2 "Loss of Function", and Tab 2 1 "Loss of Instrumentation" and Tab 6 1 "Loss of Shutdown
	Tab 2 2 "Loss of Function", and Tab 2 1 "Loss of Instrumentation" and Tab 6 1 "Loss of Shutdown

AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i e, the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these RED PATH: Monitoring of one or more CSFs by the EOPs which assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has indications on related or redundant indicators, or (3) by direct observation been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

14 c

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO. LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under severe challenge.

> PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

> The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine)

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

1		
1	4.1	
	Mode	Criterion / Indicator
SENERAL	1 2 3 4	FIRE in the control room, cable tray mezzanine, or process control room resulting in an evacuation of the control room per 1.56C.4 "Alternate Safe Shutdown" and loss of any required equipment results in an uncontrolled RCS Heatup [1 and 2 and 3] 1. 1.56C.4 "Alternate Safe Shutdown" entered 2. Ops personnel report inability to operate at least one of each of the following components of the available train:
	, , , , , , , , , , , , , , , , , , ,	Charging pump AFW pump Diesel generator RPRW pump BIP Steam relief path 3. Uncontrolled RCS heatup lasting longer than
		15 minutes
SHUE ARREA	1 2 3 4	FIRE in the control room, cable tray mezzanine, or process control room resulting in an evacuation of the control room per 1.56C.4 "Alternate Safe Shutdown" 1. 1.56C.4 "Alternate Safe Shutdown" entered
ZI.		FIRE in any of the areas listed in Table 4-1 that is affecting safety related equipment [1 and 2] 1. FIRE in any of the listed areas in Table 4-1 2. [a or b]
AIGH	A11 	a. Ops personnel report VISIBLE DAMAGE to permanent structure or equipment in listed area due to FIRE

b. Control room indication of degraded system or component (within listed areas) response due to FIRE

FIRE in or adjacent to those areas listed in Table 4-1 not extinguished within 15 minutes from the time of control room notification or verification of control room alarm

'All

4.2	Explosions
Mode	Criterion / Indicator
	Refer to Tab 4 1"Fire" or Tab 1 "Fission Product
	Barrier Matrix"
	·
	1
	,
-	ı
	•
	,
	Refer to Tab 4.1 "Fire" or Tab 1 "Fission Product
	Barrier Matrix"
	`
, ,	
	,
	' '
	,
	EXPLOSION in any of the areas listed in Table
1	4-1 that is affecting safety related equipment
	[1 and 2]
	1. EXPLOSION in any of the listed areas in
	Table 4-1
< All	2. [a or b]
	2. [20.0]
•	a. Ops personnel report VISIBLE
	DAMAGE to permanent structure or
	equipment in listed area b. Control room indication of degraded
,	b. Control room indication of degraded system or component (within listed
	areas) response due to EXPLOSION
	Refer to Tab 4.6 "Security"
	UNPLANNED EXPLOSION in or adjacent to
	those areas listed in Table 4-1
•	1 TINDE ANNED EVEL OCION :1
	1. UNPLANNED EXPLOSION in or adjacent to any of the listed areas in Table 4-1
	to any or the nated areas in Table 4-1
	· 1
All	Refer to Tab 4.1 "Fire" or Tab 1 "Fission
All	Refer to Tab 4.1 "Fire" or Tab 1 "Fission Product Barrier Matrix"
All	Product Barrier Matrix"
All	
All	Product Barrier Matrix"
All	Product Barrier Matrix"
All	Product Barrier Matrix"

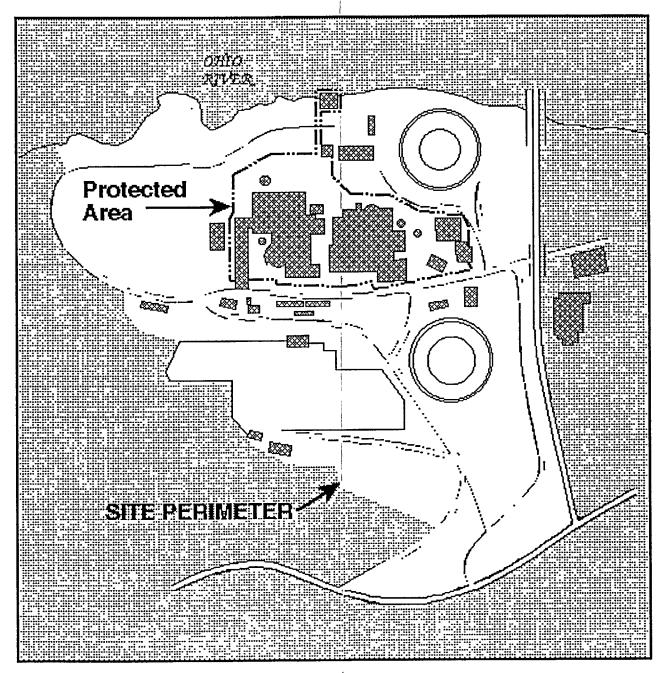
TABLE 4-1 PLANT AREAS ASSOCIATED WITH FIRE AND EXPLOSION EALS

Control Room Cable Tray Mezz. Process Cntrol Rm Relay Room Rod Drive/MG Rm RWST (1QS-TK-1)

Diesel Gen. Room Intake Str Cubicles U1/U2 CV3 Cable Tunnel AE/DF Switchgear Fuel Building RW Valve Pit

Containment Building Prim. Auxiliary Building Safeguards Building Demin Water (1WT-TK-10) CO2 Storage/PG Pump Rm D/G Fuel Oil

Figure 4-A PROTECTED AREA / SITE PERIMETER



ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration) All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these RED PATH: Monitoring of one or more CSFs by the EOPs which assessments to be completed within 15 minutes (unless otherwise noted) of indicates that a CSF is under extreme challenge indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs. Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Reactor Trip; (4) Safety Injection System Activation Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e g, increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power. (2) Electrical load rejection >25% full electrical load; (3)

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

HOSTAGE: A person or object held as leverage against the station to With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

> VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes)

minutes from identification of the Core Cooling CSF Status Tree RED VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

> VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

ļ	4.3 Mode	Flammable Gas Criterion / Indicator
GBNBRAL	>-,	Refer to Tab 4.1 "Fire", Tab 4.2 "Explosion, or Tab 1 "Fission Product Barrier Matrix"
SITTE AREA		Refer to Tab 4.1 "Fire", Tab 4.2 "Explosion", or Tab 1. "Fission Product Barrier Matrix"
ALBRI	All	Release of flammable gas within, or contiguous to, a VITAL AREA which jeopardizes operation of systems required to maintain safe operations or to establish or maintain cold shutdown (Mode 5). 1. Report or detection of a flammable gas within, or contiguous to, a VITAL AREA in concentrations greater than explosive concentrations.
UNUSUAL EVENT	All -	Release of flammable gas affecting the PROTECTED AREA deemed detrimental to the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of flammable gas that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded due to access restrictions implemented by the Control Room within the PROTECTED AREA (Refer to Figure 4-A). 2. Report by local, county or State officials for a potential evacuation of site personnel based on an offsite event.

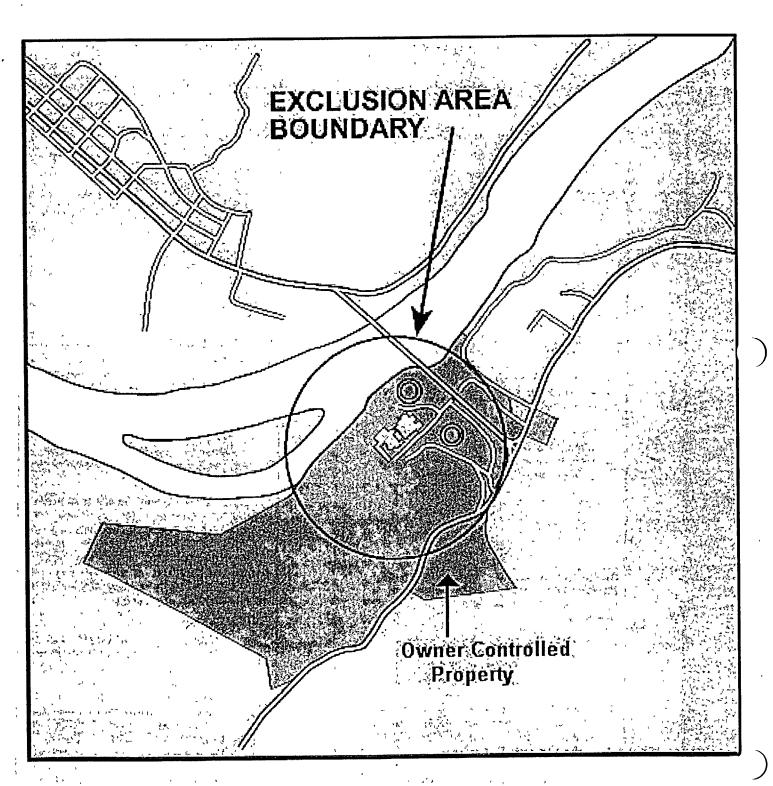
	Toxic Gas Criterion / Indicator
Mode	Refer to Tab 1 "Fission Product Barrier Matrix"
'	Refer to 1 at 1 Pission Product Barrier Main &
,	1
,	
	•
	,
	,
.,	
	D. C T. I. I. "Fireign Drackest Paymon Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
•	
	1
1	
	<u> </u>
İ	1
	Release of TOXIC GAS within, or contiguous
,	to, a VITAL AREA which jeopardizes
	operation of systems required to maintain safe
	operations or to establish or maintain cold
	shutdown (Mode 5). (1 and 2)
	1
	1. Report or detection of a TOXIC GAS within, or contiguous to, a VITAL AREA or an area
All	required for continued safe operation in
1	concentrations that will be life threatening to
	1
	plant personnel.
	2. Plant personnel would be unable to perform
1 .	actions necessary for continued safe
1	operation or to establish and maintain cold
[shutdown (Mode 5) while utilizing
	appropriate personnel protection equipment.
<u> </u>	Release of TOXIC GAS affecting the
	PROTECTED AREA deemed detrimental to
	the safe operation of the plant.
	the safe operation of the plant. (1 or 2) 1. (a and b)
	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that
All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in
All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in
All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A).
All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A).
- All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded
- All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded due to access restrictions implemented by
- All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded due to access restrictions implemented by the Control Room within the
- All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded due to access restrictions implemented by the Control Room within the PROTECTED AREA (Refer to
. All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded due to access restrictions implemented by the Control Room within the PROTECTED AREA (Refer to Figure 4-A).
All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded due to access restrictions implemented by the Control Room within the PROTECTED AREA (Refer to Figure 4-A). 2. Report by local, county or State officials for a
All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded due to access restrictions implemented by the Control Room within the PROTECTED AREA (Refer to Figure 4-A). 2. Report by local, county or State officials for a potential evacuation of site personnel based
All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded due to access restrictions implemented by the Control Room within the PROTECTED AREA (Refer to Figure 4-A). 2. Report by local, county or State officials for a potential evacuation of site personnel based on an offsite event.
All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded due to access restrictions implemented by the Control Room within the PROTECTED AREA (Refer to Figure 4-A). 2. Report by local, county or State officials for a potential evacuation of site personnel based on an offsite event. Refer to AOP 1/2 44A.1 "Chlorine/toxic Gas"
All	the safe operation of the plant. (1 or 2) 1. (a and b) a. Report or detection of TOXIC GAS that could enter the SITE PERIMETER in amounts that can affect normal operation of the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded due to access restrictions implemented by the Control Room within the PROTECTED AREA (Refer to Figure 4-A). 2. Report by local, county or State officials for a potential evacuation of site personnel based

FIGURE 4-B HAS BEEN DELETED

TABLE 4-2 HAS BEEN DELETED

Figure 4-C

EXCLUSION AREA BOUNDARY



N

•	4.5	Control Room Evacuation
	Mode	Criterion / Indicator
	į.	Refer to Tab 4.1 "FIRE"
	¥	e e
	,	, i
		,
5		
		3,
3		
ひ	•,	· ,, , , , , , , , , , , , , , , , , ,
		,
	,	
NE ARREA	-	Evacuation of the control room has been initiated and control of all necessary equipment has not been established within 15 minutes of manning the Shutdown Panel [1 and 2] 1. AOP 1.33.1 "Control Room Inaccessibility" has been entered
		has been entered
7.5	, ,	2. Inability to transfer and operate any single
	All	component listed in Table 4-3 within 15 minutes of manning the shutdown panel
	· An	, ,
S	, ,	Also refer to Tab 4.1 "Fire"
		,
	1, 1	A second
	,	Evacuation of the control room is required
	57 8 1	1. AOP 1.33.1 "Control Room Inaccessibility" has been entered
	,	
 5 		
	· ·	
	ν« Α 11	,
	, All	* · · · · · · · · · · · · · · · · · · ·
		. -
	, , , , , , , , , , , , , , , , , , ,	
		The second of th
	7 ,	NAA A and table
	,, i, i,	Not Applicable
3		
	F1	
2		
₹	() }	\$
		;
S		
	1 -	1 '

4.6	Security
Mode	Criterion / Indicator
	Security event resulting in loss of control of the systems necessary to establish or maintain cold shutdown [1 or 2]
	Hostile armed force has taken control of the control room or the remote shutdown panel
All	2. Hostile armed force has taken control of plant equipment such that Ops personnel report the inability to operate equipment necessary to maintain the following functions [a or b or c]
3	a Subcriticality b. Core cooling c. Heat Sink
	Security event has or is occurring which results in actual or likely failures of plant functions needed to protect the public [1 or 2]
	 VITAL AREA, other than the control room, has been penetrated by a hostile armed force
	2. Suspected BOMB detonates within a VITAL AREA
All	,
,	, , , , , , , , , , , , , , , , , , , ,
	Credible Security event which indicates an actual or potential substantial degradation in the level of safety of the plant [1 or 2 or 3]
	1. BOMB discovered within a VITAL AREA
	2. CIVIL DISTURBANCE ongoing within the PROTECTED AREA
All	3. PROTECTED AREA has been penetrated by a hostile armed force
٤,,	Refer to Figure 4-A for a drawing of the PROTECTED AREA
* 1	Credible Security event which indicates a potential degradation in the level of safety of the plant [1 or 2]
	1. BOMB discovered within the PROTECTED AREA
All	2. Security Shift Supervisor reports one or more of the events listed in Table 4-4
	Refer to Figure 4-A for a drawing of the PROTECTED AREA
1	

4.7	Emergency Director Judgement	
Mode	Criterion / Indicator Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA protective action guidelines exposure levels outside the EXCLUSION AREA BOUNDARY. (Refer to Figure 4-C on preceding page.)	GENERAL
All	Events are in process or have occurred which involve actual or likely major failures of plant functions 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 outside the EXCLUSION AREA BOUNDARY. (Refer to Figure 4-C on preceding page.)	SITTE AREA
All	Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA protective action guideline exposure levels.	ALBORAN
All	Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.	N N N

Table 4-3 EQUIPMENT REQUIRED AT SHUTDOWN PANEL

One Auxiliary Feedwater Pump One Atmospheric Steam Dump One Charging Pump One Boric Acid Pump 1FCV-CH-122

Table 4-4 SECURITY EVENTS

- a. SABOTAGE/INTRUSION has <u>or</u> is Occurring Within the PROTECTED AREA (Figure 4-A)
- b. IIOSTAGE/EXTORTION Situation That Threatens to Interrupt Plant Operations
- c. CIVIL DISTURBANCE Ongoing Between the SITE PERIMETER and PROTECTED AREA (Figure 4-A)
- d. Hostile STRIKE ACTION Within the PROTECTED AREA Which Threatens to Interrupt Normal Plant Operations (Judgement Based on Behavior of Strikers and/or Intelligence Received) (Figure 4-A)
- e. A credible site-specific security threat notification.

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: 'A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indicates that a CSF is under extreme challenge. indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 VALID: An indication or report or condition is considered to be VALID minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plant 'structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RED PATH: Monitoring of one or more CSFs by the EOPs which

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

HOSTAGE: A person or object held as leverage against the station to With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

> when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes)

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is improvement in the applicable parameters (e.g., increasing trend in reactor sufficient to cause concern regarding the continued operability or vessel water level (RVLIS full range) and/or decreasing trend on core reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

CINEU	
SINDAIRDA	Refer to Tab I "Fission Product Barrier Matrix"
	10.1
ANA AII	Earthquake greater than 0.06g acceleration occurs 1 Analysis of Accelerograph Recording System data indicate ground acceleration >0 06g is accordance with AOP 1/2.75.3 "Acts Nature - Earthquake"
EVENT	Earthquake detected by site seisminstrumentation, >0.01g acceleration [1 and 2] 1. Ann A11-59 "Seismic Accelerograp Operation" indicates initiation of the Accelerograph Recording System 2. [a or b]

a. Ground motion sensed by plant

unit instrumentation

Unit 2 reports seismic event detected on

UNUSUAL

Earthquake

Criterion / Indicator

Refer to Tab 1 "Fission Product Barrier Matrix"

Mode

	Tornado
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
:	,
	• ,
	,
	, ' '
	1 1
	f
	, , ,
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Rejer to Tub 1 Pission Product Burrier man &
	1
-	
	1
	Tornado or high wind strikes any structure listed in Table 5-1 and results in structural damage [1 and 2]
	1. Tornado or high wind strikes any structure
	listed in Table 5-1
	2. [a or b]
4 11	Confirmation of the Stormen
Alļ	a. Confirmed report of any VISIBLE
	DAMAGE to specified structures b. Control room indications of degraded
	b. Control room indications of degraded safety system or component response
	within listed structures due to event
	within fisted structures due to event
	Tornado within the SITE PERIMETER
	Tornado within the SITE PERINETER
	1. Plant personnel report a tornado has been
	sighted within the SITE PERIMETER (refer to Figure 5-A)
All	
	I .

Figure 5-A
Site Perimeter



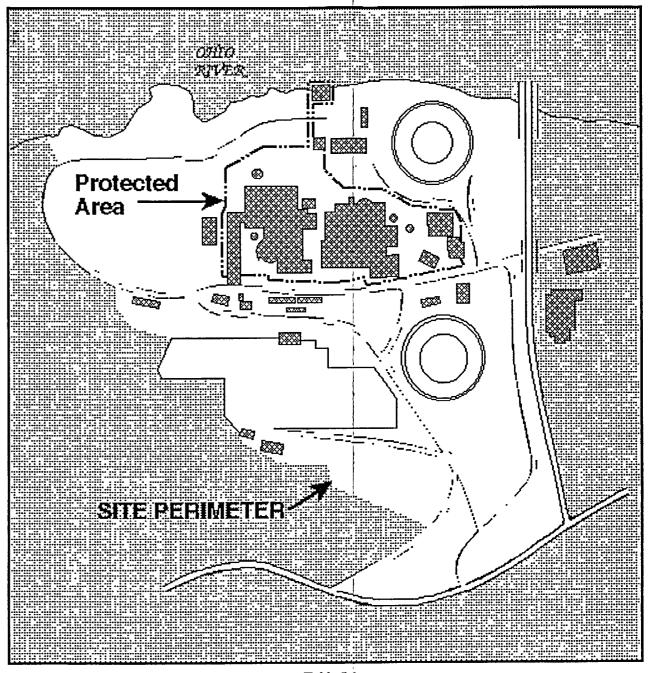


Table 5-1

Plant Structures Associated With Tornado/Hi Wind and Aircraft EALs

Containment Building
Safeguards Building
Primary Aux. Building
Fuel Handling Building
RWST (1QS-TK-1)
CO2 Storage/PG Pp Rm
Service Building (incl. FW Reg Vlv Rm)
Diesel Generator Building
Main Intake Structure
Demin. Water Sto. (1WT-TK-10)

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE" ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: 'See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

1 , 41 =

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i e, the basis of the declaration) All classifications are based on an assessment (ie, determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS)

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Reactor Trip; (4) Safety Injection System Activation Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: .The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

- -

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plan structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3)

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates. and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

		٠.					
					ı		
				٠			
			ı				
		٠	•				
		H	ч				
		1			7		
		٠	٠		١		
		,	-	P	4		
		1		4	٩		
		ı.			d		
		7	7	5	ì		
		ľ	-	-	4		
				L	ч		
		٠			Н		
		ı	_				
				,	7		
į		c		4	н		
į					7		
	Z,						
		r	3				
		ľ	-		7		
		ı		201	1	100	
			2	ļ	1		
		l		7			
		l	_	-			
			Ź				
			Ź				
						The state of the s	
	"我们的就是,这个是一个的,我们是我们是不是不是是一个的人,我们们们的人们的人,也不是一个人,我们是一个人,我们就会					and the contract of the contra	

GBNBRAL

		Aircraft/Projectile Crash
_1	Mode	Criterion / Indicator
		Refer to Tab I "Fission Product Barrier Matrix"
	^ 1	
2	` l	,
	}	1
7	-	
	-	
	:	·
	Ì	
	,	At 3
	1	• 1
	i	,
		Refer to Tab 1 "Fission Product Barrier Matrix"
	• •	
	, , ,	
		j
		4 S
	,	rt ,
		· [
	, ,	
	·11	
		·
	١,	
	. ,	
	T 7	The state of the s
		Aircraft or PROJECTILE impacts (strikes)
		any plant structure listed in Table 5-1 resulting
		in structural damage
		`[1 and 2]
		li mi
		1. Plant personnel report aircraft or
	ATT	PROJECTILE has impacted any structure
	, ALL	listed in Table 5-1 on previous page
	•	
		2. [a or b]
	. '	a. Confirmed report of any VISIBLE
	-	
	• ,	_ DAMAGE to specified structures
		- b. Control Room indications of degraded
	1	- b. Control Room indications of degraded safety system or component response
		- b. Control Room indications of degraded
	, , = q	b. Control Room indications of degraded safety system or component response (within listed structures) due to event
	* * * * * *	b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within
	* * * * * * * * * * * * * * * * * * * *	b. Control Room indications of degraded safety system or component response (within listed structures) due to event
	* * * * * * * * * * * * * * * * * * *	b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER
	2	- b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER 1. Plant personnel report aircraft crash or
	2	b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER 1. Plant personnel report aircraft crash or PROJECTILE impact within the SITE
		b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER 1. Plant personnel report aircraft crash or
	ALL	b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER 1. Plant personnel report aircraft crash or PROJECTILE impact within the SITE
	ALL	 b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER Plant personnel report aircraft crash or PROJECTILE impact within the SITE PERIMETER (refer to Figure 5-A on
	ALL	 b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER Plant personnel report aircraft crash or PROJECTILE impact within the SITE PERIMETER (refer to Figure 5-A on
	ALL	 b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER Plant personnel report aircraft crash or PROJECTILE impact within the SITE PERIMETER (refer to Figure 5-A on
	ALL	 b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER Plant personnel report aircraft crash or PROJECTILE impact within the SITE PERIMETER (refer to Figure 5-A on
	ALL	 b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER Plant personnel report aircraft crash or PROJECTILE impact within the SITE PERIMETER (refer to Figure 5-A on
	ALL	 b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER Plant personnel report aircraft crash or PROJECTILE impact within the SITE PERIMETER (refer to Figure 5-A on
	ALL	 b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER Plant personnel report aircraft crash or PROJECTILE impact within the SITE PERIMETER (refer to Figure 5-A on
	ALL	 b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER Plant personnel report aircraft crash or PROJECTILE impact within the SITE PERIMETER (refer to Figure 5-A on
	ALL	 b. Control Room indications of degraded safety system or component response (within listed structures) due to event Aircraft crash or PROJECTILE impact within the SITE PERIMETER Plant personnel report aircraft crash or PROJECTILE impact within the SITE PERIMETER (refer to Figure 5-A on

· E	5.4	River Level HIGH
. []	Mode	Criterion / Indicator
		Refer to Tab 1 "Fission Product Barrier Matrix"
		;
ŀ	ĺ	
		•
-		
ļ	1	
1		•
- -	1	
L		
		Refer to Tab 1 "Fission Product Barrier Matrix"
`		
	ļ	
ļ		,
ļ		
-		
ļ		•
		1
	Í	
1	, ,	,
-	. '	River water level > 705 Ft mean sea level
.		[1 or 2]
	•	1. 1LR-CW-101, if accessible, indicates >705 mean sea level
- 1	r	mean sea level
-		2. National Weather Bureau (412-644-2882) or
1	ALL	Montgomery Lock (724-643-8400) reports
		Montgomery Lower Pool stage height >52.48 Ft
		,
		Water Many Sea Land - stock height + 652 52 Fe
		Note: Mean Sea Level = stage height + 652.52 Ft
- 1	1	
<u> </u>	1)	River water level >700 Ft Mean Sea Level
	,	[1 or 2]
		1. 1LR-CW-101 indicates > 700 Ft Mean Sea
- 1		Level
ļ	ALL	
İ	ALL	2. National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) reports
ł		Montgomery Lock (724-643-8400) reports Montgomery Lower Pool stage height
ļ		>47.48 Ft
- [
		1
		Note: Mean Sea Level = stage height + 652.52 Ft

	River Level LOW
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
,	Refer to Tab 1 "Fission Product Barrier Matrix"
	River water level <648.6 Ft Mean Sea Level [1 or 2]
	1. 1LR-CW-101 indicates < 648 6 Ft Mean Sea
	Level
	2. National Weather Bureau (412-644-2882) or
	Montgomery Lock (724-643-8400) Reports
ALL	Montgomery Lower Pool stage height <-3.92 Ft
	Note: Mean Sea Level = stage height + 652.52 Ft
	17010. Ivican Sca Level – Stage neight + 032.32 Pt
	Not Applicable
	noi applicuote

5.6	Watercraft Crash	EPP/I-1
Mode	Criterion / Indicator	
	Refer to Tab 1 "Fission Product Barrier Matrix"	GENERAL
2	Refer to Tab I "Fission Product Barrier Matrix"	SITTE AREA
-	Refer to Tab 1 "Fission Product Barrier Matrix"	
		SINGRAL
ALL	Watercraft strikes primary intake structure and results in a reduction of Reactor Plant or Turbine Plant River Water Flow [1 and 2] 1 Plant personnel report a watercraft has struck the primary intake structure 2 [a or b] a RPRW flow reduction indicated by sustained pressure reduction to <20 psig	
	on IPI-RW-113A and/or 113B b. TPRW flow reduction indicated by sustained pressure reduction (Ann A6-118 "RAW Water Pump Disch Press Low" <15 psig)	USI

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS)

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of force.

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which VITAL AREA is any area within the PROTECTED AREA which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints. minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included

contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

, , , , , , ,	· r	The second secon
	6.1	Loss of Shutdown Systems
, , , , ,	Mode	Criterion / Indicator
	, ,	Refer to Tab 7.1 "Gaseous Effluents"
	k y	
		,
		,
\sim	.1 +	
3		(t
Z	rs ,	,
	•	, , , , , , , , , , , , , , , , , , , ,
9		
	+	, , , ,
		,
		Refer to Tab 7.1 "Gaseous Effluents"
		,
		′ '
	1	
	•	Ł
	• ,	4
		4
S		~ ,
		,
		Inability to maintain unit in cold shutdown
		[1 and 2]
		1. UNPLANNED Loss of RHR or CCR or
	,1 ,	RPRW
	C 1	2. [a or b or c]
	¹ 5	a. Core exit thermocouples (CETC) (if available) indicate the temperature has
	6	increased >10 F and has exceeded 200F.
	-	b. (w/ RHR in service) RHR inlet
V	,	temperature has increased >10 F and has exceeded 200 F.
		c. (w/o CETCs or RHR), loss has exceeded
	`	30 minutes or there is evidence of
	i i i	boiling in the Rx vessel.
		UNPLANNED loss of any function needed for
		cold shutdown that results in a core exit
4	1 4	temperature increase of more than 10 F
	r	[1 and 2]
15	,	1. UNPLANNED Loss of RHR or CCR or
	5 6	RPRW .
		2. [a or b or c]
X	ŧ	a. Core exit thermocouples (CETC) (if
	, ,	available) indicate the temperature has
		increased > 10F b. (W/ RHR in service) RHR inlet
7		temperature has increased >10 F
		c. (w/o CETCs or RHR), loss has exceeded
	L	15 minutes

0.2	RCS Inventory - Shutdown
Mode ·	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	,
5 6	Loss of water level in the reactor vessel that has or will uncover fuel in the reactor vessel. [I and 2] 1. [a or b] a. Loss of RHR or CCR or RPRW b. Loss of RCS Inventory with inadequate makeup
,	[a and b] a Ops personnel report LI-1RC-480, or LI-1RC-482C RCS level instrumentation (if available) in the Control Room indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	`Not Applicable
f	
-	
,	Loss of Reactor Coolant System Inventory with inadequate make-up [1 and 2]
5 6	Ops personnel report LI-1RC-480, or LI-1RC-482C RCS level instrumentation in the Control Room indicates a level drop to less than 14.5 inches
	2. Ops personnel report inability to make-up

The state of the state of the state of

6.3	Loss of AC (Shutdown)
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 7.1 "Gaseous Effluents"
	UNPLANNED loss of offsite and onsite AC power for >15 minutes]
	1. AE and DF 4KV emergency buses not energized from Unit 1 sources for >15 minutes
5 6 De-	
Fuel	Also refer to Tab 6.1 "Loss of Shutdown Systems"
	UNPLANNED loss of all offsite power for >15
	minutes [1 and 2]
	1. 1A and 1D 4KV normal buses de-energized for >15 minutes
5 6 De-	2. Either diesel generator is supplying power to its respective emergency bus
Fuel	

Mode	Loss of DC (Shutdown) Criterion / Indicator	EPP/I-1a At
IVIOUS	Refer to Tab 7.1 "Gaseous Effluents"	
اِ		
1.		\mathbf{Z}
,		3
′ •		Z
	D	
	Refer to Tab 7.1 "Gaseous Effluents""	
		V
ļ		
		(a)
-		SI
1.		
}		
	Refer to Tab 6 1 "Loss of Shutdown Systems"	
1		
1		
		五
-		
1		A
	UNPLANNED loss of the required train of DC power for >15 minutes	
ļ	[1 or 2]	Z
.*	1. Voltage <110.4 VDC on DC buses 1-1 and 1-	
	3 for >15 minutes if train A is the priority	4
5	train 2. Voltage <110.4 VDC on DC buses 1-2 and 1-	
6	4 for >15 minutes if train B is the priority	
De- Fuel	train	D
, uoi		JS
12		H
	1	

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these 'assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Reactor Trip; (4) Safety Injection System Activation Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of force.

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures)

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plar structure. The source of the projectile may be onsite or offsite. Potentia. for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3)

> The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

> STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

> TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

> UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

HOSTAGE: A person or object held as leverage against the station to With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

> VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability. the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

> VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering Surface blemishes (e.g., paint chipping, scratches) should not be included.

> VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

,	6.5	Fuel Handling
,,1 'y	Mode	Criterion / Indicator
5		Refer to Tab 7.1 Gaseous Effluents"
HONDRA	· • ,	
	, ,	
	٠,٠	Refer to Tab 7.1 Gaseous Effluents"
V	,	
		,
	1,	, , ,
200		, ,
SI	,,	
	, , , , , , , , , , , , , , , , , , ,	
		Major damage to irradiated fuel; or loss of water level that has or will uncover irradiated fuel outside the reactor vessel [1 and 2]
2	ALL	1. VALID Hi-Hi alarm on RM-RM-203 or RM-RM-207 or RM-VS-103 A/B or RM-VS-104 A/B
(CEN		2. [a or b] a Plant personnel report damage of irradiated fuel sufficient to rupture fuel rods
7		b. Plant personnel report water level drop has or will exceed available makeup capacity such that irradiated fuel will be uncovered Refer to Tab 6 2 for In-vessel Uncovery
MAINE		UNPLANNED loss of water level in spent fuel pool or reactor cavity or transfer canal with fuel remaining covered [1] and 2 and 3]
10 V	ALL	Plant personnel report water level drop in spent fuel pool or reactor cavity, or transfer canal
		2. VALID Hi-Hi alarm on RM-RM-203 or RM-RM-207
S	; - ,	3. Fuel remains covered with water

0.0	Inadvertent Criticality
Mode	Criterion / Indicator
1	Refer to Tab 7.1 Gaseous Effluents"
	·
1	(
	'
,	
	Followste"
	Refer to Tab 7.1 Gaseous Effluents"
	,
	,
	ļ,
	• • •
	Inadvertent reactor criticality
	Nuclear instrumentation indicate unanticipated sustained positive startup rate
,	
3 4 5 6	
5	
6	
1	
1	,
ļ	Not Applicable
1	
1	
1	
1	

INTENTIONALLY BLANK

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric -values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS)

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100 Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of force

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures)

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a r structure. The source of the projectile may be onsite or offsite. Pote for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load, (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason inhalation or skin contact (e.g., chlorine)

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

VITAL AREA is any area within the PROTECTED AREA wh contains equipment, systems, components, or material, the failu. destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

· ''	7.1	Gaseous Effluents
	Mode	Criterion / Indicator
3	,	EAB dose resulting from an actual or imminent Release of gaseous radioactivity that exceeds 1000 mR TEDE or 5000 mR child thyroid CDE for the actual or projected duration of the release [1 or 2 or 3] 1. A VALID gas effluent rad monitor reading
BNBRA	All	exceeds the values in Column 4 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded
NEW.	** **	2. Field survey results indicate EAB dose >1000 mR β-γ for the actual or projected duration of the release
	, •	3. EPP dose projection results indicate EAB dose >1000 mR TEDE or >5000 mR child thyroid CDE for the actual or projected duration of the release
) { ~	EAB dose resulting from an actual or imminent release of gaseous radioactivity that exceeds 100 mR TEDE or 500 mR child thyroid CDE for the actual or projected duration of the release [I or 2 or 3]
und arrba	, All	1. A VALID gas effluent rad monitor reading exceeds the values in Column 3 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded
ON.	6 3 1 (f	2. Field survey results indicate EAB dose >100 mR β-γ for the actual or projected duration of the
8		3. EPP dose projection results indicate EAB dose >100 mR TEDE or >500 mR child thyroid CDE for the actual or projected duration of the release
	,	Any UNPLANNED release of gaseous radioactivity that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2 or 3]
LERT	All	1. A VALID gas effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded
A	4 - '	2. Field survey results indicate >10 mR/hr β-γ at the EAB for >15 minutes
		3 EPP dose projection results indicate EAB dose >10 mR TEDE for the duration of the release
INMI	; ;	Any UNPLANNED release of gaseous radioactivity that exceeds 2 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 60 minutes [1 or 2 or 3]
AU ON	:: :: All	1. A VALID gas effluent rad monitor reading exceeds the values in Column 1 of Table 7-1 for >60 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded
)Su		2. Field survey results indicate >0.1 mR/hr β-γ at the EAB for >60 minutes
Z		3. EPP dose projection results indicate EAB dose >0.1 mR TEDE for the duration of the release

	• 1	1 1 1 X	,	
	_		Liquid Effluents Criterion / Indicator	1) .`
or nal or imminent nat exceeds 1000 oid CDE for the elease	,	Mode	Not Applicable	1
monitor reading of Table 7-1 for ctions within this CRITERION is				
B dose >1000 mR I duration of the	.0	,	-	7
dicate EAB dose child thyroid CDE on of the release	,			`
ual <u>or</u> imminent t exceeds 100 mR E for the actual <u>or</u>	ji		Not Applicable	,
monitor reading 3 of Table 7-1 for ections within this CRITERION is			,	•
AB dose >100 mR d duration of the			,, - te	, ,
ndicate EAB dose child thyroid CDE on of the release	. ,			,
eous radioactivity ical Specification inual Limit for 15			Any UNPLANNED release of liquid radioactivity that exceeds 200 times Technical Specifications 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2]	
1 monitor reading 2 of Table 7-1 for jections within this e CRITERION is	7 .	All	 A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 	
10 mR/hr β-γ at the icate EAB dose >10 he release			 Sample results exceed 200 times the Technical Specification 6 8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid radioactivity >15 minutes in duration 	r
scous radioactivity lical Specification anual Limit for 60	i.	() () () () () () () () () ()	Any UNPLANNED release of liquid radioactivity to the environment that exceeds 2 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 60 minutes [1 or 2]	
d monitor reading 1 of Table 7-1 for ojections within this ne CRITERION is		All	1. A VALID liquid effluent rad monitor reading exceeds the values in Column 1 of Table 7-1 for >60 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded	
0.1 mR/hr β-γ at the indicate EAB dose on of the release			Sample results exceed 2 times Technical Specification 6 8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid radioactivity >60 minutes in duration	
	Į	1	-1 -1	1

TABLE 7-1 EFFLUENT RADIAITON MONITOR EAL'S

EPP/I-1a Attachment 1

NOTE: The values below, if exceeded, indicate the need to perform the specified dose projection/assessment, as listed at the bottom of each column. If the assessment can not be completed within 15 minutes (60 minutes per UE), the declaration shall be made based on the VALID reading.

NOTE These monitors have the ability to divert or terminate effluent flow. Ensure that a release is in progress prior to using the EAL

	Column	ı İ	Colum		Column Site	3	Column Genera	
	UE		Aler		Site		Genera	
a RWDA (Batch Release) is Applicable	2x the ODC	M Limit	200x the ODO			1	/-	
RM-1LW-104	9 68E+05	cpm	n/a	cpm	n/a	cpm	n/a	cpm
RM-1LW-116	n/a	cpm	n/a	cpm	n/a	cpm	n/a	cpm
RM-1VS-101B (RBC Purge)	2.40E+03	cpm	2.40E+05	cpm	n/a	cpm	n/a	срп
RM-1VS-109 Channel 5 (RBC Purge)	2.86E+03	cpm	2.86E+05	cpm	n/a	cpm	n/a	cpn
RM-1VS-110 Channel 5 (RBC Purge)	1.33E+04	cpm	n/a	cpm	n/a	cpm	n/a	cpn
RM-1GW-108B (GWDT)	7.86E+05	cpm	'n/a	cpm	n/a	cpm	n/a	cpn
RM-1GW-100B (GWDT)	n/a	cpm	n/a	cpm	n/a	cpm_	n/a	cpn
	2x the ODC		200x the OD					
or All Other Unplanned Releases	2x tile ODC	WI Limit	Zook inc ob					
Auxiliary Building Ventilation System								
also called Ventilation Vent)			5000005		-/2	anm	n/a	cpn
RM-1VS-101B	6 00E+03	cpm	6.00E+05	cpm	n/a	cpm	n/a	cpn
RM-1VS-109 Channel 5	2.94E+03	cpm	2.94E+05	cpm	6.01E+05	cpm	6.69E+02	•
RM-1VS-109 Channel 7	n/a	cpm	n/a	cpm	6 69E+01	cpm		cpn
RM-1VS-109 Channel 9	n/a	cpm	n/a	cpm	n/a	cpm	1 32E+01	cpn
RM-1VS-111 HR (SA-9)	n/a	cpm	n/a	cpm	n/a	cpm	n/a	cpr
RM-1VS-111 LR (SA-10)	n/a	cpm	n/a	cpm	7.32E+03	cpm	7.32E+04	cpr
14.1.1.8 11.1 E11 (E11 14)		cpm	1 1					
Reactor Building/SLCRS Vent System		-						
also called Elevated Release)								
RM-1VS-107B	1.29E+04	cpm	n/a	cpm	n/a	cpm	n/a	cpi
RM-1VS-110 Channel 5	6.76E+03	cpm	6.76E+05	cpm	9.08E+05	cpm	n/a	cpı
RM-IVS-110 Channel 7	n/a	cpm	n/a	cpm	7.98E+01	cpm	7.98E+02	cpi
RM-1VS-110 Channel 9	n/a	cpm	n/a	cpm	n/a	cpm	2.28E+02	срі
	n/a	cpm	n/a	cpm	n/a	cpm	1.53E+01	cpr
RM-1VS-112 HR (SA-9)	n/a	cpm	n/a	cpm	1.19E+04	cpm	1.19E+05	cpi
RM-1VS-112 LR (SA-10)	IVa	Cpiii		•р		•		•
Gaseous Waste/Process Vent System					n/a	com	n/a	cp:
RM-1GW-108B	n/a	cpm	n/a	cpm	n/a	cpm	n/a	ср
RM-1GW-109 Channel 5	n/a	cpm	n/a	cpm	n/a	cpm	n/a	cp:
RM-1GW-109 Channel 7	4 80E+03	cpm	4 80E+05	cpm	7.90E+05	cpm	I.	_
RM-1GW-109 Channel 9	n/a	cpm	n/a	cpm	1 83E+04	cpm	1.83E+05	ср
RM-1GW-110 HR (SA-9)	n/a	cpm	n/a	cpm	1.59E+04	cpm	1.59E+05	ср
RM-1GW-110 LR (SA-10)	n/a	cpm	n/a	cpm	n/a	cpm	n/a	ср
Main Steam Reliefs								
RM-1MS-101	n/a	cpm	n/a	cpm	n/a	cpm	8.00E+01	сp
141-11419-101	""	-F		•				
Liquid Effluent Pathways	0.600.05		1 100	com	n/a	cpm	n/a	ср
* RM-1LW-104	9.68E+05	cpm	n/a	cpm	n/a	cpm	n/a	cp
* RM-1LW-116	n/a	cpm	n/a	cpm	1	•	n/a	ср
RM-1RW-100	5.14E+04	cpm	n/a n/a	cpm cpm	n/a n/a	cpm cpm	n/a	cp
	2.44E+04	cpm						

Minimum Release Duration	60 minutes	15 minutes	15 minutes	15 minutes
Assessment Method for Gaseous Release	1/2-HPP-03.06 012 1/2-HPP-03 06 013	1/2-HPP-03.06.012 1/2 ¹ HPP-03.06.013 EPP/IP-2.6 x	ЕРР/ІР-2 6.х	EPP/IP-2.6 x
Assessment Method for Liquid Release	EPP/IP-2.7 EPP/IP-2.7.1	EPP/IP-2.7 EPP/IP-2.7.1		

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs whic' AREA EMERGENCY: See EAL 47

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently. profesting station operations or activities at the site

Each CRITERION identifies the emergency condition and any numeric values which define that condition (ie, the basis of the declaration). All classifications are based on an assessment (i.e., determination that the ...condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS)

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100 Refer to

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to With specific regard to radioactivity releases, a release of radioactivity is ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 VALID: An indication or report or condition is considered to be VALID

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

minutes (unless otherwise noted) of sufficient indications being available when it is conclusively verified by (1) an instrument channel check, or (2) to Control Room Operators that an Emergency Action Level (EAL) has indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is improvement in the applicable parameters (e.g., increasing trend in reactor sufficient to cause concern regarding the continued operability or vessel water level (RVLIS full range) and/or decreasing trend on core reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

> VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

e	7-:	2
	1	7ith EAL 7.3
u	**	THI EAL 7.5
R		READING
		>100 mR/hr general area
		>100 mR/hr general area
		>100 mR/hr general area
-		>100 mR/hr general area
		>100 mR/hr general area
		>100 mR/hr general area
	}	>100 mR/hr general area
•		>100 mR/hr general area
	<u> </u>	>100 mR/hr general area
	_	>100 mR/hr general area
		Boneral area
		>5 R/hr general area
		>100 mR/hr general area
		>100 mR/hr general area
	Ī	>100 mR/hr general area
		>100 mR/hr general area
		>100 mR/hr general area
NA HARANGE		The second secon
EX	CL	USION AREA
	ij.	
	5	
/		
13	7	
1	1	
1		
1	N	
	ξη	
		Owner Controlled
//		Toperty State Control of the Control

7.4 Mode	Fuel Handling Criterion / Indicator
IVIOUC	Refer to Tab 7 1 "Gaseous Effluents"
	,
•	
	**
1	
	Refer to Tab 7 1 "Gaseous Effluents"
	They to the first success against a
	,
t	
	Major damage to irradiated fuel; or loss of water
	level that has or will uncover irradiated fuel outside
	the reactor vessel [1 and 2]
	1. VALID Hi-Hi alarm on RM-RM-203 or RM-RM- 207 or RM-VS-103 A/B or RM-VS-104 A/B
	2. [a or b]
1	a Plant personnel report damage of irradiated fuel
All	sufficient to rupture fuel rods b Plant personnel report water level drop has or
*	will exceed available makeup capacity such that irradiated fuel will be uncovered
	Refer to Tab 6 "Shutdown Systems" for In-vessel Uncovery
1	UNPLANNED loss of water level in spent fuel pool or
,	reactor cavity or transfer canal with fuel remaining covered [1 and 2 and 3]
	Plant personnel report water level drop in spent fuel pool or reactor cavity, or transfer canal
ALL	2 VALID Hi-Hi alarm on RM-RM-203 or RM-RM- 207 or
	Fuel remains covered with water

31 1 1

Radiation Levels

7 1 "Gaseous Effluents"

Criterion / Indicator Refer to Tab 1 "Fission Product Barrier Matrix" or Tab

Refer to Tab 1 "Fission Product Barrier Matrix" or Tab 7.1 "Gaseous Effluents"

UNPLANNED increases in radiation levels within the facility that impedes safe operations or establishment

I. VALID area radiation monitor readings or survey results exceed 15 mR/hr in the Control Room or

a. VALID area radiation monitor readings or

b. Access restrictions impede operation of systems necessary for safe operation or the ability to establish or maintain cold shutdown

UNPLANNED increase in radiation levels within the

1. VALID area radiation monitor readings increase by a factor of 1000 over normal levels for >15

Note: In either the UE or ALERT EAL, the ED must determine the cause of increase in radiation levels and review other CRITERIA/INDICATORS for applicability (e g, a dose rate of 15 mR/hr in the Control Room could be caused by a release associated with a

survey results exceed values listed in Table

PAF (on U2 DRMS) for >15 minutes

or maintenance of cold shutdown

See Note Below

minutes

more significant event).

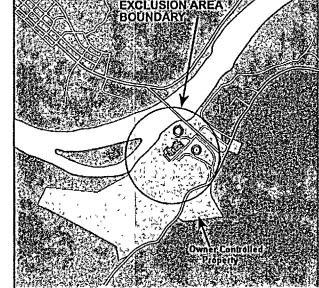
[] or 2]

Mode

Table Areas Associated

LOCATION	INDICATOR	READING
Chem Sample Panel (735' PAB)	RM-RM-212	>100 mR/hr general area
PASS Sample Pnl (735' PAB)	Survey Results	>100 mR/hr general area
Manual Valve Chg. Pump Discharge (722' PAB)	Survey Results	>100 mR/hr general area
Safeguards 752' Valves 1HY-110, 1HY-111, 1HY-196, 1HY-197	Survey Results	>100 mR/hr general area
767' PAB SA9/SA10 Gas Monitors	Survey Results	>100 mR/hr general area
752' PAB SPING Monitor	RM-RM-210	>100 mR/hr general area
752' Safeguards Valves 1RS-157, 1RS-159	Survey Results	>100 mR/hr general area
735' West Cable Vault Valves, 11A-90, 1HY-101, 1HY-102, 1HY-103, 1HY-104	Survey Results	>100 mR/hr general area
735' Safeguards (1QSS, AFW)	Survey Results	>100 mR/hr general area
Main Steam Valve Room (752' Safeguards)	Survey Results	>100 mR/hr general area
A Penetrations (722' Safeguards)	Survey Results	>5 R/hr general area
East Cable Vault (735' Safeguards)	Survey Results	>100 mR/hr general area
Normal 4kV Switchgear	Survey Results	>100 mR/hr general area
Process Instrm. Room	Survey Results	>100 mR/hr general area
AE/DF Switchgear	Survey Results	>100 mR/hr general area
EDG 1-1, 1-2	Survey Results	>100 mR/hr general area

Figure 7-A **EXCLUSION AREA BOUNDARY**



ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100 Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of force.

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core reliability of affected safety structure, system, or component. Example thermocouple temperatures)

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip: (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e g, chlorine)

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates. and/or discharge of incorrect tank)

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability. the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses Damage is sufficient to cause concern regarding the continued operability or damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering Surface blemishes (e.g., paint chipping, scratches) should not be included.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

RECOGNITION AND CLASSIFICATION OF EMERGENCY CONDITIONS

CONTROLLED BVPS UNIT 2

EFFECTIVE INDEX

Issue 8 Rev.	0 1 2 3 4 5 6 7	OSC Approved OSC Approved OSC Approved OSC Approved OSC Approved Non-Safety Related OSC Approved	3-12-87 8-13-87 10-8-87 2-9-88 2-9-89 3-15-89 4-18-89 4-12-90
Issue 9 Rev.	0 1 2 3	Non-Intent Revision OSC Approved Non-Intent Revision OSC Approved	10-9-90 4-4-91 12-29-92 1-27-93
Rev.	5	OSC Approved	12-9-93
	6	OSC Approved	10-7-94
	7	OSC Approved	7-22-98
	8	Non-Intent Revision	12-31-99
Rev.	0	OSC Approved Non-Intent Revision Simple Change	4-17-01
Rev.	1		12-12-01
Rev.	2		8-28-02

TABLE OF CONTENTS

- A. Purpose
- B. References
- C. Responsibilities
- D. Action Levels/Precautions
- E. Procedure
- F. Final Condition
- G. Attachments

A. PURPOSE

1.0 This procedure describes the immediate actions to be taken to recognize and classify an emergency condition.

a got the same of the same of the

- 2.0 This procedure identifies the four emergency classifications and emergency action levels.
- 3.0 Reporting requirements for non-emergency abnormal events are provided.

B. REFERENCES

- 1.0 Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures.
- 2.0 Title 10, Code of Federal Regulations Part 50, Appendix E. 200 September 200 Septe
- 3.0 NUREG-0654/FEMA-REP-1, <u>Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants</u>
- 4.0 Beaver Valley Power Station Operating Manual
 - 5.0 NUMARC/NESP-007, Methodology for Development of Emergency Action Levels
 - 6.0 ERS-SFL-91-041-REV 1 (U1/U2 Containment Monitor Readings due to LOCA's with various Source Terms).
 - 7.0 Condition Report #992522 Stage 1845 Condition Report #99252 Condit
 - 8.0 Condition Report #991327-1
 - 9.0 Unit 1 Technical Specification Amendment 204 and Unit 2 Technical Specification Amendment 101.
 - 10.0 EPPOS #2 "Emergency Preparedness Position (EPPOS) on Timeliness of Classification of Emergency Conditions".
 - 11.0 NEI 99-02 "Regulatory Assessment Performance Indicator Guideline"

12.0 Condition Report #00-3939

- 13.0 Condition Report #99-1234
- 14.0 Condition Report #02-02125-02
- 15.0 Calculation Package No. ERS-ATL-93-021
- 16.0 Calculation Package No. ERS-HHM-87-014
- 17.0 Calculation Package No. ERS-SFL-86-005
- 18.0 Calculation Package No. ERS-SFL-99-014

C. RESPONSIBILITY

21.11

The Emergency Director (Shift Manager, until properly relieved by a designated alternate) has the responsibility and authority for the performance of the actions prescribed in this procedure.

D. <u>ACTION LEVELS/PRECAUTIONS/GUIDANCE</u>

- 1.0 ACTION LEVELS
 - 1.1 An off-normal event has occurred.
 - 1.2 An action step in a plant operating or emergency operating procedure refers to this procedure for classification of the indicated plant condition.

STATE AND STATE OF THE STATE OF THE

2.0 PRECAUTIONS

- 2.1 The Emergency Director must review all applicable EALs to ensure that the event is properly classified since a given INDICATOR may be associated with more than one CRITERION. A particular INDICATOR omitted from the fission product barrier matrix may be addressed as an event-based EAL in one of the other tabs. Event-based EALs may escalate to the fission product barrier matrix. The Emergency Director may need to consider related events (e.g., fire and explosion) or the possible consequences of the event (e.g., fire in an MCC resulting in loss of AC) in classifying an event.
- 2.2 Continued surveillance and assessment of plant conditions are necessary to ensure that the emergency classification is appropriately revised as conditions change, or as more definitive information is obtained.
- 2.3 If there is any doubt with regard to assessment of a particular EAL, the EAL Basis Document (i.e., Chapter 4 of the EPP) entry for that EAL can be reviewed. Classifications shall be consistent with the fundamental definitions of the four emergency classifications (tabulated in Tab 4.7).

2.4 The Emergency Director shall take whatever mitigative or restoration actions are necessary to protect public health and safety. The Emergency Director shall not reject courses of action solely on the basis that the action would result in escalation of the emergency classification.

3.0 **GUIDANCE**

The state of the s

ひとしょく フィング (位) 掛きませる きょうしょ こんぱん しょうき

- 3.1.1 There are two types of Emergency Action Levels included in this procedure: 1 to 100 miles
- The Will garage 3.1.1.1 <u>Barrier-Based EALs:</u> These EALs address conditions that represent potential losses, or losses, of one or more of the Fuel Clad, RCS, or Containment fission product barriers. INDICATORs of these conditions include CRITICAL SAFETY FUNCTION status, fundamental indications such as subcooling or reactor vessel water level, or auxiliary indications such as containment radiation monitor readings. Classifications are based on the number of barriers lost or potentially lost:
 - 3.1.1.2 Event-Based EALs: These EALs address discrete conditions or events that are generally precursors to fission product barrier degradation, or are otherwise degradations in the level of safety of the plant. Events may be external (e.g., severe weather, earthquakes, loss of offsite power) internal (e.g., fires, explosions, instrumentation failure) or may involve radioactivity releases.

3.1.2 The EALs are grouped by recognition category as follows:

Tab 1	Fission	Product	Rarrier	Matrix
I aU I	1.1221011	1 I U U U C L	Daniel	Mania

Tab 2 System Degradation

50 600

Tab 3 Loss of Power

the beginning to an amostica

Tab 4 Hazards and ED Judgement

Tab 5 Destructive Phenomena

Tab 6 Shutdown Systems Degradation

Tab 7 Radiological

- 3.1.3 Each of the EAL tabs includes one or more columns that address one initiating condition (e.g., fires). Each column provides EALs for each of the four emergency classifications, as applicable. A notation adjacent to each EAL identifies the plant operating mode(s) for which the EAL is applicable.
 - 3.1.4 Each EAL is comprised of a CRITERION, printed in bold type, and one or more INDICATORs. The purpose of each is as follows:
 - 3.1.4.1 CRITERION: identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration) All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.
 - 3.1.4.2 INDICATOR: is available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Upon occurrence of one or more indicators, the Emergency Director performs an assessment against the criterion. Depending on the particular condition, this assessment may be as simple as a review of the criterion, an instrument channel check, or a detailed calculation as in the case of a radioactivity release.
 - 3.1.4.3 Inherent in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

3.1.4.4 The INDICATORs were selected with the objective of providing unambiguous guidance to assist with assessment of the CRITERION. There may be other INDICATORs not envisioned by the writers of this procedure that, in the judgment of the Emergency Director, correspond to the CRITERION. In these cases, the Emergency Director should base the declaration on engineering judgment, using the supplied INDICATORs as examples of the severity of the condition.

¹ 3.2 Common Plant Conditions

- 3.2.1 <u>IF</u> an event occurs such that both reactor units are affected, e.g., tornado, toxic gas offsite, etc., <u>THEN</u> the senior Shift Manager shall make the appropriate classification and assume the role of Emergency Director.
- 3.2.2 <u>IF</u> the common plant condition results in a higher emergency classification at one reactor unit, <u>THEN</u> the Shift Manager from that unit shall make the appropriate classification and assume the role of Emergency Director.

3.3 Mode Applicability

- 3.3.1 The plant operating mode that existed at the time that the event occurred, prior to any protective system or operator action initiated in response to the condition, is compared to the mode applicability of the EALs.
- 3.3.2 <u>IF</u> an event occurs, and a lower or higher plant operating mode is reached before the classification can be made, <u>THEN</u> the classification shall be based on the mode that existed at the time that the event occurred.
- 3.3.3 The fission product barrier matrix is applicable only to those events that occur at mode 4 or higher. An event that occurs in modes 5 or 6 shall not be classified using the fission product barrier matrix, even if mode 4 is entered due to subsequent heatup. In these cases, Tab 6, Shutdown Systems Degradation, shall be used for classification.

•

3.4 Transient Events

- 3.4.1. For some EALs the existence of the event, without regard to duration, is sufficient to warrant classification. In these cases, the appropriate emergency classification is declared as soon as the Emergency Director assessment concludes that the CRITERION is met.
 - 3.4.2 Some EALs specify a duration of occurrence. For these EALs the classification is made when Emergency Director assessment concludes that the specified duration is exceeded or will be exceeded (i.e., condition can not be reasonably rectified before the duration elapses), whichever is sooner.
 - 3.4.3 IF a plant condition meeting an EAL CRITERION is rectified before the specified duration time is exceeded, <u>THEN</u> the event is <u>NOT</u> classified by that EAL. Lower severity EALs, if any, shall be reviewed for possible applicability in these cases.
 - 3.4.4 <u>IF</u> a plant condition meeting an EAL CRITERION is <u>NOT</u> classified at the time of occurrence, but is identified well after the condition has occurred (e.g., as a result of routine log or record review) <u>AND</u> the condition no longer exists, <u>THEN</u> an emergency shall <u>NOT</u> be declared. However, reporting under 10 CFR 50.72 may be required. Such a condition could occur, for example, if a followup evaluation of an abnormal condition uncovers evidence that the condition was more severe than earlier believed.
- 3.4.5 IF an emergency classification was warranted, but the plant condition has been rectified (such that the CRITERION is no longer met) prior to declaration and notification, <u>THEN</u> the following guidance applies:
 - 3.4.5.1 For transient events that would have been declared as UNUSUAL EVENTS, no emergency is declared. However, the event shall be reported to those local, state, and Federal agencies designated to receive the initial notification form. These agencies shall be told that the UNUSUAL EVENT condition was rectified upon detection and no emergency is being declared.

End to the first of the

- 3.4.5.2 For transient events that would have been declared as an ALERT, SITE AREA EMERGENCY, or GENERAL EMERGENCY, the event shall be declared and the emergency response organization activated. The EAL CRITERIA for these events has been set at a threshold that warrants declaration even if the initiating condition has been rectified. Termination can occur when the criteria of EPP/IP-6.2, Termination of the Emergency and Recovery can be satisfied.
 - 3.5 Declaration Timing and Assessment CONTRACTOR AND THE SECOND PROPERTY OF A PROPERTY.

Emergency conditions shall be classified as soon as the Emergency Director assessment of the INDICATORs shows that the CRITERION is met. IF the EAL specifies a duration, THEN the event shall be declared as soon as it is determined that the condition cannot be corrected within the specified period. In either case, the assessment time starts from the indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

3.5.1 The assessment time is limited to 15 minutes, except as follows:

うない なだしらな しんせいた えっこしん

the state of the solid training

43.5.1.1. IF the EAL specifies a duration (e.g., release exceeds 2x T/S for one hour), THEN the assessment time runs concurrently with the required duration AND is the same length (e.g., in this example, one hour).

- 3.5.1.2 The assessment time and any required duration are NOT additive. Sin 80.37
- 3.5.2 IF the assessment cannot be completed within the specified period, THEN the event must be declared on the basis of INDICATORS that cannot be reasonably discounted. · · · · 以注意:match Linux a z z z z
- CORNER 3.6 Co Bases Contributed Color (Confidence Transfer Color
 - FREE TO STO OT A LATE AN ESTOCALLY 3.6.1 Chapter 4 of the BVPS EPP provides the bases for these EALs. The bases can be used for guidance to assist the Emergency Director in classifying events for which the classification is not immediately apparent. infilinediately apparents 155

Southern 13.7 and Defined Terms of the first transfer of the second of t

3.7.1 In the EALs, words written in bold uppercase letters are defined terms having specific meanings as they relate to this procedure. Definitions of these terms are provided on the reverse side of most pages in the EAL section of this procedure. Such terms shall be interpreted as provided in the definitions. Art with the EXPLORATION ASSESSED.

E. PROCEDURE

- DETERMINE OPERATING MODE THAT EXISTED AT THE TIME THAT 1.0 THE EVENT OCCURRED PRIOR TO ANY PROTECTION SYSTEM OR OPERATOR ACTION INITIATED IN RESPONSE TO THE EVENT.
- THE STATE OF THE SHEET STATES AND ASSESSED. 2.0 DETERMINE IF THE CONDITION AFFECTS FISSION PRODUCT BARRIERS AND, IF SO, PROCEED TO TAB 1. 1 1 1
 - 2.1 IF the condition involves any of the following AND the initial mode was 1-4 THEN proceed to Tab 1 and follow instructions provided AND continue with Step 2.2.
 - CSF status tree ORANGE PATH or RED PATH conditions 2.1.1
 - 2.1.2 Core exit thermocouple readings above 729 F
 - 2.1.3. Reactor vessel full range water level less than 40% (no RCPs)
 - 2.1.4 Elevated RCS activity >300 μCi/gm

The same of the sa

2.1.5. Elevated Containment High Range Area Radiation Monitor reading

The transfer of the

- 2.1.6 RCS leakrate large enough to require a 2nd charging pump
 - 2.1.7 Loss of RCS subcooling

The state of the s

- 2.1.8 Steam Generator Tube Rupture
- 2.1.9 Containment bypass or loss of integrity
- 2.1.10 Rise in containment pressure or hydrogen concentration
 - 2.2 Consider other related event-based EALs. IF other EALs are applicable, <u>THEN</u> perform Steps 3.0 and 4.0 if necessary. Otherwise, go to Step 5.0
- 3.0 CATEGORIZE THE EVENT INTO ONE OF THE INITIATING CONDITIONS AND LOCATE THE TAR AND LOCATE THE TAB. 1 ... - //
 - 3.1 Locate one of the EAL indices provided at the start of each tab.
 - Review the index to identify the tab that addresses the event that has 3.2 occurred.

Turn to the appropriate tab. * - * · · · · · · · · · 3.3

The assessment of an emergency condition shall be completed as soon as possible and within 15 minutes of the occurance of one or more INDICATORs. IF the assessment cannot be completed within the specified period, THEN the event must be declared on the basis of INDICATORs that cannot be reasonably discounted.

NOTE:

IF the EAL specifies a duration (e.g., release exceeds 2x T/S for one hour), THEN the assessment time runs concurrently with the required duration AND is the same length.

- ASSESS THE EVENT AND COMPARE TO THE EALS
 - Locate the EAL for the highest severity emergency classification that is applicable for the initiating condition and operating mode
 - Review the INDICATORs and CRITERION for that EAL .
 - IF the specified INDICATORs are not observed, THEN:
 - 4.3.1 Proceed to the next lower severity EAL and re-perform step 4.2
 - 4.3.2 IF none of the EALs for an initiating condition are met, THEN reperform steps 3.0 and 4.0 for related initiating conditions.
 - 4.3.3 IF the actions above do not identify an applicable EAL, THEN review the observed conditions against Tab 4.7, Hazards and Emergency Director Judgment.
- 4.3.4 IF, after performing the above, no EAL is identified, THEN proceed to step 6.0. proceed to step 6.0.
 - 4.4 <u>IF</u> the specified INDICATORs are observed, <u>THEN</u>:
 - 4.4.1 Perform necessary assessments to validate the instrument readings and/or confirm reported observations.

4.4.2 Initiate any sampling, inspections, or dose assessments specified by

NOTE:

IF the CRITERION specifies an event or condition duration, THEN the classification shall be made as soon as the duration is exceeded, OR when it is apparent that the duration will be exceeded, whichever is earlier.

4.4.3 Compare the results of the assessments to the CRITERION.

NOTE

A given INDICATOR may apply to more than one CRITERION. The Emergency Director shall review other related EALs for applicability.

- 4.5 <u>IF</u> the assessment concludes that the CRITERION is met, <u>THEN</u> the classification shall be made. Proceed to Step 5.0
- 4.6 <u>IF</u> the assessment concludes that the CRITERION is not met, <u>THEN</u> reperform steps 3.0 and 4.0 for other related initiating conditions as applicable.
- 4.7 IF no classification results from the above, THEN proceed to step 6.0.

NOTE

The declaration of the emergency classification shall be made as soon as the Emergency Director has assessed that the EAL has been met OR will be met, AND within 15 minutes of occurance of the INDICATOR. Once the emergency is classified, notifications to state and local governments shall be completed within 15 minutes of the declaration.

- 5.0 DECLARE THE EMERGENCY CLASSIFICATION AND TRANSITION TO RESPONSE PROCEDURES
 - 5.1 <u>IF</u> an UNUSUAL EVENT is declared, <u>THEN</u> proceed to EPP/I-2
 - 5.2 <u>IF</u> an ALERT is declared, <u>THEN</u> proceed to EPP/I-3

5.3 <u>IF</u> a SITE AREA EMERGENCY is declared, <u>THEN</u> proceed to EPP/I-4

5.4 <u>IF</u> a GENERAL EMERGENCY is declared, <u>THEN</u> proceed to EPP/I-5

NOTE

The step below is implemented only if an emergency classification is NOT made. IF a classification is made, THEN the transition indicated in step 5.0 should have been made.

- 6.0 EVALUATE THE NEED FOR AND MAKE NON-EMERGENCY NOTIFICATIONS
 - 6.1 <u>IF</u> the abnormal condition is reportable to the NRC pursuant to 10 CFR 50.72 and 1/2-ADM-2202, <u>THEN</u> perform the following:
 - 6.1.1 Complete the NRC Reactor Plant Event Notification Worksheet (located on the Regulatory Affairs web page).
 - 6.1.2 Notify First Energy Communications of the event and provide the information on the NRC Reactor Plant Event Notification Worksheet.
 - 6.2 <u>IF</u> directed by station management, <u>THEN</u> make courtesy calls to the following state and local agencies on a timely basis consistent with normal working hours.
 - 6.2.1 BCEMA
 - 6.2.2 PEMA
 - 6.2.3 CCEMA
 - 6.2.4 HCOES

F. FINAL CONDITIONS

- 1.0 For emergency events, the transition to the appropriate response procedure has been made and actions pursuant to that procedure are in progress.
- 2.0 For non-emergency events, required notifications have been completed.

G. <u>ATTACHMENTS</u>

1.0 Tabs for Classification of Emergency Conditions

H. <u>FIGURES</u>

1.0 Figures are identified on the EAL indices

Modes: 1,2,3,4

INSTRUCTIONS

threshold has been, or is, reached or exceeded, on the

NOTE: An INDICATOR is considered to be MET if the stated

LOSS Potential LOSS Core Cooling CSF RED Core Cooling CSF ORANGE PATH OR Heat Sink CSF RED PATH OR Heat Sink CSF RED PATH OR Heat Sink CSF RED PATH COR 1.1.2 Three Max CETGS OR Creater than 1200F Greater than 729F COR LIAS Potential LOSS OR LIAS Reactor Vessel Water Level LOSS Potential LOSS Not Applicable RVLIS Full Range <40% (no RCPs running) RCS lack results in loss of RCS leak results in loss of RCS subcooling RCS subcooling RCS leak cau injection actuation by direct entry in requires an charging pump with letdown iso OR LIAS Primary Coolant Activity Level LOSS Potential LOSS RCS activity >300µCi/gm RCS activity >300µCi/gm RCS activity >300µCi/gm LOSS Potential LOSS RCS activity >300µCi/gm RCS activity >300µCi/gm RCS activity >300µCi/gm	CSS REI t Sink CS LOSS cable LOSS
Core Cooling CSF RED ORANGE PATH OR Heat Sink CSF RED PATH CORS	CSF RE t Sink CS LOSS cable LOSS S leak th
PATH ORANGE PATH OR Heat Sink CSF RED PATH ORANGE PATH OR Heat Sink CSF RED PATH OR OR OR OR OR OR CIA COR Greater than 1200F Greater than 729F COR CIA COR COR COR COR COR COR COR CO	LOSS LOSS LOSS LOSS LOSS LOSS LOSS
Sink CSF RED PATH OR CI.1.2 Three Max CETCS Potential LOSS Greater than 1200F Greater than 729F CI.1.3 Reactor Vessel Water Level COR CI.1.4 Primary Coolant Activity Level LOSS Potential LOSS Potential LOSS RVLIS Full Range <40% (no RCPs running) RVLIS Full Range <40% (no RCPs running) RCS leak results in loss of RCS subcooling RCS subcooling RCS leak requires an charging pump with letdown iso OR RCS leak results in loss of RCS subcooling RCS leak requires an charging pump with letdown iso OR RCS leak requires an charging pump with letdown iso OR RCS leak requires an charging pump with letdown iso OR RCS leak requires an charging pump with letdown iso OR RCS leak requires an charging pump with letdown iso OR RCS leak results in loss of requires an charging pump with letdown iso OR RCS leak results in loss of requires an charging pump with letdown iso OR RCS leak results in loss of RCS subcooling RCS leak results in loss of RCS subcooling RCS leak results in loss of RCS subcooling RCS leak results in loss of RCS leak requires an charging pump with letdown iso OR RCS leak results in loss of RCS subcooling RCS leak results in loss of RCS leak requires an charging pump with letdown iso OR RCS leak results in loss of RCS leak results in loss of RCS subcooling RCS leak results in loss of RCS leak results in loss of RCS subcooling RCS leak results in loss of RCS subcooling RCS leak results in loss of RCS leak results in loss of RCS subcooling RCS leak results in loss of RCS subcooling RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS subcooling RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak results in loss of RCS leak result	LOSS LOSS S leak th
COR COR	cable LOSS B leak th
LOSS Potential LOSS RVLIS Full Range <40% (no RCPs running) Not Applicable RVLIS Full Range <40% (no RCPs running) Not Applicable RVLIS Full Range <40% (no RCPs running) RCS subcooling RCS subcooling RCS leak can injection actuation by direct entry in required by EOP	cable LOSS B leak th
LOSS Potential LOSS RVLIS Full Range <40% (no RCPs running) Not Applicable RVLIS Full Range <40% (no RCPs running) RCS subcooling RCS subcooling RCS subcooling RCS leak cau injection actuation by direct entry in required by EOP	cable LOSS B leak th
Greater than 1200F Greater than 729F COR LI3 Reactor Vessel Water Level LOSS Potential LOSS Not Applicable RVLIS Full Range <40% (no RCPs running) RVLIS Full Range <40% (no RCPs running) Not Applicable RVLIS Full Range <40% (no RCPs running) RCS leak Rate LOSS RCS leak results in loss of RCS subcooling RCS subcooling RCS leak cau injection actuation by direct entry in required by EOP COR LOSS Potential LOSS Potential LOSS LOSS RCS leak results in loss of RCS subcooling RCS leak cau injection actuation by direct entry in required by EOP LOSS Potential LOSS Potential LOSS Potential LOSS Potential LOSS Potential LOSS Potential LOSS Potential LOSS Potential LOSS Potential LOSS Potential LOSS Potential LOSS	cable LOSS S leak th
COR- COR-	LOSS S leak th
COR LOSS Potential LOSS Not Applicable RVLIS Full Range <40% (no RCPs running) RCS subcooling Potential Doss of RCS subcooling RCS subcooling RCS requires an charging pump with letdown iso OR RCS leak cau injection actuation by direct entry in required by EOP 1.1.4 Primary Coolant Activity Level LOSS Potential LOSS Potential 1.2.3 RCS Leak Rate 1.2.3 RCS Leak Rate 1.2.3 RCS Leak Rate 1.2.4 Primary to Secondary Leak 1.2.5 Primary to Secondary Leak 1.2.5 Potential LOSS Potential LOSS	LOSS S leak th
LOSS Potential LOSS Not Applicable RVLIS Full Range <40% (no RCPs running) RCS leak results in loss of RCS subcooling RCS subcooling RCS leak results in loss of RCS subcooling RCS leak resu	LOSS leak th
LOSS Potential LOSS Not Applicable RVLIS Full Range <40% (no RCPs running) RCS leak results in loss of RCS subcooling RCS subcooling RCS subcooling RCS subcooling RCS leak results in loss of RCS subcooling RCS leak results in loss	LOSS leak th
Not Applicable RVLIS Full Range <40% (no RCPs running) RCS leak results in loss of RCS subcooling RCS subcooling RCS leak results in loss of RCS subcooling RCS leak results in loss of RCS requires an charging pump with letdown iso OR RCS leak cau injection actuation by direct entry in required by EOP 1.1.4 Primary to Secondary Leak Potential LOSS Potential	
(no RCPs running) RCS subcooling requires an charging pump with letdown iso OR RCS leak cat injection actuation by direct entry in required by EOP 1.1.4 Primary Coolant Activity Level LOSS Potential LOSS Potential	
charging pump with letdown iso OR RCS leak cat injection actuation by direct entry in required by EOP 1:14 Primary Coolant Activity Level LOSS Potential LOSS LOSS Potential	addition
RCS leak cau injection actuation by direct entry in required by EOP 1:1.4 - Primary Coolant Activity Level LOSS Potential LOSS LOSS Potential	be starte
RCS leak cat injection actuation by direct entry in required by EOP 1.1.4 ** Primary Coolant Activity Level** LOSS Potential LOSS LOSS Potential	lated.
injection actuation by direct entry in required by EOP 1:1:4 Primary Coolant Activity Level LOSS Potential LOSS Potential	
by direct entry in required by EOP OR 1:14 S Primary Coolant Activity Level LOSS Potential LOSS Potential LOSS Potential	
required by EOP OR 1:1.4 5 Primary Coolant Activity Level LOSS Potential LOSS LOSS Potential	
I:1.4 Primary Coolant Activity Level LOSS Potential LOSS LOSS Potential	
1:14 Primary Coolant Activity Level 1:2.4 Primary to Secondary Leak LOSS Potential LOSS LOSS Potential	E-0
LOSS Potential LOSS Potential	
37.6	
PCS activity >300uCi/am Like SGTR that results in a safety	LOSS
dose equivalent lodine-131 Not Applicable injection actuation Not Appli	cable
<u>OR</u>	
Entry into E-3 required by	
EOPs	ravis andress en 1945
11.5 Letdown Monitor Indication Monitors LOSS Potential LOSS LOSS Potential	
2CHS-RQ101 A/B [3051] +VALID reading above	13000
VALID reading greater than Not Applicable background exceeds: Not App	licable
300μCi/ml with letdown	
unicolated Time After 2RMR-RQ201 2RMR-RQ202* * Due to streami	ng thru airloc
5/D, hrs mR/hr mR/hr 0.0.5 130 1.0	
05-4 80 05	
4-12 40 03 2RMR-RQ201 12-24 25 N/A 2RMR-RQ202	
+Readings based on T/S RCS Activity	,
THE PARTY OF THE P	Tax Time
T.1.6 Containment Radiation Monitors	THE STATE OF THE S
LOSS Potential LOSS	
VALID reading exceeds: Not Applicable	
2RMR-RQ206 * Due to streaming thru oirlock	
Time After 2RMR-RQ207 2RMR-RQ202* S/D, hrs R/hr mR/hr 2RMR-RQ202 = chn 3020	
0.0 5 340 1100 2RMR-RQ206 = chn 1029	
0 5-4 190 560 2RMR-RQ207 = chn 1030 280	MARKE
12-24 60 130	
OR	
1.1.7) Emergency Director Judgement 1.2.6 Emergency Director Judgement	
Any condition that, in the judgement of the SM/ED, Any condition that, in the judgement of the sm/ED,	he SM/E
indicates loss or potential loss of the Fuel Clad barrier indicates loss or potential loss of the F	:
comparable to the indicators listed above comparable to the indicators listed above	RCS barr
	RCS barr
	RCS barr
LOSS L COS Potential LOSS LOSS Potential LOS	RCS barri

	OR Actions of FR-C.1 (RED PATH) are INEF- FECTIVE		basis of confirmed observation or VALID instrument readings. The Emergency Director must use judgement when classifying parameters that may be transitory (e.g., containment pressure)
Control of the Contro	R: ure / Hydrogen Cont Potential LOSS CNMT pressure >45 PSIG OR		NOTE: The INDICATOR should be considered MET if the parameter is indeterminate due to instruments that are not available or out of range and the existence of the condition can not be reasonably discounted
OR ON SUMPLE OF SUMP ON SUMPLE OF SUMP ON SUMPLE OF SUMP ON SUMPLE OF SUMPL	CNMT H2 rises >4% OR CNMT pressure >8 PSIG with less than one full train of CNMT spray		NOTE: An INDICATOR is considered to be MET if, in the judgement of the Emergency Director, the INDICATOR will be MET imminently (i e, within 1 to 2 hours in the absence of a viable success path). The classification shall be made as soon as this determination is made
Containment Tsolat LOSS NMT isolation is accomplete creating a direct clease path to the	不 1、1.1.1.4 Parties, 1.1.4 Parties, 1.1.1 Parties 2.1.4 Parties 3.1.4 P		 In the matrix to the left, review the LOSS INDICATORS in each barrier column. If one or more INDICATORS are met, check the LOSS block at the bottom of the column. If no LOSS is identified for a particular barrier, review the potential LOSS INDICATORS for that barrier. If one or more
Containment Bypas LOSS LUPTURED S/G is also AULTED Outside of	Potential LOSS Unexplained VALID rise in reading on area or		INDICATORS are met, check the potential LOSS block at the bottom of the barrier column. 3. Compare the blocks checked to the CRITERIA below and make the appropriate declaration.
P-to-S leakrate >T/S with approx. 4-8 hr. steam release from affected S/G via nonisolable MSSV, SGADV, or from MSLB	ventilation monitors in contiguous areas with known LOCA OR HIGH Alarm on 2SWS-RQ100A,B,C, or D AND affected HX is NOT		GRETIERIA GENERAL EMERGENCY LOSS of any Two (2) barriers and Potential loss of third barrier. OR LOSS of all three (3) barriers.
13.5 Significant)Radidae LOSS	isolated RE: tivity in Containment Potential LOSS VALID reading exceeds:		SITE AREA EMERGENCY LOSS or Potential LOSS of any two (2) barriers.
Due to streaming thru airlock 2RMR-RQ202 = chn 3020 2RMR RQ206 = chn 1029	2RMR-RQ206 Fime After 2RMR-RQ207 2RMR-RQ202* <u>S/D hrs R/hr mR/hr</u> 0-0 5 20E4 70E4 0 5-4 70E3 23E4 4-12 29E3 90E3	产业	LOSS of one (1) barrier and a Potential LOSS of a second barrier. ALERT Any LOSS or Potential LOSS of Fuel Clad barrier.
1.3.6 Emergency Directo	መመከም እና 24 ላቸውን እየሚያለው የሚገል ይመልና ይሉ ነ ነት ተከት ዓለል		OR Any LOSS or Potential LOSS of RCS barrier.
	ss of the Containment barrier		UNUSUAL EVENT LOSS or Potential Loss of CNMT barrier.
LOSS	Potential LOSS		SEE ALSO EAL'S: 12.4 Fuel Clad Degradation (RCS Specific Activity >LCO) 12.5 RCS Unidentified or Pressure Boundry Leakage > 10 gpm. 12.6 RCS Identified Leakage > 25 gpm.

1.3 CNMT Barrier

Potential LOSS

CNMT CSF RED PATH

1.3.1 Critical Safety Function Status

Not Applicable

AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

: HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor thermocouple temperatures).

NTRUSION/INTRUDER: Suspected hostile individual present in rotected area without authorization.

combustible gases will not explode due to ignition.

LCO. LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under severe challenge.

> PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

> The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

> RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

> RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

> SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

> SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip: (4) Safety Injection System Activation

> The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

> STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or vessel water level (RVLIS full range) and/or decreasing trend on core reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

	2.1 Mode	Loss of Instrumentation Criterion / Indicator
Control of	Wilde	Refer to Tab 1 "Fission Product Barrier
		Matrix" and Tab 7 "Radiological Effluents"
	'' }	
		•
		1
3	Ì	
		•
		•
\mathbf{C}		
		•
	,	
		·
	,	Inability to monitor a SIGNIFICANT
		TRANSIENT in progress
		[1 and 2 and 3]
		1. Loss of most (>75%) annunciators or
	1	indications TRAINING
	_	2. SIGNIFICANT TRANSIENT in
\checkmark	2	progress
B	, 3 4	3. Inability to directly monitor any of the
	4	following CSFs:
	· '	ionowing Cot 3.
O		Subcriticality Vessel Integrity
		Core Cooling Containment
		Heat Sink
		UNPLANNED loss of most annunciators or
		indications for >15 minutes with either a
		SIGNIFICANT TRANSIENT in progress or a loss of non-alarming compensatory
		a loss of non-alarming compensatory indications
		[1 and 2 and 3]
	1 '	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	2	1. UNPLANNED loss of most (>75%)
3	3 ′	annunciators or indications for >15
	4	minutes 2. SM judgement that additional personnel
اللاجر		L. 2. SM judgement that additional personnel (beyond normal shift complement) are
7		required to monitor the safe operation of
		the unit
	,	3. [a or b]
		a. SIGNIFICANT TRANSIENT in
		progress
		b. Loss of SPDS
		UNPLANNED loss of most annunciators or
الزجل	,	indications for >15 minutes
		[1 and 2]
		1. UNPLANNED loss of most (>75%)
>		annunciators or indications for >15
	1	minutes
	2	1
	2 3 4	2. SM judgement that additional personnel
1	4	(beyond normal shift complement) are
	7	required to monitor the safe operation of
		the unit
SI		1
	(-	,
INUST	\ \frac{1}{2}	•

	Loss of Function
Mode	Criterion / Indicator
`	Inability to cool the core [1 or 2]
'	1. Actions of FR-C.1 (RED PATH) are
	INEFFECTIVE
1	2. [a and b] a. Three max core exit thermocouples
2 3	>1200 F: or three max core exit
3	thermocouples >729 F with NO RCPs
4	running <u>and</u> RVLIS full range level <40%
	b. Actions taken have NOT resulted in a
ļ	rising trend in RVLIS full range level or a dropping trend in core exit
	thermocouple temperatures within 15
	minutes of initiation of restoration
,	actions
	Loss of function needed to achieve <u>or</u> maintain hot shutdown
	[1 or 2]
	1. Ops personnel report a CSF status tree
	RED PATH terminus for core cooling or heat sink exists
	2. Three max core exit thermocouples >1200
1 2	F; or three max core exit thermocouples >729 F with NO RCPs running and
3	RVLIS full range level <40%
4	
	Also Refer to Tab 2.3 "Failure of Reactor Protection" and Tab 1 "Fission Product
	Barrier Matrix"
	Complete loss of function needed to achieve
	Cold Shutdown when Shutdown required by Tech Specs
	[1 and 2 and 3]
	1 Land Samuel canability
1	1. Loss of decay heat removal capability (RHR, CCR, or RPRW) / (RHS, CCP,
2	SWS)
. 3 4	2. Inability to remove heat via the condenser
**	2.1
, ,	3. Shutdown to mode 5 required by T/S
* .	-
Y	
	TINDY AND I f assessment in the
	UNPLANNED Loss of communications [1 or 2]
	1. In-plant [a and b and c]
	a. UNPLANNED Loss of All Pax
A T T	Phones b. UNPLANNED Loss of All Gaitronics
ALL	b. UNPLANNED Loss of All Gaitronics (Page/Party)
	c. UNPLANNED Loss of All Radios
	(Handie-Talkies)
•	2. Offsite [a and b and c]
,	a. UNPLANNED Loss of ENS b. UNPLANNED Loss of Bell Lines
, r	c. UNPLANNED Loss of Radios to
	Offsite

243篇	Failure of Rx Protection
Mode	Criterion / Indicator
, ,	Reactor power >5% after VALID trip
,	signal(s) and loss of core cooling capability
'	[1 and 2]
1,	1. Ops personnel report FR-S.1 has been
1	entered <u>and</u> subsequent actions do NOT result in reduction of power to <5% and
2	decreasing
-	2. [a or b]
	a Ops personnel report CSF status tree
	RED PATH terminus exists for core
	cooling or heat sink
	b. Three max core exit thermocouples
	>1200 F; or three max core exit
_	thermocouples >729 F with NO RCPs
	running <u>and</u> RVLIS full range level <40%
,	Reactor trip failure after VALID Trip
	signal(s) with reactor power >5% and
	attempts to cause a manual trip from the
	control room are unsuccessful.
	1
1	1. Ops personnel report FR-S.1 has been
2	entered <u>and</u> manual reactor trip from control room did NOT result in reduction
-	of power to <5% and decreasing
	or power to 1570 and decreasing
	i, v
	· · · · · · · · · · · · · · · · · · ·
	Automatic reactor trip did not occur after
2 1	
	VALID trip signal and manual trip from
	VALID trip signal and manual trip from control room was successful
;	control room was successful [1 and 2]
;	control room was successful [1 and 2] 1. VALID reactor trip signal received or
1	control room was successful [1 and 2]
1 2	control room was successful [1 and 2] 1. VALID reactor trip signal received or
1 2	control room was successful [1 and 2] 1. VALID reactor trip signal received or required.
1 2	 control room was successful [1 and 2] 1. VALID reactor trip signal received or required. 2. Manual reactor trip from control room
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing
1 2	 control room was successful [1 and 2] VALID reactor trip signal received or required. Manual reactor trip from control room was successful and power is <5% and decreasing

	2.4	Fuel Clad Degradation	EPP/I-1
	Mode	Criterion / Indicator	
•	A Company of the Comp	Refer to Tab 1 "Fission Product Barrier Matrix"	1
			DAIDRA
			Ą
		Refer to Tab 1 "Fission Product Barrier Matrix"	
	,		D ARD
			Sim
		Refer to Tab 1 "Fission Product Barrier Matrix"	
-			R
		Reactor coolant system specific activity exceeds LCO (refer to BVPS technical specification 3.4.8) [1 or 2]	AUNG
,		VALID high alarm on 2CHS-RQ101A/B [3051] reactor coolant letdown monitor Radiochemistry analysis exceeds Technical Specification 3.4.8	0.60
	2 3 4 5	Specification 3.4 8	NUSUV
			É

AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i e., the basis of the declaration). All classifications are based on an assessment (ie, determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these RED PATH: Monitoring of one or more CSFs by the EOPs which assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency 'Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 VALID: An indication or report or condition is considered to be VALID minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in protected area without authorization.

combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under severe challenge.

> PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

> The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

indicates that a CSF is under extreme challenge-

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

	RCS Unidentified Leakage Criterion / Indicator
Mode	Refer to Tab 1 "Fission Product Barrier
	Matrix"
	, ,
	;
	,
ਨ	
Z	'
<u>Ş</u>	* '
9	'
	, , , , , , , , , , , , , , , , , , , ,
	Refer to Tab 1 "Fission Product Barrier Matrix"
	,
	1
5	
	Refer to Tab 1 "Fission Product Barrier
	Matrix"
	••
	`
2	
至	
	Unidentified or pressure boundary RCS
	leakage >10 GPM
5	Unidentified or pressure boundary leakage
	(as defined by Technical Specifications) >10 GPM as indicated below [a or b]
2 3	a. OST 2.6.2A results
4	b. With RCS temp. and PZR level stable,
	VCT level dropping at a rate >10 GPM (>1%/min indicated on 2CHS-
	LI-115 with no VCT makeup in
	progress)
	*Applies to Mode 5 if RCS Pressurized

Mode	RCS Identified Leakage Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	•
,	
İ	,
	Refer to Tab 1 "Fission Product Barrier Matrix"
	-
'	
,	Refer to Tab 1 "Fission Product Barrier Matrix"
, `	
į.	
` `	,
	Identified RCS leakage >25 GPM
	 Identified RCS leakage (as defined by Technical Specifications) >25 GPM as indicated below [a or b]
1 2 3 4	a. OST 2 6 2 or 2.6 2A Results b UNPLANNED level rise in excess of 25 GPM total into PRT, 2DGS-TK-21, and 2DGS-TK-22
5*	*Applies to Mode 5 if RCS Pressurized

Mode	Technical Specification Criterion / Indicator	ĺ	1
	Not Applicable		
·	· · · · · · · · · · · · · · · · · · ·	,	
	,		
ļ	1		
	<u>'</u>	,	
	9 (
İ	,		
1		,	
			_
	Not Applicable		
ļ			
1	· ·	1	
	*	1	
	•	[
. '			
			L
	Refer to Tab 2 2, "Loss of Function"		
`		_	
	\		
, ,	• • • • • • • • • • • • • • • • • • •		ľ
İ		1	
	,		
1)		
,			
,	- , , , , ,		
	•		L
,	Inability to Reach Required Shutdown Mode Within Technical Specification Time Limits [1 and 2]	,	
1 2	A Technical Specification action statement, requiring a mode reduction, has been entered		,
2 3 4	2. The unit has NOT been placed in the required mode within the time prescribed by the action statement		
1.	t .	,	
		1	1

ı	2.8	Safety Limit	EPP/I-1b Att I
	Mode	Criterion / Indicator	
f		Not Applicable	
		Maria de la companya de la companya de la companya de la companya de la companya de la companya de la companya	
	'		
- 1			
- 1	` }]		V
	·	'	\simeq
		1	3
	11	•	
			9
- 1		•	
,		•	
		Not Applicable	
		No. Applicable	
		5 · 5	
			V
ļ	.	•	
-		,	
			V
		`	2
I	ˈ .	-	
			5
	*		
		,	
		Not Applicable	
-	· ' '	_	
		· •	
	-	21	
		-,	
		1	list
	\ \	, ,	
	ľ		
	 		Taylor Hallor Marketta
,		Safety Limit Has Been Exceeded	
		[1 or 2]	
		1. Technical Specification 2.1.1 specifies the	E
	'	safety limits for the reactor core which are	
	11	applicable in Modes 1 and 2.	3
	1 2 3 4 5	2. Technical Specification 2.1.2 specifies the	
	3	safety limit for the Reactor Coolant System	
	4	pressure which is applicable in Modes 1, 2,	15
	5	3, 4 and 5.	S
	1 . [,	
	, ,		
	1		

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor) thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance lèvel for equipment required for safe shutdown.

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or vessel water level (RVLIS full range) and/or decreasing trend on core reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

> VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

6644 	Mode	Turbine Failure Criterion / Indicator
		Refer to Tab 1 "Fission Product Barrier Matrix"
		,
2		,
S		ι,
ひ	4.1	+
		7. 1. 1. 45
		Refer to Tab 1 "Fission Product Barrier Matrix"
	i	,
至		
	•	,
5		
∑	τ,	
	<u>-</u> '	Turbine failure generated missiles cause penetration of a missile shield wall of any area containing safety related equipment
ORAL	1 .	Plant personnel report missiles generated by turbine failure with casing penetration also results in a through-wall penetration of a missile shield wall listed in Table 2-1
	1 , 2 , 3	
V		
-		Turbine failure results in casing penetration
NGING	1 2	Plant personnel report a turbine failure which results in penetration of the turbine casing or damage to main generator seals with evidence of significant hydrogen or seal oil leakage
	2	
3	-	
724	-	

Mode	Steam/Feed Line Break Criterion / Indicator
,	Refer, to Tab I "Fission Product Barrier Matrix"
100	
,	
	-
	Refer to Tab I "Fission Product Barrier Matrix"
	,
•	*
k.	
	Refer to Tab 1 "Fission Product Barrier Matrix"
. "	
'	
q.	
,	
,	UNPLANNED rapid depressurization of the Main Steam System resulting in a rapid RCS cooldown and Safety Injection actuation [1 and 2]
1 2 3 4	Ops personnel report rapid depressurization of Main Steam System that causes SLI (<500 psig)
4	2. Ops personnel report Safety Injection ha actuated

Table 2-1 Plant Areas Associated With Shield Wall Penetration EAL

Diesel Generator Bldg. Electrical Switchgear 730' Main Steam Valve Room 2FWE-TK210

Service Bldg 745' and 760' Containment Primary Aux. Building

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i e, the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering Surface blemishes (e.g., paint chipping, scratches) should not be included.

VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

EPP/I-1b Attachment 1

		Loss of AC (Power Ops)
	Mode	Criterion / Indicator
	• •	Prolonged loss of offsite and onsite AC power [1 and 2]
		1. AE and DF 4KV emergency buses NOT energized from Unit 2 sources for >15 minutes
	2	2. [a or b or c]
- GBNBR	3 4	 a. Ops personnel report CSF status tree RED PATH or ORANGE PATH terminus exists for core cooling b. Restoration of either AE or DF 4KV emergency bus is NOT likely from any source within 4 hours of loss c. Three max core exit thermocouples >1200 F or three max core exit thermocouples'>729 F with no RCPs
		running and RVLIS full range <40%
		Loss of offsite and onsite AC power for >15 minutes
Var		AE and DF 4KV emergency buses NOT energized from Unit 2 sources for >15 minutes
\mathbf{V}	1	
	2	, , ,
	2 3 4	
	4	
	,	1 × × 9
		, <u> </u>
		AC power to emergency buses reduced to a single source of power such that any additional failure will result in the deenergization of both buses [1 and 2]
973	1	Either AE or DF 4KV emergency bus is de-energized for >15 minutes
ANG	2 3 4	2. The energized AE or DF 4KV emergency bus has only one source of power [a or b]
		 a. Emergency diesel generator b. 2A or 2D 4KV normal bus
		Loss of offsite power for >15 minutes [1 and 2]
Nexala	1 2	2A and 2D 4KV normal buses de- energized for >15 minutes
		Each diesel generator is supplying power to its respective emergency bus
AU	3 4	
		•

Mode	Loss of AC (Shutdown) Criterion / Indicator
	Refer to Tab 6 "Shutdown System
	Degradation"
•	
	, '
	•
-	_
Ì	
,]	
ļ	•
	,
,	
	, · · · · · · · · · · · · · · · · · · ·
	Refer to Tab 6 "Shutdown System
	Degradation"
	•
	-,
4	,
£	'
**	
	UNPLANNED loss of offsite and onsite AC power for >15 minutes
t r	1. AE and DF 4KV emergency buses NOT energized from Unit 2 sources for >15 minutes
5 · 6	Also Refer to Tab 6 "Shutdown System Degradation"
De- fuel	
iuci	
]	
[, ,
, , , , , , , , , , , , , , , , , , , ,	UNPLANNED loss of offsite power for >15 minutes [1 and 2]
	1. 2A and 2D 4KV normal buses de- energized for >15 minutes
1	2. Either diesel generator is supplying power
5 6	to its respective emergency bus
6 De-	to its respective emergency bus
6	to its respective emergency bus

3.3	Loss of DC Power	
Mode	Criterion / Indicator	
,	Refer to Tab 1 "Fission Product Barrier Matrix" and Tab 2.2 "Loss of Function", and Tab 6.1 "Loss of Shutdown Systems"	
	,	
	•	
	•	
	1	
		á
,	,	T
l		
	,	
	Loss of all vital DC power for >15 minutes	
	- -	
•	1. Voltage <110 4 VDC on DC buses 2-1 and 2-2 and 2-3 and 2-4 for >15 minutes	Y
1	Also Refer to Tab 1 "Fission Product Barrier	
2 3	Matrix", Tab 2 2 "Loss of Function", and Tab 2.1 "Loss of Instrumentation" and Tab 6 1	
4	"Loss of Shutdown Systems"	
,		
4		
1	*	
	Refer to Tab 1 "Fission Product Barrier Matrix", Tab 2.2 "Loss of Function", and Tab 21 "Loss of Instrumentation" and Tab 6.1 "Loss of Shutdown Systems"	
~		
		3
, ,	1	₹
	,	
	, i	
	s	
-		
	UNPLANNED loss of one train of DC power for >15 minutes	
	[1 or 2]	Z
	1 Voltage <110 4 VDC on DC Buses 2-1 and	
1	1. Voltage <110.4 VDC on DC Buses 2-1 and 2-3 for >15 minutes	
2	1	
3 4	2. Voltage <110.4 VDC on DC buses 2-2 and 2-4 for >15 minutes	
	2-4 IOI > 13 minutes	
		\mathbf{S}
,	Refer to Tab 6.4 "Loss of DC (Shutdown)" for	12
1	modes 5, 6, and defueled "	

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS)

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip: (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

171-115 nent 1
- U2
DGEMENT
S/ED JU
[AZARDS
A H

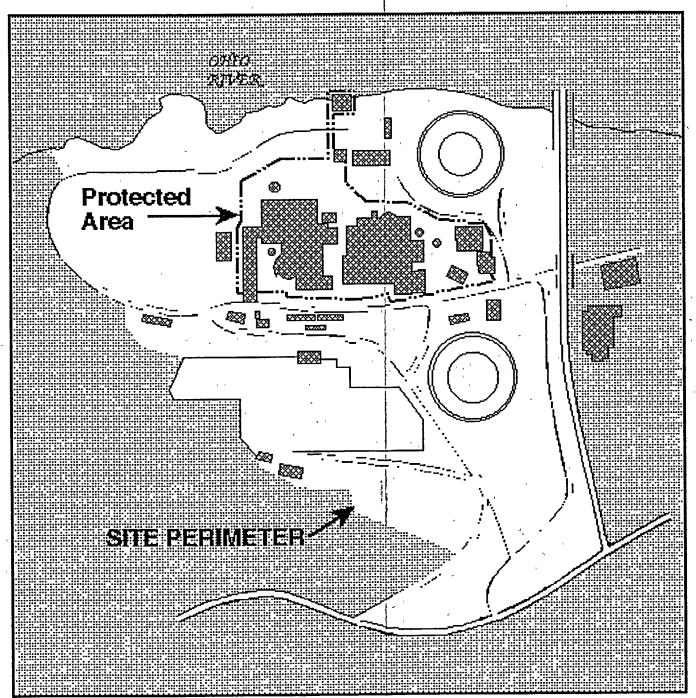
ľ	4.1	Fire
	Mode	Criterion / Indicator
GONDRAIL	1 2 3 4	FIRE in the Instrument and Relay Room (CB-1), Cable Spreading Room (CB-2), Control Room (CB-3), West Communications Room (CB-6), or Cable Tunnel (CB-1) resulting in an evacuation of the control room per 2.56C.4 "Alternate Safe Shutdown" and loss of any required equipment results in an uncontrolled RCS Heatup [1 and 2 and 3] 1. 2.56C.4 "Alternate Safe Shutdown" entered 2. Ops personnel report inability to operate any of the following equipment required by 2.56C.4 "Alternate Safe Shutdown" 2CHS-P21A 2SWS-P21A 2FWE-P23A & 2FWE-P22 EGS-EG2-1 Black DG Alternate S/D Panel 2SAS-C21A 2CCP-P21A 2RHS-P21A 3. Uncontrolled RCS heatup lasting longer than
	,	15 minutes
SITTE AREA	1 2 3 4	FIRE in the Instrument and Relay Room (CB-1), Cable Spreading Room (CB-2), Control Room (CB-3), West Communications Room (CB-6), or Cable Tunnel (CB-1) resulting in an evacuation of the control room per 2.56C.4 "Alternate Safe Shutdown" 1. 2.56C.4 "Alternate Safe Shutdown" entered
	,	FIRE in any of the areas listed in Table 4-1 that is affecting safety related equipment [1 and 2] 1. FIRE in any of the listed areas in Table 4-1
		, ,
ALBR	All	2. [a or b] - a. Ops personnel report VISIBLE DAMAGE to permanent structure or equipment in listed area due to FIRE b. Control room indication of degraded system or component (within listed)
		areas) response due to FIRE
INUSUAL BYBNT	All	FIRE in or adjacent to those areas listed in Table 4-1 not extinguished within 15 minutes from the time of control room notification or verification of control room alarm

Mode	Criterion / Indicator
111000	Refer to Tab 4.1 "Fire" or Tab 1 "Fission Product
	Barrier Matrix"
T.	the state of the s
2	100
	,
	+
	, ,
J	,
	,
	Refer to Tab 4.1 "Fire" or Tab 1 "Fission Product
	Barrier Matrix"
1	Burrer Man 2
1	i
	· /
)
	'
	EXPLOSION in any of the areas listed in Table
	4-1 that is affecting safety related equipment
	[1 and 2]
	1. EXPLOSION in any of the listed areas in
	Table 4-1
Áll	
AII	2. [a or b]
	a Ops personnel report VISIBLE
	a Ops personnel report VISIBLE DAMAGE to permanent structure of
	equipment in listed area
	b. Control room indication of degraded
	system or component (within listed
	areas) response due to EXPLOSION
	Refer to Tab 4 6"Security"
- 	UNPLANNED EXPLOSION in or adjacent to
	those areas listed in Table 4-1
	, 'timbl's stated by Di Ocioni is or officer
1	1. UNPLANNED EXPLOSION in or adjacen to any of the listed areas in Table 4-1
All	to any of the fisted areas in Table 4-1
	,
	Refer to Tab 4.1, "Fire" or Tab 1 "Fission
	Product Barrier Matrix"
	Refer to Tab 4 6"Security"
'	

TABLE 4-1 PLANT AREAS ASSOCIATED WITH FIRE AND EXPLOSION EALS

Containment Building Prim. Auxiliary Building Rod Control Cable Vault Bldg. Control Room Diesel Gen. Bldgs Intake Str Cubicles Inst & Relay Rm 707 Emerg. Switchgear U1/U2 Cable Tunnel (CV 3) Relay Room Safeguards Building Cable Spreading Room 725 West Communications Room 707 ERF Substa & ERF DG Bldg Fuel Building Main Steam Vlv Rm Service Building Penetrations Area RWST 2QSS-TK21 Cable Tunnel 735 Cable Tunnel 712

> Figure 4-A PROTECTED AREA/SITE PERIMETER



ЕРР/І-1Ь Attachm

4.1, 4.2 Table 4-1, Figure 4

AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric contained therein. values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which VITAL AREA is any area within the PROTECTED AREA which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under severe challenge.

> PROJECTILE: An object ejected, thrown, or launched towards a plant/ structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment

> The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

been met or exceeded. Implicit in this protocol is the necessity for these RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

> RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

> SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

> SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

> The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

> STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

> TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

> UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

> With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

> VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check. or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or vessel water level (RVLIS full range) and/or decreasing trend on core reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

> contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

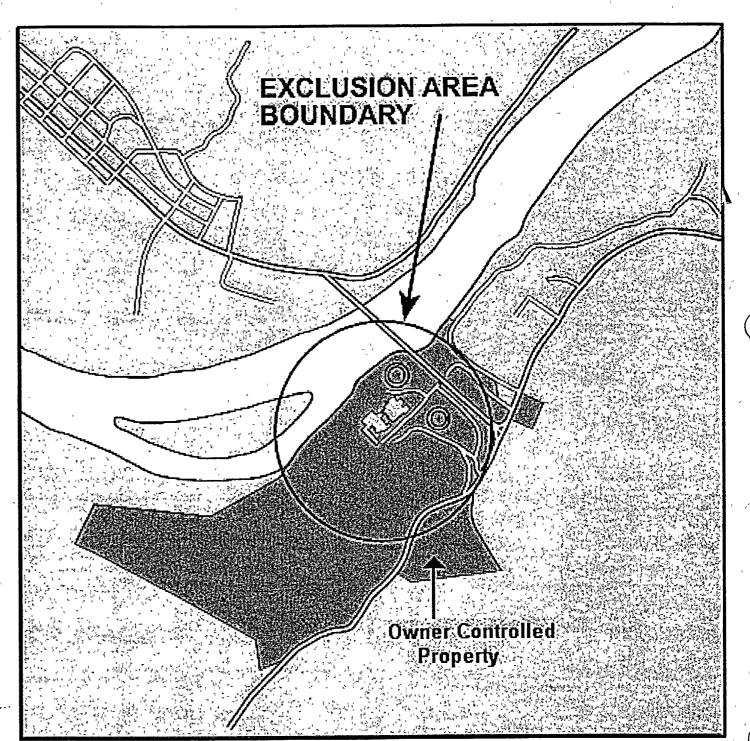
7
77
~
4

4.3 Mode	Flammable Gas Criterion / Indicator	4.4 Mode	Toxic Gas Criterion / Indicator	
Mode	Refer to Tab 4.1 "Fire", Tab 4.2 "Explosion, or	11.000	Refer to Tab 1 "Fission Product Barrier Matrix"	TABLE 4.2 HAS BEEN DELETEI
A	Tab 1 "Fission Product Barrier Matrix"			
,		` -	'	
		-		
		Ì		
		•		
			,	
				FIGURE 4-B HAS BEEN DELETE
		,		
	Refer to Tab 4.1 "Fire", Tab 42 "Explosion", or	v	Refer to Tab 1 "Fission Product Barrier Matrix"	
	Tab 1 "Fission Product Barrier Matrix"			
•	,			
ė.				
	• (
	,			
	,			
		r		
***	Release of flammable gas within, or contiguous		Release of TOXIC GAS within, or contiguous to, a VITAL AREA which jeopardizes	
	to, a VITAL AREA which jeopardizes operation of systems required to maintain safe		operation of systems required to maintain safe	
	operation of systems required to maintain safe		operations or to establish or maintain cold	
	shutdown (Mode 5).		shutdown (Mode 5). (1 and 2)	
٠.	1. Report or detection of a flammable gas		1. Report or detection of a TOXIC GAS within, or contiguous to, a VITAL AREA or	
All	within, or contiguous to, a VITAL AREA in	All	an area required for continued safe operation	
	concentrations greater than explosive concentrations.		in concentrations that will be life threatening	
			to plant personnel.	
		1	2. Plant personnel would be unable to perform actions necessary for continued safe	
			operation or to establish and maintain cold	
			shutdown (Mode 5) while utilizing appropriate personnel protection equipment.	
	Release of flammable gas affecting the		Release of TOXIC GAS affecting the	
	PROTECTED AREA deemed detrimental to		PROTECTED AREA deemed detrimental to the safe operation of the plant.	
	the safe operation of the plant. (1 or 2)		(1 or 2)	
			1. (a and b) a. Report or detection of TOXIC GAS that	
All	1. (a and b) a. Report or detection of flammable gas that	All	could enter the SITE PERIMETER in	
	could enter the SITE PERIMETER in	1 1	amounts that can affect normal operation of the plant (Refer to Figure 4-A)	
	amounts that can affect normal operation of		b. Normal operation of the plant is impeded	
	the plant (Refer to Figure 4-A). b. Normal operation of the plant is impeded		due to access restrictions implemented by	
	due to access restrictions implemented by	1 1	the Control Room within the PROTECTED AREA (Refer to	
	the Control Room within the PROTECTED AREA (Refer to Figure 4-		Figure 4-A).	
	A).		2. Report by local, county or State officials for a potential evacuation of site personnel based	
	. Depart by local county or State officials		on an offsite event.	
6 - 사	2. Report by local, county or State officials for a potential evacuation of site personnel		Refer to AOP 1/2 44A.1 "Chlorine/toxic Ga.	
Ç.	based on an offsite event.		Release", Attachment 3 for a list of chemical stored, produced, or transported near BVPS and	
188 +				

Devision

Figure 4-C

EXCLUSION AREA BOUNDARY



4.5	Control Room Evacuation	1
Mode	Criterion / Indicator	
'	Refer to Tab 4.1 "FIRE"	
	‡	
	, , ,	
	,	
	;	
	1	
	1 2	
,	;	
	,	
ř	,	
	, , , , , , , , , , , , , , , , , , ,	•
1	•	
	4	
1		
	1	
	Evacuation of the control room has bee initiated and control of all necessary equipments has not been established within 15 minutes manning the Shutdown Panel [1 and 2]	nt
	1. AOP 2.33.1A "Control Room	
A 13	Inaccessibility" has been entered	
All	\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.	
	Inability to transfer and operate any sing component listed in Table 4-3 within minutes of manning the shutdown panel	
	Also refer to Tab 4.1 "Fire"	
	Historejer to tub 4.1 The	
	·	
•	<u>'</u>	
	Evacuation of the control room is required	
,	1. AOP 2.33.1A "Control Room Inaccessibility" has been entered	
	A Company of the Comp	
1 ,	Ye	
A 11		
All		
	-	
	[-	
		*
, ,		
	1	
	•	ŧ
	;	
	,	
	Not Applicable	
	1	
	1	
1		
` +		
	•	
	<u>'</u>	
'		
-,		
	1	
	i e	
,	•	

1.6	Security
Mode	Criterion / Indicator
1	Security event resulting in loss of control of the systems necessary to establish or maintain cold shutdown [1 or 2] 1. Hostile armed force has taken control of the control room or the remote shutdown panel
All	2. Hostile armed force has taken control of plant equipment such that Ops personnel report the inability to operate equipment necessary to maintain the following functions [a or b or c]:
λ	a Subcriticality b. Core cooling c. Heat Sink
,	Security event has <u>or</u> is occurring which results in actual or likely failures of plant functions needed to protect the public
All	[1 or 2] 1. VITAL AREA, other than the control room, has been penetrated by a hostile armed force
,	2. Suspected BOMB detonates within a VITAL AREA
	Credible Security event which indicates an actual or potential substantial degradation in the level of safety of the plant [1 or 2 or 3]
All	 BOMB discovered within a VITAL AREA CIVIL DISTURBANCE ongoing within the PROTECTED AREA
,	3. PROTECTED AREA has been penetrated by a hostile armed force
	Refer to Figure 4-A for a drawing of the PROTECTED AREA
1 1	Credible Security event which indicates a potential degradation in the level of safety of the plant [1 or 2]
	1. BOMB discovered within the PROTECTED AREA
All -	Security Shift Supervisor reports one or more of the events listed in Table 4-4
	Refer to Figure 4-A for a drawing of the

	All	material requiring offsite response <u>or</u> monitoring are expected unless further degradation of safety systems occurs.	NUSUALIBYE
	t.	Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive	M
,	ų L		AT
	All	levels.	JRIT
	,	Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA protective action guideline exposure	
		Fronts are in present as beauty and the	
	, ,		SIT
	All	AREA BOUNDARY. (Refer to Figure 4-C on preceding page.)	BAR
	A 17	functions 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 outside the EXCLUSION	Var
		Events are in process <u>or</u> have occurred which involve actual <u>or</u> likely major failures of plant	
	·	,	GBN
	All	expected to exceed EPA protective action guidelines exposure levels outside the EXCLUSION AREA BOUNDARY. (Refer to Figure 4-C on preceding page.)	BRAND
	:	involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases can be reasonably	

Emergency Director Judgement

Criterion / Indicator

Events are in process or have occurred which

Mode

Table 4-3 EQUIPMENT REQUIRED AT SHUTDOWN PANEL

One Auxiliary Feedwater Pump
One Atmospheric Steam Dump
One Charging Pump
One Boric Acid Pump and Boration Valve
2CHS*FCV122

Table 4-4 SECURITY EVENTS

- . SABOTAGE/INTRUSION has <u>or</u> is Occurring Within the PROTECTED AREA (Figure 4-A)
- b. HOSTAGE/EXTORTION Situation That Threatens to Interrupt Plant Operations
- E. CIVIL DISTURBANCE Ongoing Between the SITE PERIMETER and PROTECTED AREA (Figure 4-A)
- Hostile STRIKE ACTION Within the PROTECTED AREA Which Threatens to Interrupt Normal Plant Operations (Judgement Based on Behavior of Strikers and/or Intelligence Received) (Figure 4-A)
- A credible site-specific security threat notification.

AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO. LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under severe challenge.

> PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

> The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

> RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

> RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

> SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

> SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

> The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

> STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping,scratches) should not be included.

VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

EPP/I-1b

5.1	Earthquake		5.2	Tornado
Mode	Criterion / Indicator		Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"			Refer to Tab 1 "Fission Product Barrier Matrix"
v		1	3 1 1	e sha y ga a sa sa sa
* *	,			i i i
	i, , i			,
	,			
		,]		
		- 1		
	ş	- 1		
	,		,	,
	,	l		
			•	
	D.C. a. W. J. a. W. a. a. D. a. d. a. D. a. i. a. M. d. d. a. "	ŀ		Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"	·		Refer to Tab 1 Pission Product Burrer Man
		.		
	,	l		,
		1	1	
		ļ		
			•	,
	, ,			
		,		•
			~	•
				,
	Earthquake greater than 0.06g acceleration			Tornado or high wind strikes any structu
	occurs [1 and 2]	İ		listed in Table 5-1 and results in structur
•	1. A seismic event has occurred as indicated by			damage [1 and 2]
	Ann A10-5H "Init of Seismic Exceed Preset			1. Tornado or high wind strikes any structu
r K	and/or Spectral Accelerations" 2. [a and b]			listed in Table 5-1
	a. One or more alarm lamps and horn		,	2. [a or b]
4	energized on the Seismic Warning panel	Ť		a. Confirmed report of any VISIBI
All	[2ERS-ANN-1] b. Review of the printout on 2ERS-RSA-1	Ì	All	b. Control room indications of degrad
	Response Spectrum Analyzer reveals an		*	safety system or component respon
	acceleration >0 06g has occurred (see 20M-45.4F "Seismic Instrumentation	,		within listed structures due to event
	Central Control Cabinet [2ERS-CCC-1]		,	-
,	Running")		, ,	• • • • • • • • • • • • • • • • • • • •
	Also refer to AOP 1/2.75 3 "Acts of Nature-			
	Earthquake"			Tornado within the SITE PERIMETER
	Earthquake detected by site seismic instrumentation >0.01g acceleration [1 and 2].	` ~~	ı	
	1. Ann A10-5H "Init of Seismic Exceed Preset		1	1. Plant personnel report a tornado has b
	and/or Spectral Accelerations" indicates			sighted within the SITE PERIMET (refer to Figure 5-A)
	initiation of the Accelerograph Recording	,		(Telef to Figure 3-14)
A 11	System 2. [a or b]	,	All	
All			Ан	
	a. Ground motion sensed by plant personnel			1
	b. Unit 1 reports seismic event detected on	,		
;	unit instrumentation	١,	<u> </u>	
	•	`	ĺ	
	•	1.		

Figure 5-A Site Perimeter

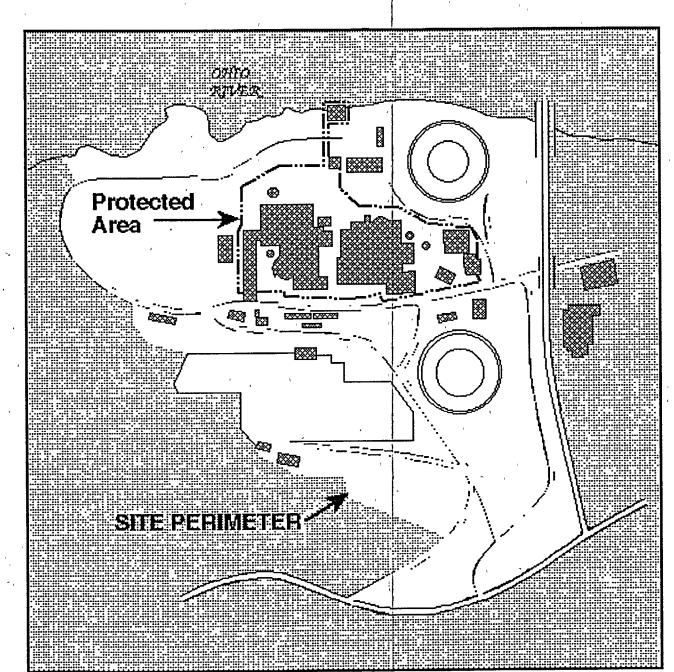


Table 5-1 Plant Structures Associated With Tornado/Hi Wind and Aircraft EALs

Containment Building Safeguards Building Primary Aux. Building
Fuel Handling Building
RWST (2QSS-TK21)
24 ton CO2 unit

Control Bldg
Cable Vault and Rod Control Bldg
Main Steam Valve Room

Main Intake Structure
Demin. Water Sto. (2FWE-TK-210)

Diesel Generator Building

Service Building (incl. FW Reg Vlv Rm),

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to plotentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO. LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

indicates that a CSF is under severe challenge.

PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power. (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip: (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

Mode	Aircraft/Projectile Crash Criterion / Indicator
GBNBRAN	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
SITTE AREA	
	Aircraft or PROJECTILE impacts (strikes) any plant structure listed in Table 5-1 resulting in structural damage [1 and 2]
ALL	Plant personnel report aircraft or PROJECTILE has impacted any structure listed in Table 5-1 on previous page
AE	 2. [a or b] a. Confirmed report of any VISIBLE DAMAGE to specified structures b. Control Room indications of degraded safety system or component response (within listed structures) due to event
=	Aircraft crash or PROJECTILE impact within the SITE PERIMETER
NG ALI	Plant personnel report aircraft crash or PROJECTILE impact within the SITE PERIMETER (refer to Figure 5-A on previous page)

5.4	River Level HIGH
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
ŀ	
_	,
Ì	
,	
	,
	,
~	,
,	
	Refer to Tab 1 "Fission Product Barrier Matrix"
	rejet to tuo 1 1 1551011 1 100001 1001 1001 1101 11
	,
	,
	· · · · · ·
	,
	,
	, , ,
1	
•	
	River water level > 705 Ft mean sea level
T.	[1 or 2]
·	1. 1LR-CW-101, if accessible, indicates >705 mean sea level
ALL	National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) reports Montgomery Lower Pool stage height
*	>52.48 Ft
t	
1	
	Note: Mean Sea Level = stage height + 652 52Ft
	River water level >700 Ft Mean Sea Level [1 or 2]
,	1. 1LR-CW-101 indicates > 700 Ft Mean Sea Level
ALL	2. National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) reports Montgomery Lower Pool stage height >47.48 Ft
,	
	1

Refer to Tab 1 "Fission Product Barrier Matrix"		River Level LOW
River water level <648.6 Ft Mean Sea Level [1 or 2] 1. ILR-CW-101 indicates <648.6 Ft Mean Sea Level Level 2. National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) Reports Montgomery Lower Pool stage height < -3.92 Ft Note: Mean Sea Level = stage height + 652 52 Ft	Mode	
River water level <648.6 Ft Mean Sea Level [1 or 2] 1. 1LR-CW-101 indicates <648.6 Ft Mean Sea Level ALL 2. National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) Reports Montgomery Lower Pool stage height <-3.92 Ft Note: Mean Sea Level = stage height + 652 52 Ft	, ,	Refer to Tab 1 "Fission Product Barrier Matrix"
River water level <648.6 Ft Mean Sea Level [1 or 2] 1. 1LR-CW-101 indicates <648.6 Ft Mean Sea Level ALL 2. National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) Reports Montgomery Lower Pool stage height < -3.92 Ft Note: Mean Sea Level = stage height + 652 52 Ft		
ALL 1. ILR-CW-101 indicates <648.6 Ft Mean Sea Level 2. National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) Reports Montgomery Lower Pool stage height < -3.92 Ft Note: Mean Sea Level = stage height + 652 52 Ft		Refer to Tab 1 "Fission Product Barrier Matrix"
ALL 1. ILR-CW-101 indicates <648.6 Ft Mean Sea Level 2. National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) Reports Montgomery Lower Pool stage height < -3.92 Ft Note: Mean Sea Level = stage height + 652 52 Ft	,	
Not Applicable	ALL	 1. ILR-CW-101 indicates <648.6 Ft Mean Sea Level 2. National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) Reports Montgomery Lower Pool stage height < -3.92 Ft
'		Not Applicable

5.6	Watercraft Crash	Att
Mode	Criterion / Indicator	
-	Refer to Tab 1 "Fission Product Barrier Matrix"	
∫.		
1		2
		2
}	'	
ļ	-	HZ.
- 1	• •	
i		
	-	
1	Refer to Tab 1 "Fission Product Barrier Matrix"	
,		
1)	
1		2
- 4	· .	
• ,		Y
,		
, }	,	
' }		
		_
	Refer to Tab I "Fission Product Barrier Matrix"	
,		
•		
		X
,	5.	
	,	7
	,	
,		
	Watercraft strikes primary intake structure and results in a reduction of Service Water flow	
	[1 and 2]	17
	Plant personnel report a watercraft has struck	3
	the primary intake structure	
ALL	2. SWS flow reduction indicated by sustained	
	pressure reduction to <30 psig on 2SWS-PI-	F
,,	113A and/or 113B	70
,		S
		12

Refer to AOP 2.30.1 "Loss of Service Water"

AREA EMERGENCY: `See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i e, the basis of the declaration). All classifications are based on an assessment (ie., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these RED PATH: Monitoring of one or more CSFs by the EOPs which assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under severe challenge.

> PROJECTILE: An object ejected, thrown, or launched towards a plant structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

> The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip: (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

HOSTAGE: A person or object held as leverage against the station to With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

> VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or vessel water level (RVLIS full range) and/or decreasing trend on core reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering Surface blemishes (e.g., paint chipping, scratches) should not be included.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure. destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation,

	6.1	Loss
-		
GONBRAL	Mode	Refer to
		Refer t
E AREA	•	ı
SIT	, ,	Inabil
ALBRT	5 6	[1 and 1. U 2. [a a. b
		c
JAIC BYBNT	5	UNPI cold tempe [1 and 1. U. 2. [a
UNUSI	-	b c
	<u> </u>	

	6.1	Loss of Shutdown Systems
-	Mode	Criterion / Indicator
		Refer to Tab 7. J "Gaseous Effluents"
		Refer to Tab 7.1 "Gaseous Effluents"
	1	
	, , , , , , , , , , , , , , , , , , ,	
	,	Inability to maintain unit in cold shutdown [1 and 2]
	5 6	1. UNPLANNED Loss of RHS or CCP or SWS 2. [a or b or c] a. Core exit thermocouples (CETC) (if available) indicate the temperature has increased >10 F and has exceeded 200F. b. (w/RHS in service) RHS inlet temperature has increased >10 F and has exceeded 200 F. c. (w/o CETCs or RHS), loss has exceeded 30 minutes or there is evidence of
		boiling in the Rx vessel. UNPLANNED loss of any function needed for cold shutdown that results in a core exit temperature increase of more than 10 F [1 and 2]
	5	 UNPLANNED Loss of RHS or CCP or SWS [a or b or c] Core exit thermocouples (CETC) (if available) indicate the temperature has increased >10 F (W/RHS in service) RHS inlet
	,	temperature has increased >10 F c. (w/o CETCs or RHS), loss has exceeded 15 minutes

6.2	RCS Inventory - Shutdown
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	A 41
	,
	,
	`
,	t .
	Loss of water level in the reactor vessel that has
,	or will uncover fuel in the reactor vessel [1] and 2]
	[1 ana 2]
	1. [a or b]
5	a. Loss of RHS or CCP or SWS
6	b. Loss of RCS Inventory with inadequate makeup
Ü	Шаксир
	2. [a and b]
1	a. Ops personnel report 2RCS-LI-102,
	LR-102 RCS level instrumentation (if available) in the Control Room
	i avaliable) in the Colitor Room
ı	indicates a level drop to 0 inches b. Other confirmed indications of fuel
1	indicates a level drop to 0 inches
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	indicates a level drop to 0 inches b. Other confirmed indications of fuel
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery Not Applicable
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery Not Applicable Loss of Reactor Coolant System Inventory with
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery Not Applicable Loss of Reactor Coolant System Inventory with inadequate make-up
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery Not Applicable Loss of Reactor Coolant System Inventory with inadequate make-up [1 and 2]
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery Not Applicable Loss of Reactor Coolant System Inventory with inadequate make-up [1 and 2] 1. Ops personnel report 2RCS-LI-102, LR-102
5	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery Not Applicable Loss of Reactor Coolant System Inventory with inadequate make-up [1 and 2] 1. Ops personnel report 2RCS-LI-102, LR-102 RCS level instrumentation in the Control
5 6	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery Not Applicable Loss of Reactor Coolant System Inventory with inadequate make-up [1 and 2] 1. Ops personnel report 2RCS-LI-102, LR-102
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery Not Applicable Loss of Reactor Coolant System Inventory with inadequate make-up [1 and 2] 1. Ops personnel report 2RCS-LI-102, LR-102 RCS level instrumentation in the Control Room indicates a level drop to less than 14.5 inches
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery Not Applicable Loss of Reactor Coolant System Inventory with inadequate make-up [1 and 2] 1. Ops personnel report 2RCS-LI-102, LR-102 RCS level instrumentation in the Control Room indicates a level drop to less than 14.5 inches 2. Ops personnel report inability to make-up
	indicates a level drop to 0 inches b. Other confirmed indications of fuel uncovery Not Applicable Loss of Reactor Coolant System Inventory with inadequate make-up [1 and 2] 1. Ops personnel report 2RCS-LI-102, LR-102 RCS level instrumentation in the Control Room indicates a level drop to less than 14.5 inches

	Loss of AC (Shutdown)
Mode	Criterion / Indicator
,	Refer to Tab 7.1 "Gaseous Effluents"
	1
	, , , , , ,
	•
	·*
	ŕ
'	
,	,
	Refer to Tab 7.1 "Gaseous Effluents"
	,
	,
,	
	•
	,
~	1.0
	,
	,
	,
,	1
	UNPLANNED loss of offsite and onsite AC
	power for >15 minutes
	1. AE and DF 4KV emergency buses not
-	energized from Unit 2 sources for >15
•	minutes
5 '	
6	
De-	•
Fuel	Also refer to Tab 6.1 "Loss of Shutdown Systems"
	Also rejer to 1 ab 0.1 Loss of Shutdown Systems
	1
,	
	UNPLANNED loss of all offsite power for >15
	minutes
	[1 and 2]
	1. 2A and 2D 4KV normal buses de-energized
	1. 2A and 2D 4KV normal buses de-energized for >15 minutes
-	
5 6	2. Either diesel generator is supplying power to
o De-	its respective emergency bus
Fuel	•
-	1
1	

6.4		Loss of DC (Shutdown) Criterion / Indicator	EPP/I-1b Att 1
Mode		Refer to Tab 7.1 "Gaseous Effluents"	રે કર્યો કહે છે. સ્ટાર્ટિક સ્ટાર્ટિક
		Rejer to 1 ab 7.1 Gaseous Efficients	
t a			
		\.	
		,	5
			174
			3
			ひ
,			
		, ,	
		Refer to Tab 7.1 "Gaseous Effluents"	
		· -	
ı			
	,	•	
٠,			
	ľ		9
		1	
			7
•			
		, ,	
k			
	-	Refer to Tab 6.1 "Loss of Shutdown Systems"	
,			
ı	[
	. *		
-		* 2 °	
`		,	
		-	
	1		
'	1:		
,	<u> </u>	UNPLANNED loss of the required train of DC	
		power for >15 minutes	
	1	[1 or 2]	
		V-10-4 VDC DC 1 21	
,	1	1. Voltage <110.4 VDC on DC buses 2-1 and 2-3 for >15 minutes if train A is the priority	
		train	HAR
5		2. Voltage <110.4 VDC on DC buses 2-2 and	
6	F	2-4 for >15 minutes if train B is the priority	V
De		train	
Fue	:I 		S
	ŀ		
1	1		يلير سهرير

Revision 2

SHUTDOWN SYSTEMS DEGRADATION - U2

AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these RED PATH: Monitoring of one or more CSFs by the EOPs which 'assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under severe challenge.

> PROJECTILE: An object ejected, thrown, or launched towards a plan structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

indicates that a CSF is under extreme challenge.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason inhalation or skin contact (e.g., chlorine)

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability. the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or vessel water level (RVLIS full range) and/or decreasing trend on core reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

	6.5 Mode	Fuel Handling Criterion / Indicator
. 733	MIOUE	Refer to Tab 7.1 "Gaseous Effluents"
	, i	, ,
	,	
-		Refer to Tab 7.1 "Gaseous Effluents"
	1	
		,
		,
	,	
	, v	
	1	Major damage to irradiated fuel; or loss of
	y	water level that has <u>or</u> will uncover irradiated fuel outside the reactor vessel [1] and 2]
	•	1. VALID HIGH alarm on 2RMF-RQ202
		[1031], 2HVR-RQ104A/B [1024, 1028], 2RMF-RQ301A/B [1032, 2032], or 2RMR-
	ALL	RQ203 [1025]
		2. [a or b]
	ı	a. Plant personnel report damage of irradiated fuel sufficient to rupture fuel
		rods ,
		b. Plant personnel report water level drop has or will exceed available makeup
		capacity such that irradiated fuel will be uncovered
		Refer to Tab 6 2 for In-vessel Uncovery
	,	UNPLANNED loss of water level in spent fuel pool or reactor cavity or transfer canal with
		fuel remaining covered
		[1 and 2 and 3]
	ALL	1. Plant personnel report water level drop in spent fuel pool or reactor cavity, or transfer canal
		2. VALID HIGH alarm on 2RMR-RQ203 [1025] or 2RMF-RQ-202 [1031]
	-	3. Fuel remains covered with water
	,	
	l.	1

Mode	Inadvertent Criticality Criterion / Indicator
,	Refer to Tab 7.1 "Gaseous Effluents"
	•
` '	
'	
ļ	·
11	
,	- ' '
,	
	Refer to Tab 7.1 "Gaseous Effluents"
,	
	, ,
,	
	,
	, ,
ĺ	
,	-
	Inadvertent reactor criticality
	1. Nuclear instrumentation indicate
	unanticipated sustained positive startup rate
,	
- 3	
4	
3 4 5 6	
\ °	
Ì	
1	· · · · · · · · · · · · · · · · · · ·
	<u>'</u>
	* · · ·
	Not Applicable
,	
,	1.2
	1
1	

INTENTIONALLY BLANK

AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i e, the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these RED PATH: Monitoring of one or more CSFs by the EOPs which assessments to be completed within 15 minutes (unless otherwise noted) of indicates that a CSF is under extreme challenge. indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i.e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 VALID: An indication or report or condition is considered to be VALID minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

combustible gases will not explode due to ignition.

LCO. LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under severe challenge.

> PROJECTILE: An object ejected, thrown, or launched towards a pla structure. The source of the projectile may be onsite or offsite. Potential for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip: (4) Safety Injection System Activation

The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by 'a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes).

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or vessel water level (RVLIS full range) and/or decreasing trend on core reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

	<u> </u>	
NOTE:	The values below, if exceeded, indicate the need to perform the	ne specified dose projection/assessment, as
*	listed at the bottom of each column. If the assessment can	not be completed within 15 minutes (60
,	minutes for UE), the declaration shall be made based on the	VALID reading.
	<u>-</u>	

NOTE: These monitors have the ability to divert or terminate effluent flow. Ensure that a release is in progress prior to using the EAL's.

	Column 1		Column 2		Column 3		Column 4	
Λ	UE		Alert 200x the ODCM Limit		Site		General	
f a RWDA (Batch Release) is Applicable	2x the ODC		l i		- /-	uCi/ml	n/a	uCi/ml
2SGC-RQ100 [1065	1.97E-03	uCi/ml	n/a	uCi/ml	n/a	uCi/mi uCi/cc	n/a	uCi/cc
2HVS-RQ101B [2039] RBC Purge	1.48E-04	uCi/cc	1.48E-02	uCi/cc	n/a		n/a.	
2HVS-RQ109B LR [2040] RBC Purge	6.36E-04	uCi/cc	6.36E-02	uCi/cc	n/a	uCi/cc		uCi/cc uCi/sec
2HVS-RQ109B Eff [5040] RBC Purge	2.26E+03	uCi/sec	2.26E+05	uCi/sec	n/a	uCi/sec	n/a	
RM-1GW-108B (GWST)	7.86E+05	cpm	n/a	cpm	n/a	cpm	n/a	cpm
RM-1GW-109 Channel 5 (GWST)	n/a	cpm	n∤a	cpm	n/a	cpm	n/a	cpm
or All Other Unplanned Releases	2x the ODCM Limit		200x the ODCM Limit					
•				4	,			
LCRS Unfiltered Pathway					İ			
also called Ventilation Vent)	,							
2HVS-RQ101B [2039]	6.02E-04	uCi/cc	6.02E-02	uCi/cc	1.72E-01	uCi/cc	n/a	uCi/co
SLCRS Filtered Pathway	A.							
also called Elevated Release)			i 'i	i.				
2HVS-RQ109B LR [2040]	2.12E-04	uCi/cc	2.12E-02	uCi/cc	n/a	uCi/cc	n/a '	uCi/c
2HVS-RQ109B MR [3040]	n/a	uCi/cc	n/a	uCi/cc	3.88E-02	uCi/cc	3.88E-01	uCi/c
2HVS-RQ109B HR [4040]	n/a	uCi/cc	n/a	uCi/cc	3.88E-02	uCi/cc	3.94E-01	uCi/c
2HVS-RQ109B Eff [5040]	5.88E+03	uCi/sec	5.88E+05	uCi/sec	1.04E+06	uCi/sec	1.04E+07	uCi/se
Decontamination Building Vent	,			4				
2RMQ-RQ301B [2033]	6.30E-03	uCi/cc	n/a	, uCi/cc	n/a	uCi/cc	n/a	uCi/co
Waste Gas Storage Vault Vent			,	,		1		
2RMQ-RQ303B [2037]	5.16E-02	uCi/cc	n/a	uCi/cc	n/a	uCi/cc	n/a	uCi/c
	,	, ,			•			
Condensate Polishing Building Vent	2 225 02	uCi/cc	3.22E-01	uCi/cc	n/a	uCi/cc	n/a	uCi/c
2HVL-RQ112B [2013]	3.22E-03	uCI/CC	3.22E-01	uCI/CC	IVA.	- uchec		uche
Main Steam Reliefs			1	011	i ggp 01	C:/	1.77E-01	uCi/c
2MSS-RQ101A/101B/101C [1005/3005/5005]	n/a	uCi/cc	n/a	uCi/cc	i.77E-01	uCi/cc	1.//E-UI	исис
2MSS-RQ101A/101B/101C Eff	n/a	uCi/sec	n/a	uCi/sec	5.10E+05	uCi/sec	5.10E+06	uCi/se
[2005/4005/6005]			,		ı			
iouid Effuent Pothwere						1	ı	
Liquid Effluent Pathways	1.97E-03	uCi/ml	η/a	uCi/ml	n/a	uCi/ml	n/a	uСi/п
2000-1000 [1005]	8.56E-05	uCi/ml	8.56E-03	uCi/ml	n/a	uCi/ml	n/a	uCi/n
2SWS-RQ101 [1068] 2SWS-RQ102 [1067]	8.56E-05	uCi/ml	8.56E-03	uCi/ml	n/a	uCi/ml	n/a	uCi/m

		* '
	7.1	Gaseous Effluents
	Mode	Criterion / Indicator
	-	EAB dose resulting from an actual or imminent Release of gaseous radioactivity that exceeds 1000 mR TEDE or 5000 mR child thyroid CDE for the actual or projected duration of the release [1 or 2 or 3]
RA	All	1. A VALID gas effluent rad monitor reading exceeds the values in Column 4 of Table 7-1 fo >15 minutes, unless dose projections within this

- time period confirms that the CRITERION is NOT exceeded
- Field survey results indicate EAB dose >1000 mR β-y for the actual or projected duration of the
- EPP dose projection results indicate EAB dose >1000 mR TEDE or >5000 mR child thyroid CDE for the actual or projected duration of the release
- EAB dose resulting from an actual or imminent release of gaseous radioactivity that exceeds 100 mR TEDE or 500 mR child thyroid CDE for the actual or projected duration of the release [1 or 2 or 3]
 - 1. A VALID gas effluent rad monitor reading exceeds the values in Column 3 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded
 - Field survey results indicate EAB dose >100 mR β-y for the actual or projected duration of the
 - EPP dose projection results indicate EAB dose >100 mR TEDE or >500 mR child thyroid CDE for the actual or projected duration of the release

Any UNPLANNED release of gaseous radioactivity that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes

[1 or 2 or 3]

All

Ali

All

- 1. A VALID gas effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded
- Field survey results indicate >10 mR/hr β-γ at the EAB for >15 minutes
- EPP dose projection results indicate EAB dose >10 mR TEDE for the duration of the release

Any UNPLANNED release of gaseous radioactivity that exceeds 2 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 60 minutes

[1 or 2 or 3]

- 1. A VALID gas effluent rad monitor reading exceeds the values in Column 1 of Table 7-1 for >60 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded
 - Field survey results indicate >0 1 mR/hr β-γ at the EAB for >60 minutes
 - 3. EPP dose projection results indicate EAB dose >0 1 mR TEDE for the duration of the release

Mode	Criterion / Indicator
1	Not Applicable
, ,	,
1	,
	,
1	
	1
	,
	,
	9
•	,
	Not Applicable
	,
	, ,
•	
	'
	,
	I .
	C. P. J. J. Singabile
	Any UNPLANNED release of liquid radioactivity that exceeds 200 times Technical Specification
	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15
,	that exceeds 200 times Technical Specification
,	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading
,	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for
,	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is
All	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded
All	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6 8 6a/Offsite Dose Calculation
All	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6 8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid
All	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6 8 6a/Offsite Dose Calculation
All	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6 8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid radioactivity >15 minutes in duration
All	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6.8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid radioactivity >15 minutes in duration Any UNPLANNED release of liquid radioactivity to the environment that exceeds 2 times Technical
	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6.8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid radioactivity >15 minutes in duration Any UNPLANNED release of liquid radioactivity to the environment that exceeds 2 times Technical
All	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6 8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid radioactivity >15 minutes in duration Any UNPLANNED release of liquid radioactivity to the environment that exceeds 2 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual
	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6.8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid radioactivity >15 minutes in duration Any UNPLANNED release of liquid radioactivity to the environment that exceeds 2 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 60 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading
	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6.8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid radioactivity >15 minutes in duration Any UNPLANNED release of liquid radioactivity to the environment that exceeds 2 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 60 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 1 of Table 7-1 for
	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6.8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid radioactivity >15 minutes in duration Any UNPLANNED release of liquid radioactivity to the environment that exceeds 2 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 60 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 1 of Table 7-1 for >60 minutes, unless dose projectionswithin this time period confirms that the CRITERION is
	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6.8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid radioactivity >15 minutes in duration Any UNPLANNED release of liquid radioactivity to the environment that exceeds 2 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 60 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading
7 -	that exceeds 200 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless dose projections within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times Technical Specification 6.8 6a/Offsite Dose Calculation Manual Limit for an unmonitored release of liquid radioactivity >15 minutes in duration Any UNPLANNED release of liquid radioactivity to the environment that exceeds 2 times Technical Specification 6.8.6a/Offsite Dose Calculation Manual Limit for 60 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 1 of Table 7-1 for >60 minutes, unless dose projectionswithin this time period confirms that the CRITERION is

AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under severe challenge.

> PROJECTILE: An object ejected, thrown, or launched towards a play structure. The source of the projectile may be onsite or offsite. Potentia for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

> The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

> RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

> RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

> SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

> SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

> The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason inhalation or skin contact (e.g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation. by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i e., within 15 minutes)

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation

Mode	Criterion / Indicator Refer to Tab 1 "Fission Product Barrier Matrix" or Tab 7.1 "Gaseous Effluents"
	•
	;
, ,	•
	_
:	
	Refer to Tab 1 "Fission Product Barrier Matrix" or
	Tab 7.1 "Gaseous Effluents"
,	,
	4
,	-
	,
i	
•	,
•	,
	UNPLANNED increases in radiation levels within the facility that impedes safe operations or establishment or maintenance of cold shutdown [1 or 2]
All	1. VALID area radiation monitor readings or survey results exceed 15 mR/hr in the Control Room 2RMC-RQ201/202 [1069/1072] or PAF 2RMS- RQ223 [1071] for >15 minutes 2. [a and b] a VALID area radiation monitor readings or
, 	survey results exceed values listed in Table 7-2 b Access restrictions impede operation of systems necessary for safe operation or the
1	ability to establish or maintain cold shutdown See Note Below UNPLANNED increase in radiation levels within the
;	facility 1. VALID area radiation monitor readings increase
All	by a factor of 1000 over normal levels for >15 minutes
	Note: In either the UE or ALERT EAL, the ED must determine the cause of increase in radiation levels and review other CRITERIA/INDICATORS for applicability (e.g., a dose rate of 15 mR/hr in the
-	Control Room could be caused by a release associated with a more significant event).
-	
	All

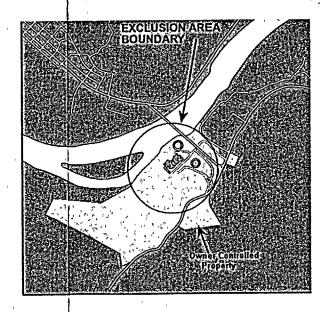
Mode	Criterion / Indicator Refer to Tab 7.1 "Gaseous Effluents"
· ·	Rejer to 140 1.1 Gaseous Efficients
	large of the second second
	<u>'</u>
ı	1
	,
,	· ·
	,
	•
	Refer to Tab 7.1 "Gaseous Effluents"
,	
	,
	•
	, i
,	
1	
ı	3
	Major damage to irradiated fuel; or loss of water level that has or will uncover irradiated fuel outside
•	the reactor vessel
	[1 and 2]
	1. VALID HIGH alarm on 2RMR-RQ203 [1025] or 2RMF-RQ202 [1031] or 2RMF-RQ301 A/B
	[1032/2032] or 2HVR-RQ104A/B [1024/1028]
P1	2. [a or b]
All,	a. Plant personnel report damage of irradiated fuel
,	sufficient to rupture fuel rods b. Plant personnel report water level drop has on
J	will exceed available makeup capacity such
,	that irradiated fuel will be uncovered
	Refer to Tab 6 "Shutdown Systems" for In-vesses
	Uncovery UNPLANNED loss of water level in spent fuel pool
1	or reactor cavity or transfer canal with fue
	remaining covered [1 and 2 and 3]
, ,	
× ,	1. Plant personnel report water level drop in spent fuel pool or reactor cavity, or transfer canal
All	2. VALID HIGH alarm on 2RMR-RQ203 [1025] or
All	2RMF-RQ202 [1031]
All	
All.	2RMF-RQ202 [1031] 3. Fuel remains covered with water

Table 7-2
Areas Associated With EAL 7.3

EPP/I-1	b
Attachment	1

LOCATION	INDICATOR	READING	
730' Service Bldg (H2 Analyzers)	Survey Results	>100 mR/hr general area	
PASS Cubicle (735' PAB)	RMP-RQ-204 [1050]	>100 mR/hr general area	
Chem Sample Panel (718' PAB)	RMP-RQ-210 [1059]	>100 mR/hr general area	
737' Safeguards (H2 Control System	RMP-RQ-205A,B	>100 mR/hr general area	
Operations)	[1049]		
741' Safeguards (Safe Shutdown Valves)	Survey Results	>100 mR/hr general area	
738'Cable Vault (RHR Suction Valves)	Survey Results	>100 mR/hr general area	
773' PAB (WRGM Sampling)	Survey Results	>100 mR/hr general area	
788' Main Steam & Cable Vault	Survey Results	>100 mR/hr general area	_
Alternate Shutdown Panel Room	Survey Results	>100 mR/hr general area	-
West Cable Vault (730')	Survey Results	>100 mR/hr general area	_
A Penetrations (713')	Survey Results	>5 R/hr general area	-
C&D Penetrations (718')	Survey Results	>100 mR/hr general area	-
Cable Vault (755')	Survey Results	>100 mR/hr general area	_
CNMT Instr Air Room (773')	Survey Results	>100 mR/hr general area	_
AE/DF Switchgear	Survey Results	>100 mR/hr general area	_
Turbine Bldg 735' West	Survey Results	>100 mR/hr general area	_
EDG 2-1, 2-2	Survey Results	>5 R/hr general area	_

Figure 7-A EXCLUSION AREA BOUNDARY



AREA EMERGENCY: See EAL 4.7

BOMB: A fused explosive device (See EXPLOSION)

CIVIL DISTURBANCE: A group of ten (10) or more persons violently protesting station operations or activities at the site.

Each CRITERION identifies the emergency condition and any numeric values which define that condition (i.e., the basis of the declaration). All classifications are based on an assessment (i.e., determination that the condition is VALID) by the Emergency Director that the CRITERION has been met or exceeded. Implicit in this protocol is the necessity for these assessments to be completed within 15 minutes (unless otherwise noted) of indications being available to Control Room operators that an Emergency Action Level (EAL) has been exceeded.

CRITICAL SAFETY FUNCTION (CSFs): A plant safety function required to prevent significant release of core radioactivity to the environment. There are six CSFs: Subcriticality, Core Cooling, Heat Sink, Vessel Integrity (Pressurized Thermal Shock), Integrity (Containment) and Inventory (RCS).

EXCLUSION AREA BOUNDARY (EAB): A boundary surrounding the BVPS units beyond which the postulated UFSAR accidents will not result in population doses exceeding the criteria of 10 CFR Part 100. Refer to Figure 7-A.

EXPLOSION: A rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems or components

EXTORTION: An attempt to cause an action at the station by threat of

FAULTED: (Steam Generator) Existence of secondary side leakage (i e., steam or feed line rupture) that results in an uncontrolled decrease in steam generator pressure or the steam generator being completely depressurized.

FIRE: Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute fires. Observation of flame is preferred but is NOT required if large quantities of smoke and heat are observed.

HOSTAGE: A person or object held as leverage against the station to ensure that demands will be met by the station

INDICATOR(s): Are available via instrumentation, calculations, procedure Entry (AOPs, EOPs, etc.), operator knowledge of plant conditions (pressure, temperatures, etc.) in the Control Room, or reports received from plant personnel, whichever is most limiting, or other evidence that the associated criterion may be exceeded. Inherent in this protocol is the necessity for these assessments to be completed with 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

INEFFECTIVE: The specified restoration action(s) does not result in a reduction in the level of severity of the RED PATH condition within 15 minutes from identification of the Core Cooling CSF Status Tree RED PATH TERMINUS. A reduction in the level of severity is an improvement in the applicable parameters (e.g., increasing trend in reactor vessel water level (RVLIS full range) and/or decreasing trend on core thermocouple temperatures).

INTRUSION/INTRUDER: Suspected hostile individual present in a protected area without authorization.

LOWER EXPLOSIVE LIMIT (LEL): Concentration level below which combustible gases will not explode due to ignition.

LCO, LIMITING CONDITION FOR OPERATION: as specified in the BVPS Technical Specifications, the minimum functional performance level for equipment required for safe shutdown.

ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE ORANGE PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under severe challenge.

> PROJECTILE: An object ejected, thrown, or launched towards a play structure. The source of the projectile may be onsite or offsite. Potenti for damage is sufficient to cause concern regarding the integrity of the affected structure or the operability or reliability of safety equipment contained therein.

> The PROTECTED AREA encompasses all owner controlled areas within the security perimeter fence as shown on Figure 4-A.

> RED PATH: Monitoring of one or more CSFs by the EOPs which indicates that a CSF is under extreme challenge.

> RUPTURED: (Steam Generator) Existence of primary to secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

> SABOTAGE: Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.

> SIGNIFICANT TRANSIENT: An UNPLANNED event involving one or more of the following: (1) Automatic turbine runback >25% thermal reactor power, (2) Electrical load rejection >25% full electrical load; (3) Reactor Trip; (4) Safety Injection System Activation

> The SITE PERIMETER encompasses all owner controlled areas in the immediate site environs as shown on Figure 4-A.

> STRIKE ACTION: A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on the BVPS or one of its vendors. The STRIKE ACTION must threaten to interrupt normal plant operations to be considered.

TOXIC GAS: A gas that is dangerous to life or health by reason inhalation or skin contact (e g., chlorine).

UNPLANNED: An event or action is UNPLANNED if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are UNPLANNED.

With specific regard to radioactivity releases, a release of radioactivity is UNPLANNED if it has not been authorized by a Radioactive Waste Discharge Authorization (RWDA). Implicit in this definition are unintentional releases, unmonitored releases, or planned releases that exceed a condition specified on the RWDA (e.g., alarm setpoints, minimum dilution flow, minimum release times, maximum release rates, and/or discharge of incorrect tank).

VALID: An indication or report or condition is considered to be VALID when it is conclusively verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment (i.e., within 15 minutes)

VISIBLE DAMAGE: Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking, paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

VITAL AREA is any area within the PROTECTED AREA which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation