

EPP/I-1a  
Unit 1  
A5.735B

**RECOGNITION AND CLASSIFICATION**  
**OF EMERGENCY CONDITIONS**

**CONTROLLED  
BVPS UNIT 1**

Revision 1

**EFFECTIVE INDEX**

Issue 8 Rev.	0	OSC Approved	3-12-87
	1	OSC Approved	8-13-87
	2	OSC Approved	10-8-87
	3	OSC Approved	2-9-88
	4	OSC Approved	2-9-89
	5	Non-Safety Related	3-15-89
	6	OSC Approved	4-18-89
	7	OSC Approved	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

**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, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
- 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 205 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

**C. RESPONSIBILITY**

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

**D. ACTION LEVELS/PRECAUTIONS/GUIDANCE**

**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 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.

3.2 Common Plant Conditions

- 3.2.1 IF an event occurs such that both reactor units are affected, e.g., tornado, toxic gas offsite, etc., THEN the senior Nuclear Shift Supervisor shall make the appropriate classification and assume the role of Emergency Director.
- 3.2.2 IF the common plant condition results in a higher emergency classification at one reactor unit, THEN the Nuclear Shift Supervisor 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 IF an event occurs, and a lower or higher plant operating mode is reached before the classification can be made, THEN 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, THEN the event is NOT 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, THEN 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 satisfied.
- 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 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.

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.

### 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 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.

2.1.1 CSF status tree ORANGE PATH or RED PATH conditions

2.1.2 Core exit thermocouple readings above 719 F

- 2.1.3 Reactor vessel full range water level less than 40% (no RCPs)
  - 2.1.4 Elevated RCS activity >300  $\mu\text{Ci/gm}$
  - 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. IF other EALs are applicable, THEN 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 occurrence 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.

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 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.

4.3.2 IF none of the EALs for an initiating condition are met, THEN re-perform 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.

4.4 IF the specified INDICATORS are observed, THEN:

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:**

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 IF the assessment concludes that the CRITERION is met, THEN the classification shall be made. Proceed to Step 5.0
- 4.6 IF the assessment concludes that the CRITERION is not met, THEN re-perform 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 occurrence 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 IF an UNUSUAL EVENT is declared, THEN proceed to EPP/I-2
- 5.2 IF an ALERT is declared, THEN proceed to EPP/I-3
- 5.3 IF a SITE AREA EMERGENCY is declared, THEN proceed to EPP/I-4
- 5.4 IF a GENERAL EMERGENCY is declared, THEN 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 IF the abnormal condition is reportable to the NRC pursuant to 10 CFR 50.72 and NPDAP 5.1, THEN perform the following:
  - 6.1.1 Complete the NRC Event Notification Form, Attachment 4 to EPP/IP-1.1.

6.1.2 Notify First Energy Communications of the event per NPDAP 5.3 and provide the information on the NRC Event Notification Form.

6.2 IF directed by station management, THEN 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. ATTACHMENTS**

1.0 Tabs for Classification of Emergency Conditions

**H. FIGURES**

1.0 Figures are identified on the EAL indices

### 1.1 Fuel Clad Barrier

#### 1.1.1 Critical Safety Function Status

LOSS	Potential LOSS
Core Cooling CSF RED PATH	Core Cooling CSF ORANGE PATH OR Heat Sink CSF RED PATH

-OR-

#### 1.1.2 Five Hottest CETCs

LOSS	Potential LOSS
Greater than 1200 F	Greater than 719 F

-OR-

#### 1.1.3 Reactor Vessel Water Level

LOSS	Potential LOSS
Not Applicable	RVLIS Full Range <40% (no RCPs running)

-OR-

#### 1.1.4 Primary Coolant Activity Level

LOSS	Potential LOSS
RCS activity >300 μCi/gm dose equivalent Iodine-131	Not Applicable

-OR-

#### 1.1.5 Letdown Monitor Indication

LOSS	Potential LOSS
RM-CH101 A or B VALID reading greater than 3.5E5 cpm with letdown unisolated	Not Applicable

-OR-

#### 1.1.6 Containment Radiation Monitors

LOSS	Potential LOSS		
VALID reading exceeds:	Not applicable		
Time After S/D, hrs	RM-219A/B R/hr	RM-201* mR/hr	
0-0.5	250	1500	
0.5-4	140	800	
4-12	74	380	
12-24	42	200	

\* Due to streaming thru airlock

-OR-

#### 1.1.7 Emergency Director Judgement

Any condition that, in the judgement of the NSS/ED, indicates loss or potential loss of the Fuel Clad barrier comparable to the indicators listed above.

LOSS  Potential LOSS

### 1.2 RCS Barrier

#### 1.2.1 Critical Safety Function Status

LOSS	Potential LOSS
Not applicable	RCS Integrity CSF RED PATH OR Heat Sink CSF RED PATH

-OR-

#### 1.2.2 Reactor Vessel Water Level

LOSS	Potential LOSS
RVLIS Full Range <40% (no RCPs running)	Not Applicable

-OR-

#### 1.2.3 RCS Leak Rate

LOSS	Potential LOSS
RCS leak results in loss of RCS subcooling	Unisolable RCS leak that requires an additional charging pump be started with letdown isolated. OR RCS leak causes safety injection actuation indicated by direct entry into EOP E-1 required by EOP E-0

-OR-

#### 1.2.4 Primary to Secondary Leak

LOSS	Potential LOSS
SGTR that results in a safety injection actuation OR Entry into E-3 required by EOPs	Not Applicable

-OR-

#### 1.2.5 Containment Radiation Monitors

LOSS	Potential LOSS		
VALID reading exceeds:	Not Applicable		
Time After S/D, hrs	RM-202 mR/hr	RM-201* mR/hr	
0-0.5	120	1.5	
0.5-4	70	1.0	
4-12	40	0.5	
12-24	20	N/A	

\* Due to streaming thru airlock

-OR-

#### 1.2.6 Emergency Director Judgement

Any condition that, in the judgement of the NSS/ED, indicates loss or potential loss of the RCS barrier comparable to the indicators listed above.

LOSS  Potential LOSS

### 1.3 CNMT Barrier

#### 1.3.1 Critical Safety Function Status

LOSS	Potential LOSS
Not Applicable	CNMT CSF RED PATH OR Actions of FR-C.1 (RED PATH) are INEFFECTIVE

-OR-

#### 1.3.2 Containment Pressure / Hydrogen Conc.

LOSS	Potential LOSS
Rapid unexplained drop in CNMT pressure following initial rise OR CNMT pressure or sump level response NOT consistent with LOCA conditions	CNMT pressure >45 PSIG OR CNMT H2 rises >4% OR CNMT pressure >8 PSIG with less than one full train of CNMT spray

-OR-

#### 1.3.3 Containment Isolation Status

LOSS	Potential LOSS
CNMT isolation is incomplete creating a direct release path to the environment when required	Not Applicable

-OR-

#### 1.3.4 Containment Bypass

LOSS	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	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-

#### 1.3.5 Significant Radioactivity in Containment

LOSS	Potential LOSS		
Not applicable	VALID reading exceeds:		
	Time After S/D, hrs	RM-219A/B R/hr	RM-201* R/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

\* Due to streaming thru airlock

-OR-

#### 1.3.6 Emergency Director Judgement

Any condition that, in the judgement of the NSS/ED, indicates loss or potential loss of the Containment barrier comparable to the indicators listed above.

LOSS  Potential LOSS

### 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.
2. 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.

### CRITERIA

#### GENERAL EMERGENCY

LOSS of any Two (2) barriers and Potential LOSS of third barrier.

OR

LOSS of all three (3) barriers.

#### SITE AREA EMERGENCY

LOSS or Potential LOSS of any Two (2) barriers.

OR

LOSS of one (1) barrier and a Potential LOSS of a second barrier.

#### ALERT

Any LOSS or Potential LOSS of Fuel Clad barrier.

OR

Any LOSS or Potential LOSS of RCS barrier.

#### UNUSUAL EVENT

LOSS or Potential LOSS of CNMT barrier.

See also EAL's:

- 2.4 Fuel Clad Degradation (RCS Specific Activity >LCO)
- 2.5 RCS Unidentified or Pressure Boundry Leakage
- 2.6 RCS Identified Leakage

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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.

**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 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*).*

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**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

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

2.1 Loss of Instrumentation							
Mode	Criterion / Indicator						
	Refer to Tab 1 "Fission Product Barrier Matrix" and Tab 7 "Radiological Effluents"						
1 2 3 4	<p>Inability to monitor a SIGNIFICANT TRANSIENT in progress [1 and 2 and 3 and 4]</p> <ol style="list-style-type: none"> <li>Loss of most (&gt;75%) annunciators or indications</li> <li>SIGNIFICANT TRANSIENT in progress</li> <li>Loss of SER and SPDS</li> <li>Inability to directly monitor any of the following CSFs:                             <table border="0" style="margin-left: 20px;"> <tr> <td>Subcriticality</td> <td>Vessel Integrity</td> </tr> <tr> <td>Core Cooling</td> <td>Containment</td> </tr> <tr> <td>Heat Sink</td> <td></td> </tr> </table> </li> </ol>	Subcriticality	Vessel Integrity	Core Cooling	Containment	Heat Sink	
Subcriticality	Vessel Integrity						
Core Cooling	Containment						
Heat Sink							
1 2 3 4	<p>UNPLANNED loss of most annunciators or indications for &gt;15 minutes with either a SIGNIFICANT TRANSIENT in progress or a loss of non-alarming compensatory indications [1 and 2 and 3]</p> <ol style="list-style-type: none"> <li>UNPLANNED loss of most (&gt;75%) annunciators or indications for &gt;15 minutes</li> <li>NSS judgement that additional personnel (beyond normal shift complement) are required to monitor the safe operation of the unit</li> <li>[a or b]                             <ol style="list-style-type: none"> <li>SIGNIFICANT TRANSIENT in progress</li> <li>Loss of SER and SPDS</li> </ol> </li> </ol>						
1 2 3 4	<p>UNPLANNED loss of most annunciators or indications for &gt;15 minutes [1 and 2]</p> <ol style="list-style-type: none"> <li>UNPLANNED loss of most (&gt;75%) annunciators or indications for &gt;15 minutes</li> <li>NSS judgement that additional personnel (beyond normal shift complement) are required to monitor the safe operation of the unit</li> </ol>						

2.2 Loss of Function	
Mode	Criterion / Indicator
1 2 3 4	<p>Inability to cool the core [1 or 2]</p> <ol style="list-style-type: none"> <li>Actions of FR-C.1 (RED PATH) are INEFFECTIVE</li> <li>[a and b]                             <ol style="list-style-type: none"> <li>Five hottest core exit thermocouples &gt;1200 F; or five hottest core exit thermocouples &gt;719 F with NO RCPs running and RVLIS full range level &lt;40%</li> <li>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</li> </ol> </li> </ol>
1 2 3 4	<p>Loss of function needed to achieve or maintain hot shutdown [1 or 2]</p> <ol style="list-style-type: none"> <li>Ops personnel report a CSF status tree RED PATH terminus for core cooling or heat sink exists</li> <li>Five hottest core exit thermocouples &gt;1200 F; or five hottest core exit thermocouples &gt;719 F with NO RCPs running and RVLIS full range level &lt;40%</li> </ol> <p>Also Refer to Tab 2.3 "Failure of Reactor Protection" and Tab 1 "Fission Product Barrier Matrix"</p>
1 2 3 4	<p>Inability to achieve cold shutdown when required by Technical Specifications [1 and 2 and 3]</p> <ol style="list-style-type: none"> <li>Loss of decay heat removal capability (RHR, CCR, or RPRW)</li> <li>Inability to remove heat via the condenser</li> <li>Shutdown to mode 5 required by T/S</li> </ol>
ALL	<p>UNPLANNED Loss of communications [1 or 2]</p> <ol style="list-style-type: none"> <li>In-plant [a and b and c]                             <ol style="list-style-type: none"> <li>UNPLANNED Loss of All Pax Phones</li> <li>UNPLANNED Loss of All Gaitronics (Page/Party)</li> <li>UNPLANNED Loss of All Radios (Handie-Talkies)</li> </ol> </li> <li>Offsite [a and b and c]                             <ol style="list-style-type: none"> <li>UNPLANNED Loss of ENS</li> <li>UNPLANNED Loss of Bell Lines</li> <li>UNPLANNED Loss of Radios to Offsite</li> </ol> </li> </ol>

2.3 Failure of Rx Protection	
Mode	Criterion / Indicator
1 2	<p>Reactor power &gt;5% after VALID trip signal(s) and loss of core cooling capability [1 and 2]</p> <ol style="list-style-type: none"> <li>Ops personnel report FR-S.1 has been entered and subsequent actions do NOT result in reduction of power to &lt;5% and decreasing</li> <li>[a or b]                             <ol style="list-style-type: none"> <li>Ops personnel report CSF status tree RED PATH terminus exists for core cooling or heat sink</li> <li>Five hottest core exit thermocouples &gt;1200 F; or five hottest core exit thermocouples &gt;719 F with NO RCPs running and RVLIS full range level &lt;40%</li> </ol> </li> </ol>
1 2	<p>Reactor trip failure after VALID Trip signal(s) with reactor power &gt;5% and attempts to cause a manual trip from the control room are unsuccessful.</p> <ol style="list-style-type: none"> <li>Ops personnel report FR-S.1 has been entered and manual reactor trip from control room did NOT result in reduction of power to &lt;5% and decreasing</li> </ol>
1 2	<p>Automatic reactor trip did not occur after VALID trip signal and manual trip from control room was successful [1 and 2]</p> <ol style="list-style-type: none"> <li>VALID reactor trip signal received or required.</li> <li>Manual reactor trip from control room was successful and power is &lt;5% and decreasing</li> </ol>
	Not Applicable

2.4 Fuel Clad Degradation	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
1 2 3 4 5	<p>Reactor coolant system specific activity exceeds LCO (refer to BVPS technical specification 3.4.8) [1 or 2]</p> <ol style="list-style-type: none"> <li>VALID high alarm on RM-CH-101A or B reactor coolant letdown monitor</li> <li>Radiochemistry analysis exceeds Technical Specification 3.4.8.</li> </ol>

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

SYSTEM DEGRADATION - UI

2.1, 2.2, 2.3, 2.4

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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.

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**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.

**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 plant structure. The source of the projectile may be onsite or offsite. Failure for damage is sufficient to cause concern regarding the integrity or 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.

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UNUSUAL EVENT ALERT SITE AREA GENERAL

2.5 RCS Unidentified Leakage	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
1 2 3 4 5*	<p>Unidentified or pressure boundary RCS leakage &gt;10 GPM</p> <p>1. Unidentified or pressure boundary leakage (as defined by Technical Specifications) &gt;10 GPM as indicated below [a or b]</p> <p>a. OST 1.6.2 results</p> <p>b. With RCS temp. and PZR level stable, VCT level dropping at a rate &gt;10 GPM (&gt;1%/min indicated on LI-CH-115 with no VCT makeup in progress)</p> <p><i>*Applies to Mode 5 if RCS Pressurized</i></p>

2.6 RCS Identified Leakage	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
1 2 3 4 5*	<p>Identified RCS leakage &gt;25 GPM</p> <p>1. Identified RCS leakage (as defined by Technical Specifications) &gt;25 GPM as indicated below [a or b]</p> <p>a. OST 1.6.2 or 1.6.2A Results</p> <p>b. UNPLANNED level rise in excess of 25 GPM total into PRT, DG-TK-1, and DG-TK-2</p> <p><i>*Applies to Mode 5 if RCS Pressurized</i></p>

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

2.8 Safety Limit	
Mode	Criterion / Indicator
	Not Applicable
	Not Applicable
	Not Applicable
1 2 3 4 5	<p>Safety Limit Has Been Exceeded [1 or 2]</p> <p>1. The combination of thermal power, RCS temperature, and RCS pressure is greater than the safety limit as determined from BVPS Technical Specifications Figure 2.1-1 "Reactor Core Safety Limit"</p> <p>2. RCS/pressurizer pressure exceeds safety limit (&gt;2735 psig)</p>

UNUSUAL EVENT ALERT SITE AREA GENERAL

2.5, 2.6, 2.7, 2.8

SYSTEM DEGRADATION - UI

## DEFINITIONS/ACRONYMS

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

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	2.9 Turbine Failure		2.10 Steam/Feed Line Break	
	Mode	Criterion / Indicator	Mode	Criterion / Indicator
GENERAL		Refer to Tab 1 "Fission Product Barrier Matrix"		Refer to Tab 1 "Fission Product Barrier Matrix"
		Refer to Tab 1 "Fission Product Barrier Matrix"		Refer to Tab 1 "Fission Product Barrier Matrix"
SITE AREA		Refer to Tab 1 "Fission Product Barrier Matrix"		Refer to Tab 1 "Fission Product Barrier Matrix"
		Refer to Tab 1 "Fission Product Barrier Matrix"		Refer to Tab 1 "Fission Product Barrier Matrix"
ALERT	1 2 3	<p><b>Turbine failure generated missiles cause penetration of a missile shield wall of any area containing safety related equipment</b></p> <p>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</p>		Refer to Tab 1 "Fission Product Barrier Matrix"
	1 2 3	<p><b>Turbine failure results in casing penetration</b></p> <p>1. 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</p>	1 2 3 4	<p><b>UNPLANNED rapid depressurization of the Main Steam System resulting in a rapid RCS cooldown and Safety Injection actuation [1 and 2]</b></p> <p>1. Ops personnel report rapid depressurization of Main Steam System that causes SLI (&lt;500 psig)</p> <p>2. Ops personnel report Safety Injection has actuated</p>

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

- |                       |                       |
|-----------------------|-----------------------|
| Control Room          | Cable Tray Mezz       |
| Electrical Switchgear | Containment           |
| Safeguards            | Primary Aux. Building |
| Diesel Generator Bldg | 1WT-TK-10             |

SYSTEM DEGRADATION - U1

2.9, 2.10, Table 2-1

## DEFINITIONS/ACRONYMS

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*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

3.1 Loss of AC (Power Ops)		3.2 Loss of AC (Shutdown)		3.3 Loss of DC Power	
Mode	Criterion / Indicator	Mode	Criterion / Indicator	Mode	Criterion / Indicator
1 2 3 4	<p>Prolonged loss of offsite <u>and</u> onsite AC power [1 and 2]</p> <ol style="list-style-type: none"> <li>AE <u>and</u> DF 4KV emergency buses <u>NOT</u> energized from Unit 1 sources for &gt;15 minutes</li> <li>[a or b or c] <ol style="list-style-type: none"> <li>Ops personnel report CSF status tree <b>RED PATH</b> <u>or</u> <b>ORANGE PATH</b> terminus exists for core cooling</li> <li>Restoration of either AE <u>or</u> DF 4KV emergency bus is <u>NOT</u> likely from any source within 3 hours of loss</li> <li>Five hottest core exit thermocouples &gt;1200 F <u>or</u> five hottest core exit thermocouples &gt;719 F with no RCPs running <u>and</u> RVLIS full range &lt;40%</li> </ol> </li> </ol>		Refer to Tab 6 "Shutdown System Degradation"		Refer to Tab 1 "Fission Product Barrier Matrix" and Tab 2.2 "Loss of Function", and Tab 6.1 "Loss of Shutdown Systems"
1 2 3 4	<p>Loss of offsite <u>and</u> onsite AC power for &gt;15 minutes</p> <ol style="list-style-type: none"> <li>AE <u>and</u> DF 4KV emergency buses <u>NOT</u> energized from Unit 1 sources for &gt;15 minutes</li> </ol>		Refer to Tab 6 "Shutdown System Degradation"	1 2 3 4	<p>Loss of all vital DC power for &gt;15 minutes</p> <ol style="list-style-type: none"> <li>Voltage &lt;110.4 VDC on DC buses 1-1 <u>and</u> 1-2 <u>and</u> 1-3 <u>and</u> 1-4 for &gt;15 minutes</li> </ol> <p>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"</p>
1 2 3 4	<p>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]</p> <ol style="list-style-type: none"> <li>Either AE <u>or</u> DF 4KV emergency bus is de-energized for &gt;15 minutes</li> <li>The energized AE <u>or</u> DF 4KV emergency bus has only one source of power [a or b] <ol style="list-style-type: none"> <li>Emergency diesel generator</li> <li>1A <u>or</u> 1D 4KV normal bus</li> </ol> </li> </ol>	5 6 De-fuel	<p>UNPLANNED loss of offsite <u>and</u> onsite AC power for &gt;15 minutes</p> <ol style="list-style-type: none"> <li>AE <u>and</u> DF 4KV emergency buses <u>NOT</u> energized from Unit 1 sources for &gt;15 minutes</li> </ol> <p>Also Refer to Tab 6 "Shutdown System Degradation"</p>		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"
1 2 3 4	<p>Loss of offsite power for &gt;15 minutes [1 and 2]</p> <ol style="list-style-type: none"> <li>1A <u>and</u> 1D 4KV normal buses de-energized for &gt;15 minutes</li> <li>Each diesel generator is supplying power to its respective emergency bus</li> </ol>	5 6 De-fuel	<p>UNPLANNED loss of offsite power for &gt;15 minutes [1 and 2]</p> <ol style="list-style-type: none"> <li>1A <u>and</u> 1D 4KV normal buses de-energized for &gt;15 minutes</li> <li>Either diesel generator is supplying power to its respective emergency bus</li> </ol>	1 2 3 4	<p>UNPLANNED loss of one train of DC power for &gt;15 minutes [1 or 2]</p> <ol style="list-style-type: none"> <li>Voltage &lt;110.4 VDC on DC Buses 1-1 <u>and</u> 1-3 for &gt;15 minutes</li> <li>Voltage &lt;110.4 VDC on DC Buses 1-2 <u>and</u> 1-4 for &gt;15 minutes</li> </ol> <p>Refer to Tab 6.4 "Loss of DC (Shutdown)" for modes 5, 6, and defueled</p>

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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 within 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.

**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 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 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.

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**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

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

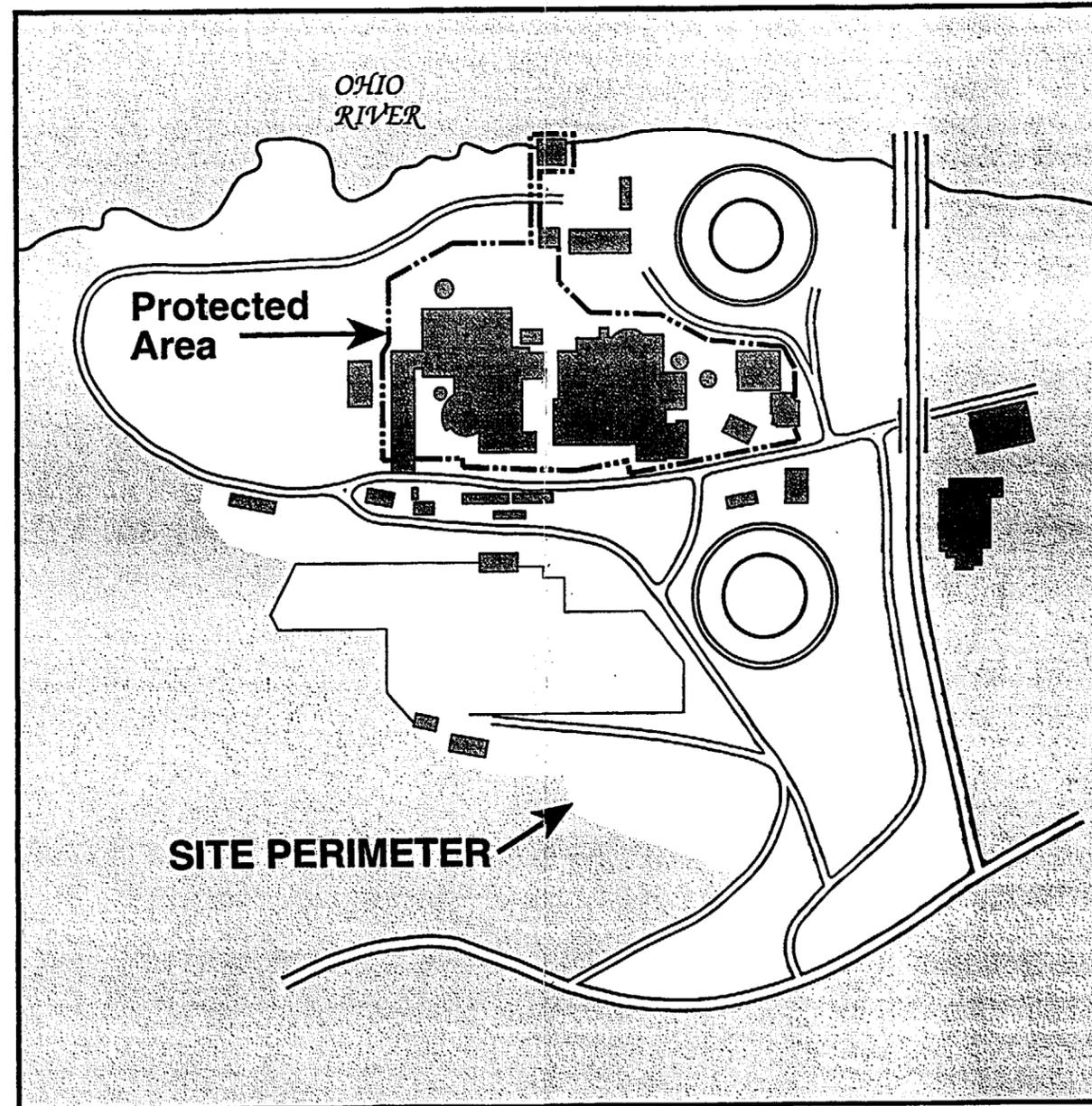
4.1 Fire	
Mode	Criterion / Indicator
1 2 3 4	<p><b>FIRE</b> in the control room, cable tray mezzanine, or process control room resulting in an evacuation of the control room per 1.56C.4 "Alternate Safe Shutdown" and loss of any required equipment results in an uncontrolled RCS Heatup [1 and 2 and 3]</p> <p>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:</p> <p>Charging pump    AFW pump    Diesel generator RPRW pump        BIP            Steam relief path</p> <p>3. Uncontrolled RCS heatup lasting longer than 15 minutes</p>
1 2 3 4	<p><b>FIRE</b> 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"</p> <p>1. 1.56C.4 "Alternate Safe Shutdown" entered</p>
All	<p><b>FIRE</b> in any of the areas listed in Table 4-1 that is affecting safety related equipment [1 and 2]</p> <p>1. <b>FIRE</b> in any of the listed areas in Table 4-1 2. [a or b]</p> <p>a. Ops personnel report <b>VISIBLE DAMAGE</b> to permanent structure or equipment in listed area due to <b>FIRE</b></p> <p>b. Control room indication of degraded system or component (within listed areas) response due to <b>FIRE</b></p>
All	<p><b>FIRE</b> 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</p>

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

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

Control Room	Diesel Gen. Room	Containment Building
Cable Tray Mezz.	Intake Str Cubicles	Prim. Auxiliary Building
Process Cntrl Rm	U1/U2 CV3 Cable Tunnel	Safeguards Building
Relay Room	AE/DF Switchgear	Demin Water (1WT-TK-10)
Rod Drive/MG Rm	Fuel Building	CO2 Storage/PG Pump Rm
RWST (1QS-TK-1)	RW Valve Pit	D/G Fuel Oil

Figure 4-A  
PROTECTED AREA / SITE PERIMETER



4.1, 4.2 Table 4-1, Figure 4-A HAZARDS / ED JUDGEMENT - U1

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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.

**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 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 public health and safety by exposure to radiation

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

4.3 Flammable Gas	
Mode	Criterion / Indicator
	Refer to Tab 4.1 "Fire", Tab 4.2 "Explosion, or Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 4.1 "Fire", Tab 4.2 "Explosion", or Tab 1 "Fission Product Barrier Matrix"
All	<p>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).</p> <p>1. Report or detection of a flammable gas within, or contiguous to, a VITAL AREA in concentrations greater than explosive concentrations.</p>
All	<p>Release of flammable gas affecting the PROTECTED AREA deemed detrimental to the safe operation of the plant. (1 or 2)</p> <p>1. (a and b)</p> <p>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).</p> <p>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).</p> <p>2. Report by local, county or State officials for a potential evacuation of site personnel based on an offsite event.</p>

4.4 Toxic Gas	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
All	<p>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)</p> <p>1. Report or detection of a TOXIC GAS within, or contiguous to, a VITAL AREA or an area required for continued safe operation in concentrations that will be life threatening to plant personnel.</p> <p>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.</p>
All	<p>Release of TOXIC GAS affecting the PROTECTED AREA deemed detrimental to the safe operation of the plant. (1 or 2)</p> <p>1. (a and b)</p> <p>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).</p> <p>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).</p> <p>2. Report by local, county or State officials for a potential evacuation of site personnel based on an offsite event.</p> <p>Refer to AOP 1/2 44A.1 "Chlorine/toxic Gas Release", Attachment 3 for a list of chemicals stored, produced, or transported near BVPS and their toxicity limits.</p>

TABLE 4-2 HAS BEEN DELETED

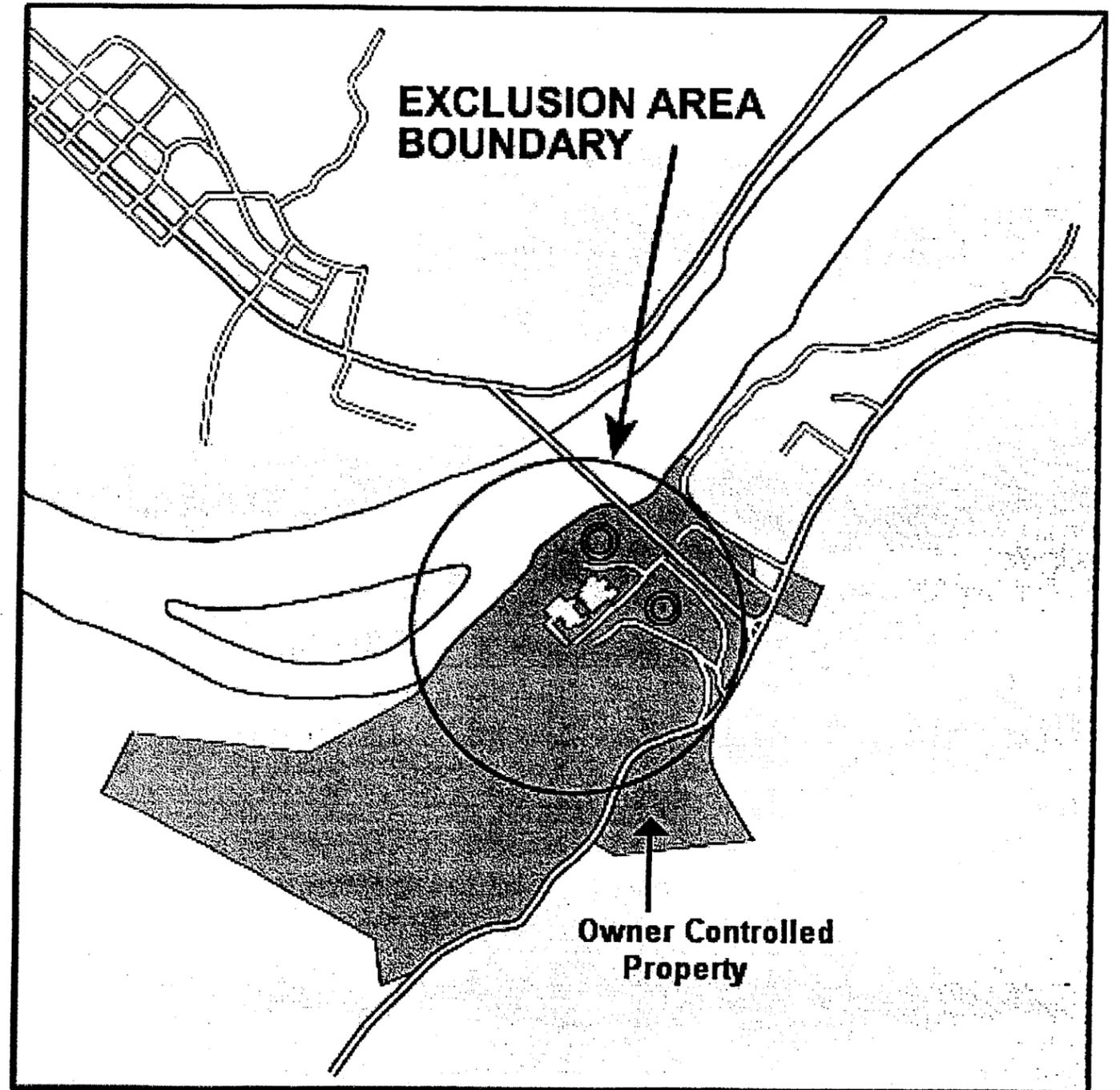
FIGURE 4-B HAS BEEN DELETED

HAZARDS / ED JUDGEMENT - U1

4.3.4.4

Figure 4-C

EXCLUSION AREA BOUNDARY



4.5 Control Room Evacuation		4.6 Security		4.7 Emergency Director Judgement	
Mode	Criterion / Indicator	Mode	Criterion / Indicator	Mode	Criterion / Indicator
	Refer to Tab 4.1 "FIRE"	All	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 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] a. Subcriticality b. Core cooling c. Heat Sink	All	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.)
All	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 2. Inability to transfer and operate any single component listed in Table 4-3 within 15 minutes of manning the shutdown panel  Also refer to Tab 4.1 "Fire"	All	Security event has or is occurring which results in actual or likely failures of plant functions needed to protect the public [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	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.)
All	Evacuation of the control room is required 1. AOP 1.33.1 "Control Room Inaccessibility" has been entered	All	Confirmed 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 3. PROTECTED AREA has been penetrated by a hostile armed force  Refer to Figure 4-A for a drawing of the PROTECTED 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.
	Not Applicable	All	Confirmed 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 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	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.

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 or is Occurring Within the PROTECTED AREA (Figure 4-A)
- b. HOSTAGE/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)

HAZARDS / ED JUDGEMENT - U1

4.5, 4.6, 4.7, Table 4-3, Table 4-4

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE AREA EMERGENCY:** See EAL 4.7

**BOMB:** A fused explosive device (See EXPLOSION)

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**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.

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

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

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**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.

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**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 expected result of normal operations, testing, or maintenance. Events 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.

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Figure 5-A  
Site Perimeter

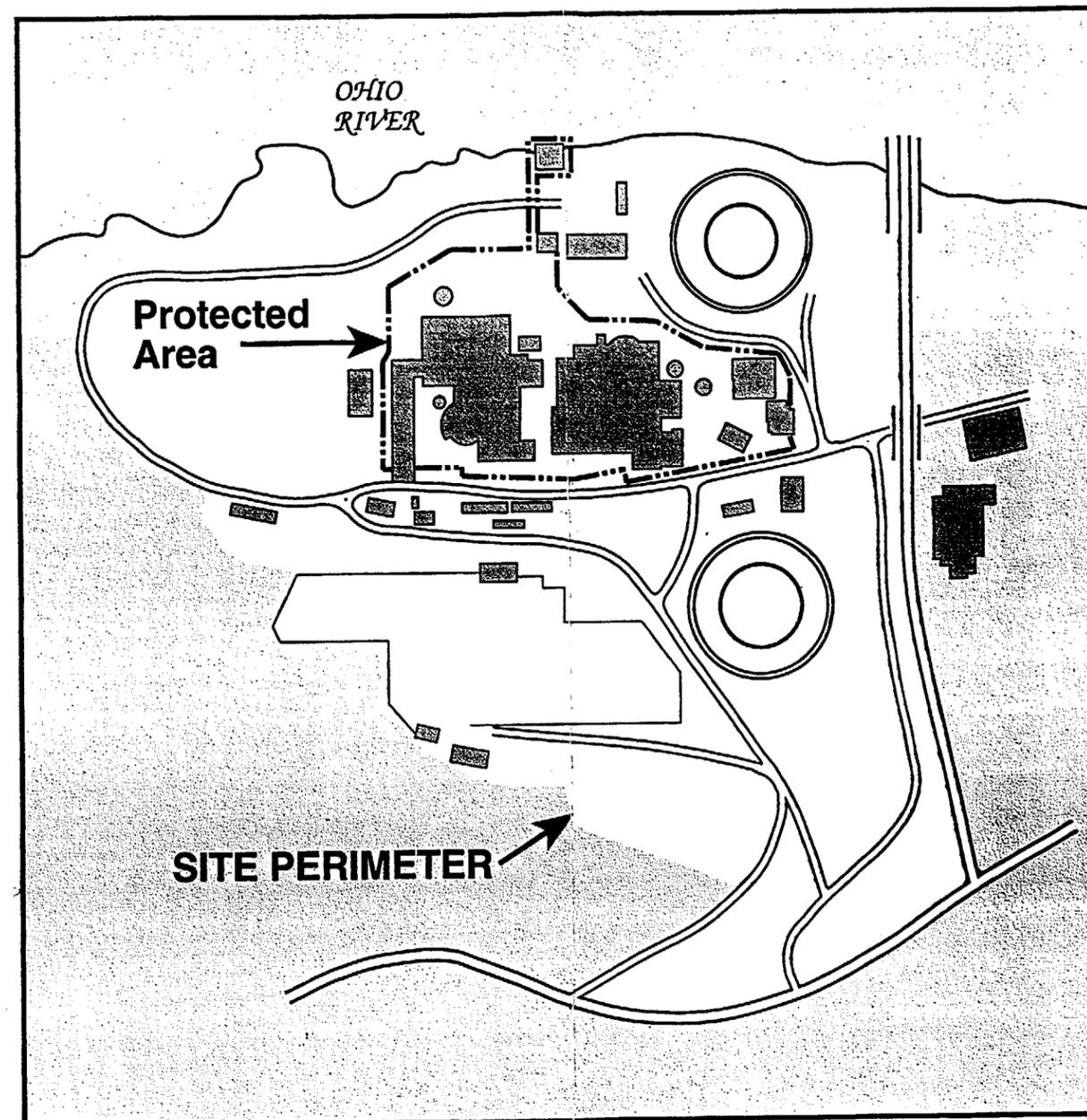


Table 5-1

Plant Structures Associated With  
Tornado/Hi Wind and Aircraft EALs

	5.1 Earthquake	
	Mode	Criterion / Indicator
GENERAL		Refer to Tab 1 "Fission Product Barrier Matrix"
		Refer to Tab 1 "Fission Product Barrier Matrix"
SITE AREA		Refer to Tab 1 "Fission Product Barrier Matrix"
		Refer to Tab 1 "Fission Product Barrier Matrix"
ALERT	All	<p>Earthquake greater than 0.06g acceleration occurs</p> <p>1. Analysis of Accelerograph Recording System data indicate ground acceleration &gt;0.06g in accordance with AOP 1/2.75.3 "Acts of Nature - Earthquake"</p>
	All	<p>Earthquake detected by site seismic instrumentation, &gt;0.01g acceleration [1 and 2]</p> <p>1. Ann. A11-59 "Seismic Accelerograph Operation" indicates initiation of the Accelerograph Recording System</p> <p>2. [a or b]</p> <p>a. Ground motion sensed by plant personnel</p> <p>b. Unit 2 reports seismic event detected on unit instrumentation</p>

	5.2 Tornado	
	Mode	Criterion / Indicator
GENERAL		Refer to Tab 1 "Fission Product Barrier Matrix"
		Refer to Tab 1 "Fission Product Barrier Matrix"
SITE AREA		Refer to Tab 1 "Fission Product Barrier Matrix"
		Refer to Tab 1 "Fission Product Barrier Matrix"
ALERT	All	<p>Tornado or high wind strikes any structure listed in Table 5-1 and results in structural damage [1 and 2]</p> <p>1. Tornado or high wind strikes any structure listed in Table 5-1</p> <p>2. [a or b]</p> <p>a. Confirmed report of any <b>VISIBLE DAMAGE</b> to specified structures</p> <p>b. Control room indications of degraded safety system or component response within listed structures due to event</p>
	All	<p>Tornado within the <b>SITE PERIMETER</b></p> <p>1. Plant personnel report a tornado has been sighted within the <b>SITE PERIMETER</b> (refer to Figure 5-A)</p>

DESTRUCTIVE PHENOMENA - U1

5.1, 5.2, FIGURE 5-A, TABLE 5-1

## DEFINITIONS/ACRONYMS

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**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.

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

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UNUSUAL EVENT ALERT SITE AREA GENERAL

5.3 Aircraft/Projectile Crash	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
ALL	<p>Aircraft or PROJECTILE impacts (strikes) any plant structure listed in Table 5-1 resulting in structural damage [1 and 2]</p> <ol style="list-style-type: none"> <li>Plant personnel report aircraft or PROJECTILE has impacted any structure listed in Table 5-1 on previous page</li> <li>[a or b]                             <ol style="list-style-type: none"> <li>Confirmed report of any VISIBLE DAMAGE to specified structures</li> <li>Control Room indications of degraded safety system or component response (within listed structures) due to event</li> </ol> </li> </ol>
ALL	<p>Aircraft crash or PROJECTILE impact within the SITE PERIMETER</p> <ol style="list-style-type: none"> <li>Plant personnel report aircraft crash or PROJECTILE impact within the SITE PERIMETER (refer to Figure 5-A on previous page)</li> </ol>

5.4 River Level HIGH	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
ALL	<p>River water level &gt; 705 Ft mean sea level [1 or 2]</p> <ol style="list-style-type: none"> <li>1LR-CW-101, if accessible, indicates &gt;705 mean sea level</li> <li>National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) reports Montgomery Lower Pool stage height &gt;52.48 Ft</li> </ol> <p>Note: Mean Sea Level = stage height + 652.52 Ft</p>
ALL	<p>River water level &gt;700 Ft Mean Sea Level [1 or 2]</p> <ol style="list-style-type: none"> <li>1LR-CW-101 indicates &gt; 700 Ft Mean Sea Level</li> <li>National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) reports Montgomery Lower Pool stage height &gt;47.48 Ft</li> </ol> <p>Note: Mean Sea Level = stage height + 652.52 Ft</p>

5.5 River Level LOW	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
ALL	<p>River water level &lt;648.6 Ft Mean Sea Level [1 or 2]</p> <ol style="list-style-type: none"> <li>1LR-CW-101 indicates &lt; 648.6 Ft Mean Sea Level</li> <li>National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) Reports Montgomery Lower Pool stage height &lt;-3.92 Ft</li> </ol> <p>Note: Mean Sea Level = stage height + 652.52 Ft</p>
	Not Applicable

5.6 Watercraft Crash	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
ALL	<p>Watercraft strikes primary intake structure and results in a reduction of Reactor Plant or Turbine Plant River Water Flow [1 and 2]</p> <ol style="list-style-type: none"> <li>Plant personnel report a watercraft has struck the primary intake structure</li> <li>[a or b]                             <ol style="list-style-type: none"> <li>RPRW flow reduction indicated by sustained pressure reduction to &lt;20 psig on IPI-RW-113A and/or 113B</li> <li>TPRW flow reduction indicated by sustained pressure reduction (Ann A6-118 "RAW Water Pump Disch Press Low" &lt;15 psig)</li> </ol> </li> </ol>

UNUSUAL EVENT ALERT SITE AREA GENERAL

5.3. 5.4. 5.5. 5.6 DESTRUCTIVE PHENOMENA - U1

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GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

6.1 Loss of Shutdown Systems	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 7.1 "Gaseous Effluents"
5 6	<p>Inability to maintain unit in cold shutdown [1 and 2]</p> <ol style="list-style-type: none"> <li>UNPLANNED Loss of RHR or CCR or RPRW</li> <li>[a or b or c] <ol style="list-style-type: none"> <li>Core exit thermocouples (CETC) (if available) indicate the temperature has increased &gt;10 F and has exceeded 200F.</li> <li>(w/ RHR in service) RHR inlet temperature has increased &gt;10 F and has exceeded 200 F.</li> <li>(w/o CETCs or RHR), loss has exceeded 30 minutes or there is evidence of boiling in the Rx vessel.</li> </ol> </li> </ol>
5 6	<p>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]</p> <ol style="list-style-type: none"> <li>UNPLANNED Loss of RHR or CCR or RPRW</li> <li>[a or b or c] <ol style="list-style-type: none"> <li>Core exit thermocouples (CETC) (if available) indicate the temperature has increased &gt;10F</li> <li>(W/ RHR in service) RHR inlet temperature has increased &gt;10 F</li> <li>(w/o CETCs or RHR), loss has exceeded 15 minutes</li> </ol> </li> </ol>

6.2 RCS Inventory - Shutdown	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
5 6	<p>Loss of water level in the reactor vessel that has or will uncover fuel in the reactor vessel. [1 and 2]</p> <ol style="list-style-type: none"> <li>[a or b] <ol style="list-style-type: none"> <li>Loss of RHR or CCR or RPRW</li> <li>Loss of RCS Inventory with inadequate makeup</li> </ol> </li> <li>[a and b] <ol style="list-style-type: none"> <li>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</li> <li>Other confirmed indications of fuel uncover</li> </ol> </li> </ol>
	Not Applicable
5 6	<p>Loss of Reactor Coolant System Inventory with inadequate make-up [1 and 2]</p> <ol style="list-style-type: none"> <li>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</li> <li>Ops personnel report inability to make-up RCS inventory</li> </ol>

6.3 Loss of AC (Shutdown)	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 7.1 "Gaseous Effluents"
5 6 De-Fuel	<p>UNPLANNED loss of offsite and onsite AC power for &gt;15 minutes]</p> <ol style="list-style-type: none"> <li>AE and DF 4KV emergency buses not energized from Unit 1 sources for &gt;15 minutes</li> </ol> <p>Also refer to Tab 6.1 "Loss of Shutdown Systems"</p>
5 6 De-Fuel	<p>UNPLANNED loss of all offsite power for &gt;15 minutes [1 and 2]</p> <ol style="list-style-type: none"> <li>1A and 1D 4KV normal buses de-energized for &gt;15 minutes</li> <li>Either diesel generator is supplying power to its respective emergency bus</li> </ol>

6.4 Loss of DC (Shutdown)	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 6.1 "Loss of Shutdown Systems"
5 6 De-Fuel	<p>UNPLANNED loss of the required train of DC power for &gt;15 minutes [1 or 2]</p> <ol style="list-style-type: none"> <li>Voltage &lt;110.4 VDC on DC buses 1-1 and 1-3 for &gt;15 minutes if train A is the priority train</li> <li>Voltage &lt;110.4 VDC on DC buses 1-2 and 1-4 for &gt;15 minutes if train B is the priority train</li> </ol>

EPPA-1a  
Att 1

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

SHUTDOWN SYSTEMS DEGRADATION - U1

6.1.6.2.6.3.6.4

Revision 1

## DEFINITIONS/ACRONYMS

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**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.

**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.

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**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

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**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 public health and safety by exposure to radiation

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

6.5 Fuel Handling	
Mode	Criterion / Indicator
	Refer to Tab 7.1 Gaseous Effluents"
	Refer to Tab 7.1 Gaseous Effluents"
ALL	<p>Major damage to irradiated fuel; or loss of water level that has or will uncover irradiated fuel outside the reactor vessel [1 and 2]</p> <ol style="list-style-type: none"> <li>VALID Hi-Hi alarm on RM-RM-203 or RM-RM-207 or RM-VS-103 A/B or RM-VS-104 A/B</li> <li>[a or b]               <ol style="list-style-type: none"> <li>Plant personnel report damage of irradiated fuel sufficient to rupture fuel rods</li> <li>Plant personnel report water level drop has or will exceed available makeup capacity such that irradiated fuel will be uncovered</li> </ol> </li> </ol> <p>Refer to Tab 6.2 for In-vessel Uncovery</p>
ALL	<p>UNPLANNED loss of water level in spent fuel pool or reactor cavity or transfer canal with fuel remaining covered [1 and 2 and 3]</p> <ol style="list-style-type: none"> <li>Plant personnel report water level drop in spent fuel pool or reactor cavity, or transfer canal</li> <li>VALID Hi-Hi alarm on RM-RM-203 or RM-RM-207</li> <li>Fuel remains covered with water</li> </ol>

6.6 Inadvertent Criticality	
Mode	Criterion / Indicator
	Refer to Tab 7.1 Gaseous Effluents"
	Refer to Tab 7.1 Gaseous Effluents"
3 4 5 6	<p>Inadvertent reactor criticality</p> <ol style="list-style-type: none"> <li>Nuclear instrumentation indicate unanticipated sustained positive startup rate</li> </ol>
	Not Applicable

INTENTIONALLY BLANK

SHUTDOWN SYSTEMS DEGRADATION - U1

6.5, 6.6

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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.

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**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.

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**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.

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

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**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 public health and safety by exposure to radiation

UNUSUAL EVENT ALERT SITE AREA GENERAL

7.1 Gaseous Effluents	
Mode	Criterion / Indicator
All	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 exceeds the values in Column 4 of Table 7-1 for >15 minutes, unless assessment within this time period confirms that the CRITERION is NOT exceeded 2. Field survey results indicate EAB dose >1000 mR β-γ for the actual or projected duration of the release 3. EPP dose assessment results indicate EAB dose >1000 mR TEDE or >5000 mR child thyroid CDE for the actual or projected duration of the release
All	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 assessment within this time period confirms that the CRITERION is NOT exceeded 2. Field survey results indicate EAB dose >100 mR β-γ for the actual or projected duration of the release 3. EPP dose assessment results indicate EAB dose >100 mR TEDE or >500 mR child thyroid CDE for the actual or projected duration of the release
All	Any UNPLANNED release of gaseous radioactivity that exceeds 200 times the radiological effluent Technical Specifications/Offsite Dose Calculation Manual for 15 minutes [1 or 2 or 3] 1. A VALID gas effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless assessment within this time period confirms that the CRITERION is NOT exceeded 2. Field survey results indicate >10 mR/hr β-γ at the EAB for >15 minutes 3. EPP dose assessment results indicate EAB dose >10 mR TEDE for the duration of the release
All	Any UNPLANNED release of gaseous radioactivity that exceeds 2 times the radiological effluent Technical Specifications/Offsite Dose Calculation Manual 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 assessment within this time period confirms that the CRITERION is NOT exceeded 2. Field survey results indicate >0.1 mR/hr β-γ at the EAB for >60 minutes 3. EPP dose assessment results indicate EAB dose >0.1 mR TEDE for the duration of the release

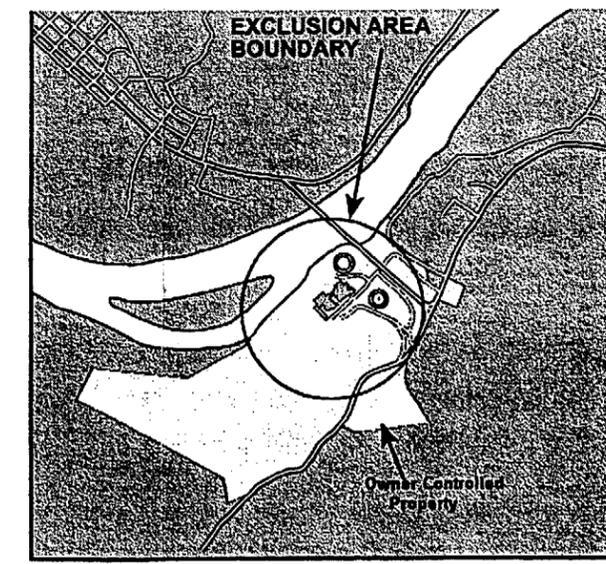
7.2 Liquid Effluents	
Mode	Criterion / Indicator
	Not Applicable
	Not Applicable
All	Any UNPLANNED release of liquid radioactivity that exceeds 200 times the radiological effluent Technical Specifications/Offsite Dose Calculation Manual for 15 minutes [1 or 2] 1. A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for >15 minutes, unless assessment within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 200 times the radiological effluent Technical Specification/Offsite Dose Calculation Manual value for an unmonitored release of liquid radioactivity >15 minutes in duration
All	Any UNPLANNED release of liquid radioactivity to the environment that exceeds 2 times the radiological effluent Technical Specifications/Offsite Dose Calculation Manual 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 assessment within this time period confirms that the CRITERION is NOT exceeded 2. Sample results exceed 2 times the radiological effluent technical specification value for an unmonitored release of liquid radioactivity >60 minutes in duration

TABLE 7-1  
EFFLUENT RADIATION MONITOR EALS

NOTE: The values below, if exceeded, indicate the need to perform the specified assessment. If the assessment can not be completed within 15 minutes (60 minutes for UE), the declaration shall be made based on the VALID reading.

	Column 1	Column 2	Column 3	Column 4
	UE	ALERT	SITE	GENERAL
IF A RWDA IS APPLICABLE	2x HHSP set by RWDA	200x HHSP set by RWDA	n/a	n/a
IF A RWDA IS NOT AVAILABLE				
<b>Vent Vent</b>				
VS101B	6.00E+3	6.00E+5	--	--
VS109 Ch 5	2.94E+3	2.94E+5	6.01E+5	--
VS109 Ch 7	--	--	6.69E+1	6.69E+2
VS109 Ch 9	--	--	--	1.32E+1
VS111 LR	--	--	7.32E+3	7.32E+4
<b>SLCRS</b>				
VS107 B	1.28E+4	--	--	--
VS110 Ch 5	6.76E+3	6.76E+5	9.08E+5	--
VS110 Ch 7	--	--	7.98E+1	7.98E+2
VS110 Ch 9	--	--	--	2.28E+1
VS112 HR	--	--	--	1.53E+1
VS112 LR	--	--	1.19E+4	1.19E+5
<b>Gas Waste</b>				
GW109 Ch 7	4.80E+3	4.80E+5	7.90E+5	--
GW109 Ch 9	--	--	1.83E+4	1.83E+5
GW110 HR	--	--	1.59E+4	1.59E+5
GW110 LR	--	--	--	--
<b>Liquid Monitors</b>				
LW-104	6.78E+5	--	--	--
LW-116	--	--	--	--
RW-100	3.60E+4	--	--	--
<b>RELEASE DURATION, Minutes</b>	60	15	15	15
<b>ASSESSMENT METHOD</b>	HPM-RP6.12 EPP/IP-2.7	EFP/IP-2.7 EPP/IP-2.6.x	EPP/IP-2.6.x	EPP/IP-2.6.x

Figure 7-A  
EXCLUSION AREA  
BOUNDARY



7.1, 7.2, Table 7-1, Fig. 7-A RADIOLOGICAL / FUEL HANDLING - UI

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE AREA EMERGENCY:** See EAL 4.7

**BOMB:** A fused explosive device (See EXPLOSION)

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**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

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UNUSUAL EVENT ALERT SITE AREA GENERAL

7.3 Radiation Levels	
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"
All	<p><b>UNPLANNED increases in radiation levels within the facility that impedes safe operations or establishment or maintenance of cold shutdown [1 or 2]</b></p> <ol style="list-style-type: none"> <li><b>VALID</b> area radiation monitor readings or survey results exceed 15 mR/hr in the Control Room or PAF (on U2 DRMS) for &gt;15 minutes</li> <li>[a and b] <ol style="list-style-type: none"> <li><b>VALID</b> area radiation monitor readings or survey results exceed values listed in Table 7-2</li> <li>Access restrictions impede operation of systems necessary for safe operation or the ability to establish or maintain cold shutdown <i>See Note Below</i></li> </ol> </li> </ol>
All	<p><b>UNPLANNED increase in radiation levels within the facility</b></p> <ol style="list-style-type: none"> <li><b>VALID</b> area radiation monitor readings increase by a factor of 1000 over normal levels for &gt;15 minutes</li> </ol> <p><i>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).</i></p>

7.4 Fuel Handling	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 7.1 "Gaseous Effluents"
All	<p><b>Major damage to irradiated fuel; or loss of water level that has or will uncover irradiated fuel outside the reactor vessel [1 and 2]</b></p> <ol style="list-style-type: none"> <li><b>VALID</b> Hi-Hi alarm on RM-RM-203 or RM-RM-207 or RM-VS-103 A/B or RM-VS-104 A/B</li> <li>[a or b] <ol style="list-style-type: none"> <li>Plant personnel report damage of irradiated fuel sufficient to rupture fuel rods</li> <li>Plant personnel report water level drop has or will exceed available makeup capacity such that irradiated fuel will be uncovered</li> </ol> </li> </ol> <p><i>Refer to Tab 6 "Shutdown Systems" for In-vessel Uncovery</i></p>
ALL	<p><b>UNPLANNED loss of water level in spent fuel pool or reactor cavity or transfer canal with fuel remaining covered [1 and 2 and 3]</b></p> <ol style="list-style-type: none"> <li>Plant personnel report water level drop in spent fuel pool or reactor cavity, or transfer canal</li> <li><b>VALID</b> Hi-Hi alarm on RM-RM-203 or RM-RM-207 or</li> <li>Fuel remains covered with water</li> </ol>

Table 7-2  
Areas Associated With EAL 7.3

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 IRS-157, IRS-159	Survey Results	>100 mR/hr general area
735' West Cable Vault Valves, 1IA-90, 1HY-101, 1HY-102, 1HY-103, 1HY-104	Survey Results	>100 mR/hr general area
735' Safeguards (IQSS, 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

7.3, 7.4, Table 7-2 RADIOLOGICAL / FUEL HANDLING - U1

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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.

**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 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 public health and safety by exposure to radiation

**RECOGNITION AND CLASSIFICATION**  
**OF EMERGENCY CONDITIONS**

**CONTROLLED  
BVPS UNIT 2**

**EFFECTIVE INDEX**

Issue 8 Rev.	0	OSC Approved	3-12-87
	1	OSC Approved	8-13-87
	2	OSC Approved	10-8-87
	3	OSC Approved	2-9-88
	4	OSC Approved	2-9-89
	5	Non-Safety Related	3-15-89
	6	OSC Approved	4-18-89
	7	OSC Approved	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

**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, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
- 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 205 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

**C. RESPONSIBILITY**

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

**D. ACTION LEVELS/PRECAUTIONS/GUIDANCE**

**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 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.

3.2 Common Plant Conditions

- 3.2.1 IF an event occurs such that both reactor units are affected, e.g., tornado, toxic gas offsite, etc., THEN the senior Nuclear Shift Supervisor shall make the appropriate classification and assume the role of Emergency Director.
- 3.2.2 IF the common plant condition results in a higher emergency classification at one reactor unit, THEN the Nuclear Shift Supervisor 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 IF an event occurs, and a lower or higher plant operating mode is reached before the classification can be made, THEN 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, **THEN** the event is **NOT** 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, **THEN** 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 satisfied.

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 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.

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.

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 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.
    - 2.1.1 CSF status tree ORANGE PATH or RED PATH conditions
    - 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  $\mu\text{Ci/gm}$
    - 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. IF other EALs are applicable, THEN 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 occurrence 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.

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 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.
  - 4.3.2 IF none of the EALs for an initiating condition are met, THEN re-perform 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.
- 4.4 IF the specified INDICATORS are observed, THEN:
  - 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:**

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 IF the assessment concludes that the CRITERION is met, THEN the classification shall be made. Proceed to Step 5.0
- 4.6 IF the assessment concludes that the CRITERION is not met, THEN re-perform 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 occurrence 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 IF an UNUSUAL EVENT is declared, THEN proceed to EPP/I-2
- 5.2 IF an ALERT is declared, THEN proceed to EPP/I-3
- 5.3 IF a SITE AREA EMERGENCY is declared, THEN proceed to EPP/I-4
- 5.4 IF a GENERAL EMERGENCY is declared, THEN 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 IF the abnormal condition is reportable to the NRC pursuant to 10 CFR 50.72 and NPDAP 5.1, THEN perform the following:

6.1.1 Complete the NRC Event Notification Form, Attachment 4 to EPP/IP-1.1.

6.1.2 Notify First Energy Communications of the event per NPDAP 5.3 and provide the information on the NRC Event Notification Form.

6.2 IF directed by station management, THEN 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. ATTACHMENTS**

1.0 Tabs for Classification of Emergency Conditions

**H. FIGURES**

1.0 Figures are identified on the EAL indices

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.*

- 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.
- Compare the blocks checked to the CRITERIA below and make the appropriate declaration.

**CRITERIA**

**GENERAL EMERGENCY**  
LOSS of any Two (2) barriers and Potential loss of third barrier.  
OR  
LOSS of all three (3) barriers.

**WHITE AREA EMERGENCY**  
LOSS or Potential LOSS of any two (2) barriers.  
OR  
LOSS of one (1) barrier and a Potential LOSS of a second barrier.

**LERT**  
Any LOSS or Potential LOSS of Fuel Clad barrier.  
OR  
Any LOSS or Potential LOSS of RCS barrier.

**UNUSUAL EVENT**  
LOSS or Potential Loss of CNMT barrier.  
See also EAL's:  
2.4 Fuel Clad Degradation (RCS Specific Activity >LCO)  
2.5 RCS Unidentified or Pressure Boundry Leakage > 10 gpm.  
2.6 RCS Identified Leakage > 25 gpm.

**1.3 CNMT Barrier**

1.3.1 Critical Safety Function Status

LOSS	Potential LOSS
Not Applicable	CNMT CSF RED PATH <u>OR</u> Actions of FR-C.1 (RED PATH) are INEFFECTIVE

1.3.2 Containment Pressure / Hydrogen Conc.

LOSS	Potential LOSS
Rapid unexplained drop in CNMT pressure following initial rise <u>OR</u> CNMT pressure or sump level response NOT consistent with LOCA conditions	CNMT pressure >45 PSIG <u>OR</u> CNMT H2 rises >4% <u>OR</u> CNMT pressure >8 PSIG with less than one full train of CNMT spray

1.3.3 Containment Isolation Status

LOSS	Potential LOSS
CNMT isolation is incomplete creating a direct release path to the environment when required	Not Applicable

1.3.4 Containment Bypass

LOSS	Potential LOSS
RUPTURED S/G is also FAULTED Outside of CNMT <u>OR</u> 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	Unexplained VALID rise in reading on area or ventilation monitors in contiguous areas with known LOCA <u>OR</u> HIGH Alarm on 2SWS-RQ100A,B,C, or D <u>AND</u> affected HX is <u>NOT</u> isolated

1.3.5 Significant Radioactivity in Containment

LOSS	Potential LOSS																		
Not Applicable  <i>* Due to streaming thru airlock</i>	VALID reading exceeds:  <table border="1"> <tr> <td colspan="3">2RMR-RQ206</td> </tr> <tr> <td>Time After S/D, hrs</td> <td>2RMR-RQ207</td> <td>2RMR-RQ202*</td> </tr> <tr> <td>0-0.5</td> <td>2.0E4</td> <td>7.0E4</td> </tr> <tr> <td>0.5-4</td> <td>7.0E3</td> <td>2.3E4</td> </tr> <tr> <td>4-12</td> <td>2.9E3</td> <td>9.0E3</td> </tr> <tr> <td>12-24</td> <td>1.4E3</td> <td>3.8E3</td> </tr> </table>	2RMR-RQ206			Time After S/D, hrs	2RMR-RQ207	2RMR-RQ202*	0-0.5	2.0E4	7.0E4	0.5-4	7.0E3	2.3E4	4-12	2.9E3	9.0E3	12-24	1.4E3	3.8E3
2RMR-RQ206																			
Time After S/D, hrs	2RMR-RQ207	2RMR-RQ202*																	
0-0.5	2.0E4	7.0E4																	
0.5-4	7.0E3	2.3E4																	
4-12	2.9E3	9.0E3																	
12-24	1.4E3	3.8E3																	

1.3.6 Emergency Director Judgement  
Any condition that, in the judgement of the NSS/ED, indicates loss or potential loss of the Containment barrier comparable to the indicators listed above.

LOSS  Potential LOSS

**1.2 RCS Barrier**

1.2.1 Critical Safety Function Status

LOSS	Potential LOSS
Not Applicable	RCS Integrity CSF RED PATH <u>OR</u> Heat Sink CSF RED PATH

1.2.2 Reactor Vessel Water Level

LOSS	Potential LOSS
RVLIS Full Range <40% (no RCPs running)	Not Applicable

1.2.3 RCS Leak Rate

LOSS	Potential LOSS
RCS leak results in loss of RCS subcooling	Unisolable RCS leak that requires an additional charging pump be started with letdown isolated. <u>OR</u> RCS leak causes safety injection actuation indicated by direct entry into EOP E-1 required by EOP E-0

1.2.4 Primary to Secondary Leak

LOSS	Potential LOSS
SGTR that results in a safety injection actuation <u>OR</u> Entry into E-3 required by EOPs	Not Applicable

1.2.5 Containment Radiation Monitors

LOSS	Potential LOSS																						
VALID reading exceeds:  <table border="1"> <tr> <td colspan="3">2RMR-RQ201</td> </tr> <tr> <td>Time After S/D, hrs</td> <td>2RMR-RQ201</td> <td>2RMR-RQ202*</td> </tr> <tr> <td>0-0.5</td> <td>130</td> <td>1.0</td> </tr> <tr> <td>0.5-4</td> <td>80</td> <td>0.5</td> </tr> <tr> <td>4-12</td> <td>40</td> <td>0.3</td> </tr> <tr> <td>12-24</td> <td>25</td> <td>N/A</td> </tr> </table>	2RMR-RQ201			Time After S/D, hrs	2RMR-RQ201	2RMR-RQ202*	0-0.5	130	1.0	0.5-4	80	0.5	4-12	40	0.3	12-24	25	N/A	Not Applicable  <i>* Due to streaming thru airlock</i>  <table border="1"> <tr> <td colspan="2">2RMR-RQ201 = chn 1026</td> </tr> <tr> <td colspan="2">2RMR-RQ202 = chn 3020</td> </tr> </table>	2RMR-RQ201 = chn 1026		2RMR-RQ202 = chn 3020	
2RMR-RQ201																							
Time After S/D, hrs	2RMR-RQ201	2RMR-RQ202*																					
0-0.5	130	1.0																					
0.5-4	80	0.5																					
4-12	40	0.3																					
12-24	25	N/A																					
2RMR-RQ201 = chn 1026																							
2RMR-RQ202 = chn 3020																							

1.2.6 Emergency Director Judgement

LOSS	Potential LOSS
Any condition that, in the judgement of the NSS/ED, indicates loss or potential loss of the RCS barrier comparable to the indicators listed above.	

LOSS  Potential LOSS

**1.1 Fuel Clad Barrier**

1.1.1 Critical Safety Function Status

LOSS	Potential LOSS
Core Cooling CSF RED PATH	Core Cooling CSF ORANGE PATH <u>OR</u> Heat Sink CSF RED PATH

1.1.2 Three Max CETCs

LOSS	Potential LOSS
Greater than 1200F	Greater than 729F

1.1.3 Reactor Vessel Water Level

LOSS	Potential LOSS
Not Applicable	RVLIS Full Range <40% (no RCPs running)

1.1.4 Primary Coolant Activity Level

LOSS	Potential LOSS
RCS activity >300µCi/gm dose equivalent Iodine-131	Not Applicable

1.1.5 Letdown Monitor Indication

LOSS	Potential LOSS
2CHS-RQ101 A/B [3051] VALID reading greater than 300µCi/ml with letdown unisolated	Not Applicable

1.1.6 Containment Radiation Monitors

LOSS	Potential LOSS																								
VALID reading exceeds:  <table border="1"> <tr> <td colspan="3">2RMR-RQ206</td> </tr> <tr> <td>Time After S/D, hrs</td> <td>2RMR-RQ207</td> <td>2RMR-RQ202*</td> </tr> <tr> <td>0-0.5</td> <td>340</td> <td>1100</td> </tr> <tr> <td>0.5-4</td> <td>190</td> <td>560</td> </tr> <tr> <td>4-12</td> <td>120</td> <td>280</td> </tr> <tr> <td>12-24</td> <td>60</td> <td>130</td> </tr> </table>	2RMR-RQ206			Time After S/D, hrs	2RMR-RQ207	2RMR-RQ202*	0-0.5	340	1100	0.5-4	190	560	4-12	120	280	12-24	60	130	Not Applicable  <i>* Due to streaming thru airlock</i>  <table border="1"> <tr> <td colspan="2">2RMR-RQ202 = chn 3020</td> </tr> <tr> <td colspan="2">2RMR-RQ206 = chn 1029</td> </tr> <tr> <td colspan="2">2RMR-RQ207 = chn 1030</td> </tr> </table>	2RMR-RQ202 = chn 3020		2RMR-RQ206 = chn 1029		2RMR-RQ207 = chn 1030	
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Time After S/D, hrs	2RMR-RQ207	2RMR-RQ202*																							
0-0.5	340	1100																							
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4-12	120	280																							
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2RMR-RQ202 = chn 3020																									
2RMR-RQ206 = chn 1029																									
2RMR-RQ207 = chn 1030																									

1.1.7 Emergency Director Judgement  
Any condition that, in the judgement of the NSS/ED, indicates loss or potential loss of the Fuel Clad barrier comparable to the indicators listed above.

LOSS  Potential LOSS

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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.

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**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 within 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

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**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.

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**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

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**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

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

2.1 Loss of Instrumentation	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix" and Tab 7 "Radiological Effluents"
1 2 3 4	Inability to monitor a SIGNIFICANT TRANSIENT in progress [1 and 2 and 3]  1. Loss of most (>75%) annunciators or indications 2. SIGNIFICANT TRANSIENT in progress 3. Inability to directly monitor any of the following CSFs:  Subcriticality                      Vessel Integrity Core Cooling                        Containment Heat Sink
1 2 3 4	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. NSS judgement that additional personnel (beyond normal shift complement) are required to monitor the safe operation of the unit 3. [a or b] a. SIGNIFICANT TRANSIENT in progress b. Loss of SPDS
1 2 3 4	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. NSS judgement that additional personnel (beyond normal shift complement) are required to monitor the safe operation of the unit

2.2 Loss of Function	
Mode	Criterion / Indicator
1 2 3 4	Inability to cool the core [1 or 2] 1. Actions of FR-C.1 (RED PATH) are INEFFECTIVE 2. [a and b] a. Three max core exit thermocouples >1200 F; or three max core exit thermocouples >729 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
1 2 3 4	Loss of function needed to achieve or 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 F; or three max core exit thermocouples >729 F with NO RCPs running and RVLIS full range level <40%  Also Refer to Tab 2.3 "Failure of Reactor Protection" and Tab 1 "Fission Product Barrier Matrix"
1 2 3 4	Inability to achieve cold shutdown when required by Technical Specifications [1 and 2 and 3]  1. Loss of decay heat removal capability (RHS, CCP or SWS) 2. Inability to remove heat via the condenser 3. Shutdown to mode 5 required by T/S
ALL	UNPLANNED Loss of communications [1 or 2] 1. 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) 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 / Indicator
1 2	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 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. Three max core exit thermocouples >1200 F; or three max core exit thermocouples >729 F with NO RCPs running and RVLIS full range level <40%
1 2	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. Ops personnel report FR-S.1 has been entered and 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	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
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	Refer to Tab 1 "Fission Product Barrier Matrix"
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 2CHS-RQ101A/B [3051] reactor coolant letdown monitor 2. Radiochemistry analysis exceeds Technical Specification 3.4.8

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

SYSTEM DEGRADATION - U2

2.1, 2.2, 2.3, 2.4

## DEFINITIONS/ACRONYMS

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UNUSUAL EVENT    ALERT    SITE AREA    GENERAL

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

2.6 RCS Identified Leakage	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
1 2 3 4 5*	<p>Identified RCS leakage &gt;25 GPM</p> <p>1. Identified RCS leakage (as defined by Technical Specifications) &gt;25 GPM as indicated below [a or b]</p> <p>a. OST 2.6.2 or 2.6.2A Results</p> <p>b. UNPLANNED level rise in excess of 25 GPM total into PRT, 2DGS-TK-21, and 2DGS-TK-22</p> <p><i>*Applies to Mode 5 if RCS Pressurized</i></p>

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

2.8 Safety Limit	
Mode	Criterion / Indicator
	Not Applicable
	Not Applicable
	Not Applicable
1 2 3 4 5	<p>Safety Limit Has Been Exceeded [1 or 2]</p> <p>1. The combination of thermal power, RCS temperature, and RCS pressure is greater than the safety limit as determined from BVPS Technical Specifications Figure 2.1-1 "Reactor Core Safety Limit"</p> <p>2. RCS/pressurizer pressure exceeds safety limit (&gt;2735 psig)</p>

UNUSUAL EVENT    ALERT    SITE AREA    GENERAL

SYSTEM DEGRADATION - U2    2.5. 2.6. 2.7. 2.8

## DEFINITIONS/ACRONYMS

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**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

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**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.

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**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

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

2.9 Turbine Failure	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
1 2 3	<p>Turbine failure generated missiles cause penetration of a missile shield wall of any area containing safety related equipment</p> <p>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</p>
1 2 3	<p>Turbine failure results in casing penetration</p> <p>1. 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</p>

2.10 Steam/Feed Line Break	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
1 2 3 4	<p>UNPLANNED rapid depressurization of the Main Steam System resulting in a rapid RCS cooldown and Safety Injection actuation [1 and 2]</p> <p>1. Ops personnel report rapid depressurization of Main Steam System that causes SLI (&lt;500 psig)</p> <p>2. Ops personnel report Safety Injection has actuated</p>

**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

SYSTEM DEGRADATION - U2

2.9, 2.10, Table 2-1

## DEFINITIONS/ACRONYMS

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**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 within 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

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

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UNUSUAL EVENT ALERT SITE AREA GENERAL

UNUSUAL EVENT ALERT SITE AREA GENERAL

3.1 Loss of AC (Power Ops)	
Mode	Criterion / Indicator
1 2 3 4	<p>Prolonged loss of offsite <u>and</u> onsite AC power [1 and 2]</p> <ol style="list-style-type: none"> <li>AE <u>and</u> DF 4KV emergency buses <u>NOT</u> energized from Unit 2 sources for &gt;15 minutes</li> <li>[a or b or c] <ol style="list-style-type: none"> <li>Ops personnel report CSF status tree RED PATH or ORANGE PATH terminus exists for core cooling</li> <li>Restoration of either AE or DF 4KV emergency bus is NOT likely from any source within 4 hours of loss</li> <li>Three max core exit thermocouples &gt;1200 F or three max core exit thermocouples &gt;729 F with no RCPs running <u>and</u> RVLIS full range &lt;40%</li> </ol> </li> </ol>
1 2 3 4	<p>Loss of offsite <u>and</u> onsite AC power for &gt;15 minutes</p> <ol style="list-style-type: none"> <li>AE <u>and</u> DF 4KV emergency buses <u>NOT</u> energized from Unit 2 sources for &gt;15 minutes</li> </ol>
1 2 3 4	<p>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]</p> <ol style="list-style-type: none"> <li>Either AE or DF 4KV emergency bus is de-energized for &gt;15 minutes</li> <li>The energized AE or DF 4KV emergency bus has only one source of power [a or b] <ol style="list-style-type: none"> <li>Emergency diesel generator</li> <li>2A or 2D 4KV normal bus</li> </ol> </li> </ol>
1 2 3 4	<p>Loss of offsite power for &gt;15 minutes [1 and 2]</p> <ol style="list-style-type: none"> <li>2A <u>and</u> 2D 4KV normal buses de-energized for &gt;15 minutes</li> <li>Each diesel generator is supplying power to its respective emergency bus</li> </ol>

3.2 Loss of AC (Shutdown)	
Mode	Criterion / Indicator
	<p>Refer to Tab 6 "Shutdown System Degradation"</p>
	<p>Refer to Tab 6 "Shutdown System Degradation"</p>
5 6 De-fuel	<p>UNPLANNED loss of offsite <u>and</u> onsite AC power for &gt;15 minutes</p> <ol style="list-style-type: none"> <li>AE <u>and</u> DF 4KV emergency buses <u>NOT</u> energized from Unit 2 sources for &gt;15 minutes</li> </ol> <p>Also Refer to Tab 6 "Shutdown System Degradation"</p>
5 6 De-fuel	<p>UNPLANNED loss of offsite power for &gt;15 minutes [1 and 2]</p> <ol style="list-style-type: none"> <li>2A <u>and</u> 2D 4KV normal buses de-energized for &gt;15 minutes</li> <li>Either diesel generator is supplying power to its respective emergency bus</li> </ol>

3.3 Loss of DC Power	
Mode	Criterion / Indicator
	<p>Refer to Tab 1 "Fission Product Barrier Matrix" and Tab 2.2 "Loss of Function", and Tab 6.1 "Loss of Shutdown Systems"</p>
1 2 3 4	<p>Loss of all vital DC power for &gt;15 minutes</p> <ol style="list-style-type: none"> <li>Voltage &lt;110.4 VDC on DC buses 2-1 <u>and</u> 2-2 <u>and</u> 2-3 <u>and</u> 2-4 for &gt;15 minutes</li> </ol> <p>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"</p>
	<p>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"</p>
1 2 3 4	<p>UNPLANNED loss of one train of DC power for &gt;15 minutes [1 or 2]</p> <ol style="list-style-type: none"> <li>Voltage &lt;110.4 VDC on DC Buses 2-1 <u>and</u> 2-3 for &gt;15 minutes</li> <li>Voltage &lt;110.4 VDC on DC buses 2-2 <u>and</u> 2-4 for &gt;15 minutes</li> </ol> <p>Refer to Tab 6.4 "Loss of DC (Shutdown)" for modes 5, 6, and defueled</p>

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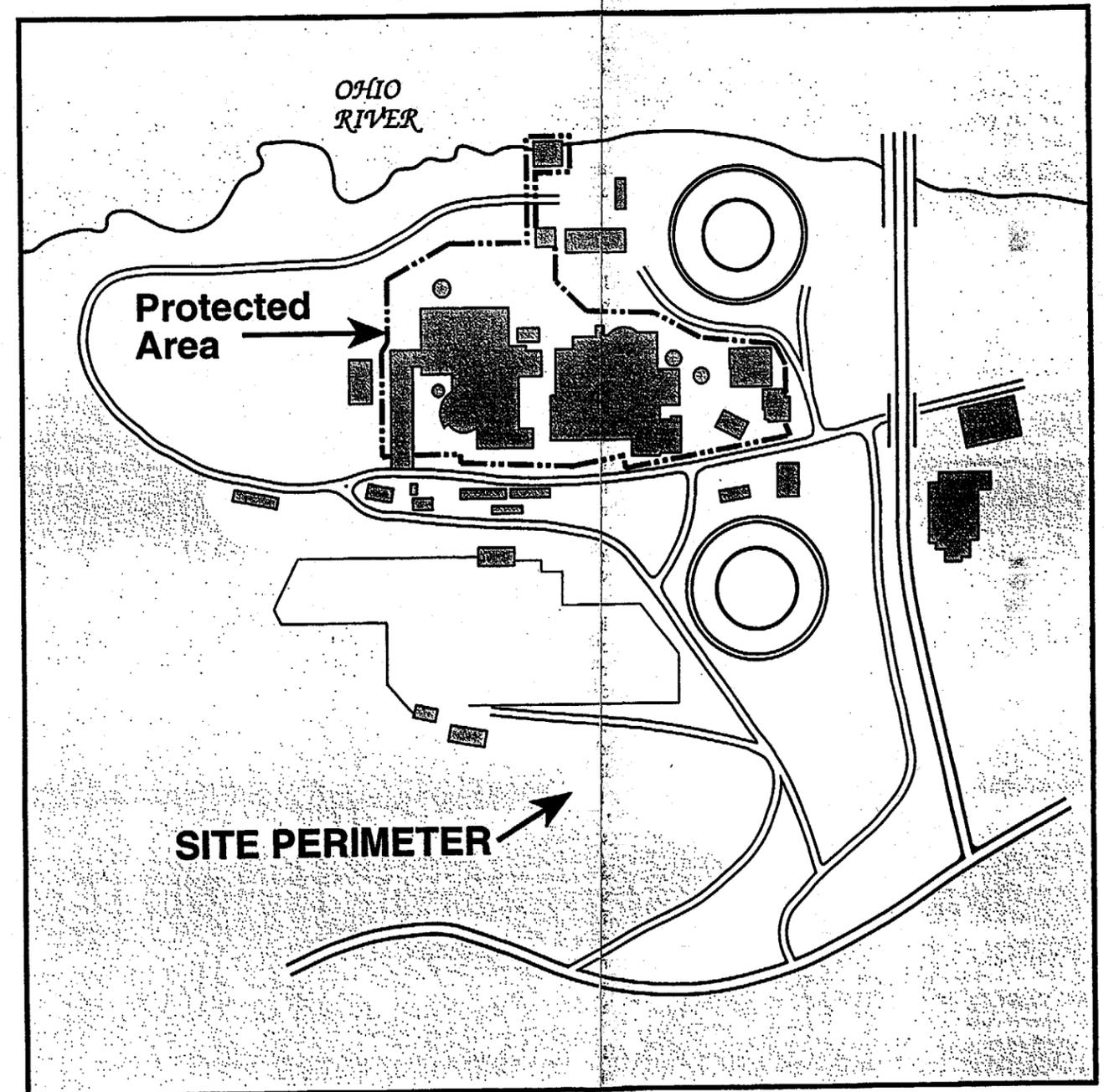
4.1 Fire	
Mode	Criterion / Indicator
1 2 3 4	<p><b>FIRE</b> in the Instrument and Relay Room (CB-1), Cable Spreading Room (CB-2), Control Room (CB-3), West Communications Room (CB-6), or Cable Tunnel (CB-1) resulting in an evacuation of the control room per 2.56C.4 "Alternate Safe Shutdown" and loss of any required equipment results in an uncontrolled RCS Heatup [1 and 2 and 3]</p> <ol style="list-style-type: none"> <li>2.56C.4 "Alternate Safe Shutdown" entered</li> <li>Ops personnel report inability to operate any of the following equipment required by 2.56C.4 "Alternate Safe Shutdown"</li> </ol> <p>2CHS-P21A 2SWS-P21A 2FWE-P23A &amp; 2FWE-P22 EGS-EG2-1 Black DG Alternate S/D Panel 2SAS-C21A 2CCP-P21A 2RHS-P21A</p> <ol style="list-style-type: none"> <li>Uncontrolled RCS heatup lasting longer than 15 minutes</li> </ol>
1 2 3 4	<p><b>FIRE</b> 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"</p> <ol style="list-style-type: none"> <li>2.56C.4 "Alternate Safe Shutdown" entered</li> </ol>
All	<p><b>FIRE</b> in any of the areas listed in Table 4-1 that is affecting safety related equipment [1 and 2]</p> <ol style="list-style-type: none"> <li><b>FIRE</b> in any of the listed areas in Table 4-1</li> <li>[a or b] <ol style="list-style-type: none"> <li>Ops personnel report <b>VISIBLE DAMAGE</b> to permanent structure or equipment in listed area due to <b>FIRE</b></li> <li>Control room indication of degraded system or component (within listed areas) response due to <b>FIRE</b></li> </ol> </li> </ol>
All	<p><b>FIRE</b> 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</p>

4.2 Explosions	
Mode	Criterion / Indicator
	<p>Refer to Tab 4.1 "Fire" or Tab 1 "Fission Product Barrier Matrix"</p>
	<p>Refer to Tab 4.1 "Fire" or Tab 1 "Fission Product Barrier Matrix"</p>
All	<p><b>EXPLOSION</b> in any of the areas listed in Table 4-1 that is affecting safety related equipment [1 and 2]</p> <ol style="list-style-type: none"> <li><b>EXPLOSION</b> in any of the listed areas in Table 4-1</li> <li>[a or b] <ol style="list-style-type: none"> <li>Ops personnel report <b>VISIBLE DAMAGE</b> to permanent structure or equipment in listed area</li> <li>Control room indication of degraded system or component (within listed areas) response due to <b>EXPLOSION</b></li> </ol> </li> </ol> <p>Refer to Tab 4.6 "Security"</p>
All	<p><b>UNPLANNED EXPLOSION</b> in or adjacent to those areas listed in Table 4-1</p> <ol style="list-style-type: none"> <li><b>UNPLANNED EXPLOSION</b> in or adjacent to any of the listed areas in Table 4-1</li> </ol> <p>Refer to Tab 4.1, "Fire" or Tab 1 "Fission Product Barrier Matrix"</p> <p>Refer to Tab 4.6 "Security"</p>

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

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

Figure 4-A  
PROTECTED AREA/SITE PERIMETER



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**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

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

4.3 Flammable Gas	
Mode	Criterion / Indicator
	Refer to Tab 4.1 "Fire", Tab 4.2 "Explosion", or Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 4.1 "Fire", Tab 4.2 "Explosion", or Tab 1 "Fission Product Barrier Matrix"
All	<p>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).</p> <p>1. Report or detection of a flammable gas within, or contiguous to, a VITAL AREA in concentrations greater than explosive concentrations.</p>
All	<p>Release of flammable gas affecting the PROTECTED AREA deemed detrimental to the safe operation of the plant. (1 or 2)</p> <p>1. (a and b)</p> <p>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).</p> <p>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).</p> <p>2. Report by local, county or State officials for a potential evacuation of site personnel based on an offsite event.</p>

4.4 Toxic Gas	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
All	<p>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)</p> <p>1. Report or detection of a TOXIC GAS within, or contiguous to, a VITAL AREA or an area required for continued safe operation in concentrations that will be life threatening to plant personnel.</p> <p>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.</p>
All	<p>Release of TOXIC GAS affecting the PROTECTED AREA deemed detrimental to the safe operation of the plant. (1 or 2)</p> <p>1. (a and b)</p> <p>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).</p> <p>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).</p> <p>2. Report by local, county or State officials for a potential evacuation of site personnel based on an offsite event.</p> <p>Refer to AOP 1/2 44A.1 "Chlorine/toxic Gas Release", Attachment 3 for a list of chemicals stored, produced, or transported near BVPS and their toxicity limits.</p>

TABLE 4.2 HAS BEEN DELETED

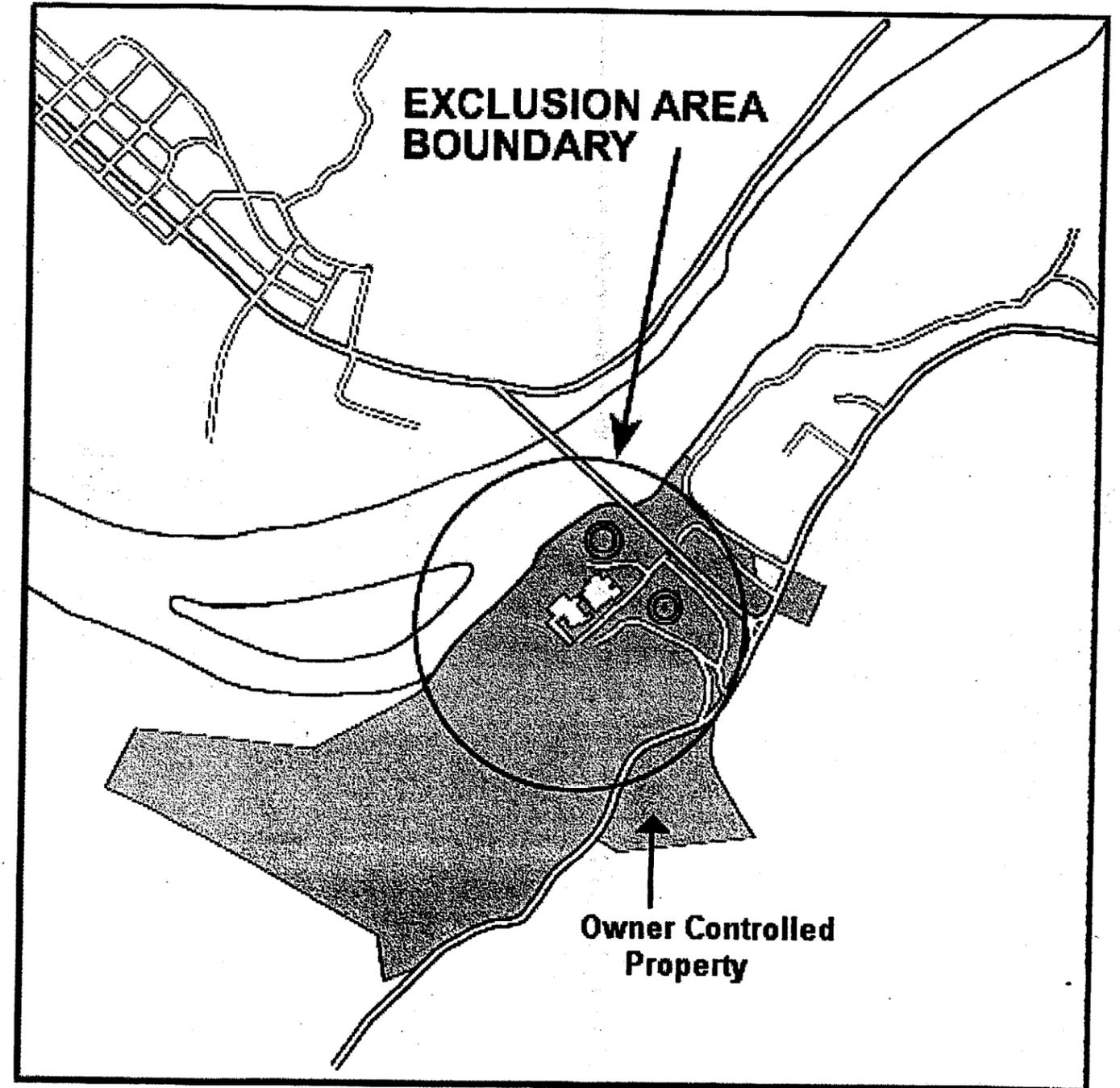
FIGURE 4-B HAS BEEN DELETED

HAZARDS / ED JUDGEMENT - U2 MENT - U2

4.3. 4.4

**Figure 4-C**

**EXCLUSION AREA BOUNDARY**



GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

4.5 Control Room Evacuation	
Mode	Criterion / Indicator
	Refer to Tab 4.1 "FIRE"
All	Evacuation of the control room has been initiated <u>and</u> control of all necessary equipment has not been established within 15 minutes of manning the Shutdown Panel [1 and 2]  1. AOP 2.33.1A "Control Room Inaccessibility" has been entered  2. Inability to transfer and operate any single component listed in Table 4-3 within 15 minutes of manning the shutdown panel  <i>Also refer to Tab 4.1 "Fire"</i>
All	Evacuation of the control room is required  1. AOP 2.33.1A "Control Room Inaccessibility" has been entered
	Not Applicable

4.6 Security	
Mode	Criterion / Indicator
All	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 <u>or</u> the remote shutdown panel  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]:  a. Subcriticality b. Core cooling c. Heat Sink
All	Security event has <u>or</u> is occurring which results in actual or likely failures of plant functions needed to protect the public [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
All	Confirmed Security event which indicates an actual <u>or</u> 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  3. PROTECTED AREA has been penetrated by a hostile armed force  <i>Refer to Figure 4-A for a drawing of the PROTECTED AREA</i>
All	Confirmed 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  2. Security Shift Supervisor reports one or more of the events listed in Table 4-4  <i>Refer to Figure 4-A for a drawing of the PROTECTED AREA</i>

4.7 Emergency Director Judgement	
Mode	Criterion / Indicator
All	Events are in process <u>or</u> 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.)
All	Events are in process <u>or</u> have occurred which involve actual <u>or</u> 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.)
All	Events are in process <u>or</u> have occurred which involve an actual <u>or</u> 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.
All	Unusual events are in process <u>or</u> have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response <u>or</u> monitoring are expected unless further degradation of safety systems occurs.

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

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

- a. SABOTAGE/INTRUSION has or is Occurring Within the PROTECTED AREA (Figure 4-A)
- b. HOSTAGE/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)

HAZARDS / ED JUDGEMENT - U2

4.5, 4.6, 4.7, Table 4-3, Table 4-4

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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.

**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

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

5.1 Earthquake	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
All	<p>Earthquake greater than 0.06g acceleration occurs [1 and 2]</p> <ol style="list-style-type: none"> <li>A seismic event has occurred as indicated by Ann A10-5H "Init of Seismic Exceed Preset and/or Spectral Accelerations"</li> <li>[a and b]                             <ol style="list-style-type: none"> <li>One or more alarm lamps and horn energized on the Seismic Warning panel [2ERS-ANN-1]</li> <li>Review of the printout on 2ERS-RSA-1 Response Spectrum Analyzer reveals an acceleration &gt;0.06g has occurred (see 2OM-45.4F "Seismic Instrumentation Central Control Cabinet [2ERS-CCC-1] Running")</li> </ol> </li> </ol> <p>Also refer to AOP 1/2.75.3 "Acts of Nature-Earthquake"</p>
All	<p>Earthquake detected by site seismic instrumentation &gt;0.01g acceleration [1 and 2]</p> <ol style="list-style-type: none"> <li>Ann A10-5H "Init of Seismic Exceed Preset and/or Spectral Accelerations" indicates initiation of the Accelerograph Recording System</li> <li>[a or b]                             <ol style="list-style-type: none"> <li>Ground motion sensed by plant personnel</li> <li>Unit 1 reports seismic event detected on unit instrumentation</li> </ol> </li> </ol>

5.2 Tornado	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
All	<p>Tornado or high wind strikes any structure listed in Table 5-1 and results in structural damage [1 and 2]</p> <ol style="list-style-type: none"> <li>Tornado or high wind strikes any structure listed in Table 5-1</li> <li>[a or b]                             <ol style="list-style-type: none"> <li>Confirmed report of any <b>VISIBLE DAMAGE</b> to specified structures</li> <li>Control room indications of degraded safety system or component response within listed structures due to event</li> </ol> </li> </ol>
All	<p>Tornado within the <b>SITE PERIMETER</b>.</p> <ol style="list-style-type: none"> <li>Plant personnel report a tornado has been sighted within the <b>SITE PERIMETER</b> (refer to Figure 5-A)</li> </ol>

Figure 5-A  
Site Perimeter

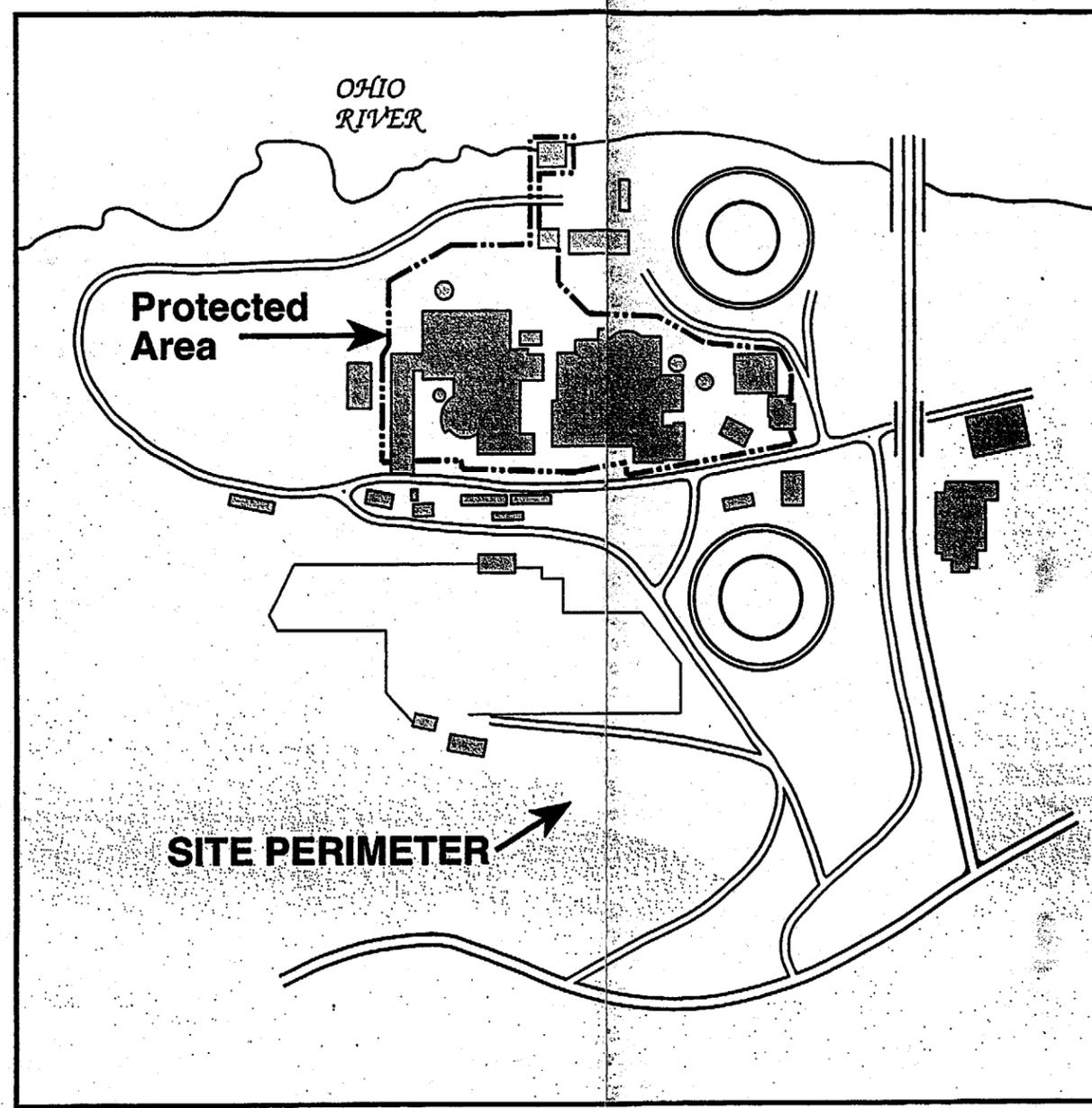


Table 5-1  
Plant Structures Associated With  
Tornado/Hi Wind and Aircraft EALs

- |  |                                  |
|--|----------------------------------|
| Containment Building                   | Control Bldg                     |
| Safeguards Building                    | Cable Vault and Rod Control Bldg |
| Primary Aux. Building                  | Main Steam Valve Room            |
| Fuel Handling Building                 | Main Intake Structure            |
| RWST (2QSS-TK21)                       | Demin. Water Sto. (2FWE-TK-210)  |
| 24 ton CO2 unit                        | Diesel Generator Building        |
| Service Building (incl. FW Reg Vlv Rm) |                                  |

DESTRUCTIVE PHENOMENA - U2

5.1, 5.2, FIGURE 5-A, TABLE 5-1

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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.

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**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 within 15 minutes (unless otherwise noted) of sufficient indications being available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

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

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**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 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.

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**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 public health and safety by exposure to radiation

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

5.3 Aircraft/Projectile Crash	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
ALL	<p>Aircraft or PROJECTILE impacts (strikes) any plant structure listed in Table 5-1 resulting in structural damage [1 and 2]</p> <ol style="list-style-type: none"> <li>Plant personnel report aircraft or PROJECTILE has impacted any structure listed in Table 5-1 on previous page</li> <li>[a or b] <ol style="list-style-type: none"> <li>Confirmed report of any <b>VISIBLE DAMAGE</b> to specified structures</li> <li>Control Room indications of degraded safety system or component response (within listed structures) due to event</li> </ol> </li> </ol>
ALL	<p>Aircraft crash or PROJECTILE impact within the <b>SITE PERIMETER</b></p> <ol style="list-style-type: none"> <li>Plant personnel report aircraft crash or PROJECTILE impact within the <b>SITE PERIMETER</b> (refer to Figure 5-A on previous page)</li> </ol>

5.4 River Level HIGH	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
ALL	<p>River water level &gt; 705 Ft mean sea level [1 or 2]</p> <ol style="list-style-type: none"> <li>ILR-CW-101, if accessible, indicates &gt;705 mean sea level</li> <li>National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) reports Montgomery Lower Pool stage height &gt;52.48 Ft</li> </ol> <p>Note: Mean Sea Level = stage height + 652.52 Ft</p>
ALL	<p>River water level &gt;700 Ft Mean Sea Level [1 or 2]</p> <ol style="list-style-type: none"> <li>ILR-CW-101 indicates &gt; 700 Ft Mean Sea Level</li> <li>National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) reports Montgomery Lower Pool stage height &gt;47.48 Ft</li> </ol> <p>Note: Mean Sea Level = stage height + 652.52 Ft</p>

5.5 River Level LOW	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
ALL	<p>River water level &lt;648.6 Ft Mean Sea Level [1 or 2]</p> <ol style="list-style-type: none"> <li>ILR-CW-101 indicates &lt;648.6 Ft Mean Sea Level</li> <li>National Weather Bureau (412-644-2882) or Montgomery Lock (724-643-8400) Reports Montgomery Lower Pool stage height &lt; -3.92 Ft</li> </ol> <p>Note: Mean Sea Level = stage height + 652.52 Ft</p>
	Not Applicable

5.6 Watercraft Crash	
Mode	Criterion / Indicator
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
	Refer to Tab 1 "Fission Product Barrier Matrix"
ALL	<p>Watercraft strikes primary intake structure and results in a reduction of Service Water flow [1 and 2]</p> <ol style="list-style-type: none"> <li>Plant personnel report a watercraft has struck the primary intake structure</li> <li>SWS flow reduction indicated by sustained pressure reduction to &lt;30 psig on 2SWS-PI-113A and/or 113B</li> </ol> <p>Refer to AOP 2.30.1 "Loss of Service Water"</p>

EFP7-1b  
Alt 1

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

DESTRUCTIVE PHENOMENA - U2

5.3. 5.4. 5.5. 5.6

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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.

**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.

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**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.

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**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 an 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

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

6.1 Loss of Shutdown Systems	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 7.1 "Gaseous Effluents"
5 6	<p>Inability to maintain unit in cold shutdown [1 and 2]</p> <ol style="list-style-type: none"> <li>UNPLANNED Loss of RHS or CCP or SWS</li> <li>[a or b or c]               <ol style="list-style-type: none"> <li>Core exit thermocouples (CETC) (if available) indicate the temperature has increased &gt;10 F and has exceeded 200F.</li> <li>(w/RHS in service) RHS inlet temperature has increased &gt;10 F and has exceeded 200 F.</li> <li>(w/o CETCs or RHS), loss has exceeded 30 minutes or there is evidence of boiling in the Rx vessel.</li> </ol> </li> </ol>
5 6	<p>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]</p> <ol style="list-style-type: none"> <li>UNPLANNED Loss of RHS or CCP or SWS</li> <li>[a or b or c]               <ol style="list-style-type: none"> <li>Core exit thermocouples (CETC) (if available) indicate the temperature has increased &gt;10 F</li> <li>(W/RHS in service) RHS inlet temperature has increased &gt;10 F</li> <li>(w/o CETCs or RHS), loss has exceeded 15 minutes</li> </ol> </li> </ol>

6.2 RCS Inventory - Shutdown	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
5 6	<p>Loss of water level in the reactor vessel that has or will uncover fuel in the reactor vessel [1 and 2]</p> <ol style="list-style-type: none"> <li>[a or b]               <ol style="list-style-type: none"> <li>Loss of RHS or CCP or SWS</li> <li>Loss of RCS Inventory with inadequate makeup</li> </ol> </li> <li>[a and b]               <ol style="list-style-type: none"> <li>Ops personnel report 2RCS-LI-102, LR-102 RCS level instrumentation (if available) in the Control Room indicates a level drop to 0 inches</li> <li>Other confirmed indications of fuel uncover</li> </ol> </li> </ol>
	Not Applicable
5 6	<p>Loss of Reactor Coolant System Inventory with inadequate make-up [1 and 2]</p> <ol style="list-style-type: none"> <li>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</li> <li>Ops personnel report inability to make-up RCS inventory</li> </ol>

6.3 Loss of AC (Shutdown)	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 7.1 "Gaseous Effluents"
5 6 De-Fuel	<p>UNPLANNED loss of offsite and onsite AC power for &gt;15 minutes</p> <ol style="list-style-type: none"> <li>AE and DF 4KV emergency buses not energized from Unit 2 sources for &gt;15 minutes</li> </ol> <p>Also refer to Tab 6.1 "Loss of Shutdown Systems"</p>
5 6 De-Fuel	<p>UNPLANNED loss of all offsite power for &gt;15 minutes [1 and 2]</p> <ol style="list-style-type: none"> <li>2A and 2D 4KV normal buses de-energized for &gt;15 minutes</li> <li>Either diesel generator is supplying power to its respective emergency bus</li> </ol>

6.4 Loss of DC (Shutdown)	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 6.1 "Loss of Shutdown Systems"
5 6 De-Fuel	<p>UNPLANNED loss of the required train of DC power for &gt;15 minutes [1 or 2]</p> <ol style="list-style-type: none"> <li>Voltage &lt;110.4 VDC on DC buses 2-1 and 2-3 for &gt;15 minutes if train A is the priority train</li> <li>Voltage &lt;110.4 VDC on DC buses 2-2 and 2-4 for &gt;15 minutes if train B is the priority train</li> </ol>

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

SHUTDOWN SYSTEMS DEGRADATION - U2  
 6.1, 6.2, 6.3, 6.4

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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.

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**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.

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**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.

**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.

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**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.

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**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 public health and safety by exposure to radiation

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

6.5 Fuel Handling	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 7.1 "Gaseous Effluents"
ALL	<p>Major damage to irradiated fuel; or loss of water level that has or will uncover irradiated fuel outside the reactor vessel [1 and 2]</p> <ol style="list-style-type: none"> <li>VALID HIGH alarm on 2RMF-RQ202 [1031], 2HVR-RQ104A/B [1024, 1028], 2RMF-RQ301A/B [1032, 2032], or 2RMR-RQ203 [1025]</li> <li>[a or b] <ol style="list-style-type: none"> <li>Plant personnel report damage of irradiated fuel sufficient to rupture fuel rods</li> <li>Plant personnel report water level drop has or will exceed available makeup capacity such that irradiated fuel will be uncovered</li> </ol> </li> </ol> <p>Refer to Tab 6.2 for In-vessel Uncovery</p>
ALL	<p>UNPLANNED loss of water level in spent fuel pool or reactor cavity or transfer canal with fuel remaining covered [1 and 2 and 3]</p> <ol style="list-style-type: none"> <li>Plant personnel report water level drop in spent fuel pool or reactor cavity, or transfer canal</li> <li>VALID HIGH alarm on 2RMR-RQ203 [1025] or 2RMF-RQ-202 [1031]</li> <li>Fuel remains covered with water</li> </ol>

6.6 Inadvertent Criticality	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 7.1 "Gaseous Effluents"
3 4 5 6	<p>Inadvertent reactor criticality</p> <ol style="list-style-type: none"> <li>Nuclear instrumentation indicate unanticipated sustained positive startup rate</li> </ol>
	Not Applicable

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SHUTDOWN SYSTEMS DEGRADATION - U2

6.5, 6.6

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE AREA EMERGENCY:** See EAL 4.7

**BOMB:** A fused explosive device (See EXPLOSION)

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

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UNUSUAL EVENT ALERT SITE AREA GENERAL

7.1 Gaseous Effluents	
Mode	Criterion / Indicator
All	<p>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]</p> <ol style="list-style-type: none"> <li>A VALID gas effluent rad monitor reading exceeds the values in Column 4 of Table 7-1 for &gt;15 minutes, unless assessment within this time period confirms that the CRITERION is NOT exceeded</li> <li>Field survey results indicate EAB dose &gt;1000 mR β-γ for the actual or projected duration of the release</li> <li>EPP dose assessment results indicate EAB dose &gt;1000 mR TEDE or &gt;5000 mR child thyroid CDE for the actual or projected duration of the release</li> </ol>
All	<p>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]</p> <ol style="list-style-type: none"> <li>A VALID gas effluent rad monitor reading exceeds the values in Column 3 of Table 7-1 for &gt;15 minutes, unless assessment within this time period confirms that the CRITERION is NOT exceeded</li> <li>Field survey results indicate EAB dose &gt;100 mR β-γ for the actual or projected duration of the release</li> <li>EPP dose assessment results indicate EAB dose &gt;100 mR TEDE or &gt;500 mR child thyroid CDE for the actual or projected duration of the release</li> </ol>
All	<p>Any UNPLANNED release of gaseous radioactivity that exceeds 200 times the radiological effluent Technical Specifications/Offsite Dose Calculation Manual for 15 minutes [1 or 2 or 3]</p> <ol style="list-style-type: none"> <li>A VALID gas effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for &gt;15 minutes, unless assessment within this time period confirms that the CRITERION is NOT exceeded</li> <li>Field survey results indicate &gt;10 mR/hr β-γ at the EAB for &gt;15 minutes</li> <li>EPP dose assessment results indicate EAB dose &gt;10 mR TEDE for the duration of the release</li> </ol>
All	<p>Any UNPLANNED release of gaseous radioactivity that exceeds 2 times the radiological effluent Technical Specifications/Offsite Dose Calculation Manual for 60 minutes [1 or 2 or 3]</p> <ol style="list-style-type: none"> <li>A VALID gas effluent rad monitor reading exceeds the values in Column 1 of Table 7-1 for &gt;60 minutes, unless assessment within this time period confirms that the CRITERION is NOT exceeded</li> <li>Field survey results indicate &gt;0.1 mR/hr β-γ at the EAB for &gt;60 minutes</li> <li>EPP dose assessment results indicate EAB dose &gt;0.1 mR TEDE for the duration of the release</li> </ol>

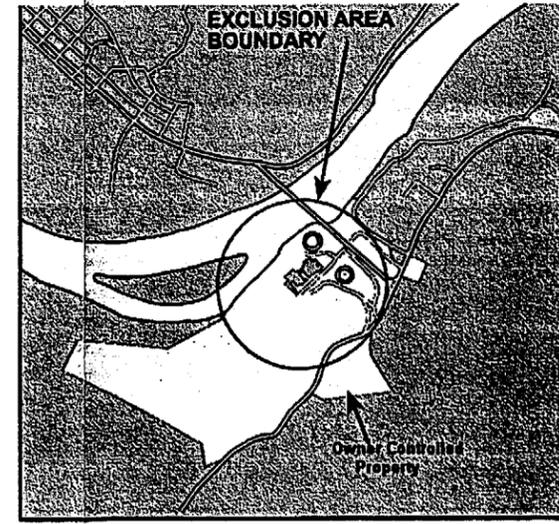
7.2 Liquid Effluents	
Mode	Criterion / Indicator
	Not Applicable
	Not Applicable
All	<p>Any UNPLANNED release of liquid radioactivity that exceeds 200 times the radiological effluent Technical Specifications/Offsite Dose Calculation Manual for 15 minutes [1 or 2]</p> <ol style="list-style-type: none"> <li>A VALID liquid effluent rad monitor reading exceeds the values in Column 2 of Table 7-1 for &gt;15 minutes, unless assessment within this time period confirms that the CRITERION is NOT exceeded</li> <li>Sample results exceed 200 times the radiological effluent Technical Specification/Offsite Dose Calculation Manual value for an unmonitored release of liquid radioactivity &gt;15 minutes in duration</li> </ol>
	<p>Any UNPLANNED release of liquid radioactivity to the environment that exceeds 2 times the radiological effluent Technical Specifications/Offsite Dose Calculation Manual for 60 minutes [1 or 2]</p> <ol style="list-style-type: none"> <li>A VALID liquid effluent rad monitor reading exceeds the values in Column 1 of Table 7-1 for &gt;60 minutes, unless assessment within this time period confirms that the CRITERION is NOT exceeded</li> <li>Sample results exceed 2 times the radiological effluent technical specification value for an unmonitored release of liquid radioactivity &gt;60 minutes in duration</li> </ol>

TABLE 7-1  
EFFLUENT RADIATION MONITOR EALS

NOTE: The values below, if exceeded, indicate the need to perform the specified assessment. If the assessment can not be completed within 15 minutes (60 minutes for UE), the declaration shall be made based on the VALID reading.

	Column 1	Column 2	Column 3	Column 4
	UE	ALERT	SITE	GENERAL
IF A RWDA IS APPLICABLE	2x HHSP set by RWDA	200x HHSP set by RWDA	n/a	n/a
IF A RWDA IS NOT APPLICABLE	(μCi/cc unless otherwise noted)			
<b>Vent Vent/Cond Polishing</b>				
2HVS-RQ-101B [2039]	6.02E-4	6.02E-2	1.72E-1	--
2HVL-RQ-112B [2013]	3.22E-3	3.22E-1	--	--
<b>SLCRS</b>				
2HVS*RQ-109 LR [2040]	2.12E-4	2.12E-2	--	--
2HVS*RQ-109 MR [3040]	--	--	3.88E-2	3.88E-1
2HVS*RQ-109 HR [4040]	--	--	--	3.94E-1
2HVS*RQ-109 Eff [5040] μCi/sec	5.90E+3	5.90E+5	1.04E+6	1.04E+7
<b>Decon/WG Vaults</b>				
2RMQ-RQ-301B [2033]	4.48E-2	--	--	--
2RMQ-RQ-303B [2037]	6.30E-3	--	--	--
<b>Main Steam Reliefs</b>				
2MSS*RQ101ABC [1005/3005/5005]	--	--	1.77E-1	1.77E+0
2MSS*RQ101 Effluent μCi/sec [2005/4005/6005]	--	--	5.10E+5	5.10E+6
<b>Liquid Monitors</b>				
2SGC-RQ-100 [1065]	1.38E-3	--	--	--
2SWS-RQ-101 [1068]	5.98E-5	8.56E-3	--	--
2SWS-RQ-102 [1067]	5.98E-5	8.56E-3	--	--
<b>RELEASE DURATION, Minutes</b>	60	15	15	15
<b>ASSESSMENT METHOD</b>	HPM-RP6.12 EPP/IP-2.7	EPP/IP-2.7 EPP/IP-2.6.x	EPP/IP-2.6.x	EPP/IP-2.6.x

Figure 7-A  
EXCLUSION AREA  
BOUNDARY



7.1, 7.2, Table 7-1, Fig. 7-A RADIOLOGICAL / FUEL HANDLING - U2

## DEFINITIONS/ACRONYMS

**ALERT, UNUSUAL EVENT, GENERAL EMERGENCY, SITE 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.

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**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.

**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.

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**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 public health and safety by exposure to radiation

GENERAL

SITE AREA

ALERT

UNUSUAL EVENT

7.3 Radiation Levels	
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"
All	<p>UNPLANNED increases in radiation levels within the facility that impedes safe operations or establishment or maintenance of cold shutdown [1 or 2]</p> <ol style="list-style-type: none"> <li>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 &gt;15 minutes</li> <li>[a and b] <ol style="list-style-type: none"> <li>VALID area radiation monitor readings or survey results exceed values listed in Table 7-2</li> <li>Access restrictions impede operation of systems necessary for safe operation or the ability to establish or maintain cold shutdown</li> </ol> <p>See Note Below</p> </li> </ol>
All	<p>UNPLANNED increase in radiation levels within the facility</p> <ol style="list-style-type: none"> <li>VALID area radiation monitor readings increase by a factor of 1000 over normal levels for &gt;15 minutes</li> </ol> <p>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).</p>

7.4 Fuel Handling	
Mode	Criterion / Indicator
	Refer to Tab 7.1 "Gaseous Effluents"
	Refer to Tab 7.1 "Gaseous Effluents"
All	<p>Major damage to irradiated fuel; or loss of water level that has or will uncover irradiated fuel outside the reactor vessel [1 and 2]</p> <ol style="list-style-type: none"> <li>VALID HIGH alarm on 2RMR-RQ203 [1025] or 2RMF-RQ202 [1031] or 2RMF-RQ301 A/B [1032/2032] or 2HVR-RQ104A/B [1024/1028]</li> <li>[a or b] <ol style="list-style-type: none"> <li>Plant personnel report damage of irradiated fuel sufficient to rupture fuel rods</li> <li>Plant personnel report water level drop has or will exceed available makeup capacity such that irradiated fuel will be uncovered</li> </ol> <p>Refer to Tab 6 "Shutdown Systems" for In-vessel Uncovery</p> </li> </ol>
All	<p>UNPLANNED loss of water level in spent fuel pool or reactor cavity or transfer canal with fuel remaining covered [1 and 2 and 3]</p> <ol style="list-style-type: none"> <li>Plant personnel report water level drop in spent fuel pool or reactor cavity, or transfer canal</li> <li>VALID HIGH alarm on 2RMR-RQ203 [1025] or 2RMF-RQ202 [1031]</li> <li>Fuel remains covered with water</li> </ol>

Table 7-2  
Areas Associated With EAL 7.3

LOCATION	INDICATOR	READING
730' Service Bldg (H2 Analyzers)	Survey Results	>100 mR/hr general area
PASS Cubicle (735' PAB)	RMP-FQ-204 [1050]	>100 mR/hr general area
Chem Sample Panel (718' PAB)	RMP-FQ-210 [1059]	>100 mR/hr general area
737' Safeguards (H2 Control System Operations)	RMP-FQ-205A,B [1049]	>100 mR/hr general area
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

## DEFINITIONS/ACRONYMS

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# Beaver Valley Power Station

Unit 1/2

EPP/I-2

Unusual Event

Document Owner  
Manager, Emergency Preparedness

Revision Number	17
Level Of Use	In-Field Reference
Safety Related Procedure	Yes

**CONTROLLED  
BVPS UNIT 3**

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Unusual Event

Revision:

Page Number:

17

i of ii

## EFFECTIVE INDEX

Issue 8 Rev.	0	OSC Approved	3-12-87
	1	OSC Approved	8-13-87
	2	OSC Approved	6-20-88
	3	OSC Approved	9-22-88
	4	Non-Safety Revisions	2-23-89
	5	Non-Safety Revisions	1-12-90
Issue 9 Rev.	0	Non-Intent Revision	10-9-90
	1	Non-Intent Revision	10-11-91
	2	Non-Intent Revision	5-15-92
	3	Non-Intent Revision	12-29-92
	4	OSC Approved	1-27-93
Rev.	5	Non-Intent Revision	1-1-94
Rev.	6	Non-Intent Revision	10-14-94
Rev.	7	Non-Intent Revision	5-26-95
Rev.	8	Non-Intent Revision	10-31-95
Rev.	9	Non-Intent Revision	12-8-95
Rev.	10	Non-Intent Revision	10-23-96
Rev.	11	Non-Intent Revision	1-29-97
Rev.	12	Non-Intent Revision	6-17-97
Rev.	13	OSC Approved	10-15-97
Rev.	14	OSC Approved	4-1-98
Rev.	15	Non-Intent Revision	4-12-00
Rev.	16	Non-Intent Revision	8-8-01
Rev.	17	Non-Intent Revision	12-12-01

# Beaver Valley Power Station

Procedure Number:

**EPP/I-2**

Title:

**Unusual Event**

Unit:

**1/2**

Level Of Use:

**In-Field Reference**

Revision:

**17**

Page Number:

**ii of ii**

## TABLE OF CONTENTS

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

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Unusual Event

Revision:

17

Page Number:

1 of 14

## A. PURPOSE

This procedure describes the actions to be taken once an Unusual Event has been declared at the Beaver Valley Power Station. Actions to be completed by the Control Room are outlined in Section E.1.0 while TSC actions are outlined in Section E.2.0.

## B. REFERENCES

- 1.0 Beaver Valley Power Station Emergency Preparedness Plan and Implementing Procedures.
- 2.0 Beaver Valley Power Station Operating Manuals.
- 3.0 Beaver Valley Power Station Health Physics Manual.
- 4.0 Title 10, Code of Federal Regulations Part 50, Appendix E.
- 5.0 NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants".
- 6.0 Condition Report #971737.  
Condition Report #993020.  
Condition Report #00-2202  
Condition Report #00-4309  
Condition Report #01-0693  
Condition Report #01-4468

## C. RESPONSIBILITY

The Emergency Director (Nuclear Shift Supervisor of the affected Unit, until properly relieved by a designated alternate) has the responsibility and authority for implementation of the actions prescribed in this instruction. If the Nuclear Shift Supervisor of the affected Unit is unavailable, the Nuclear Shift Supervisor of the unaffected Unit **SHALL** assume the role of the Emergency Director until relieved. Or, if the occurrence is common to both Units (e.g., Security compromise, acts of nature), the Senior Nuclear Shift Supervisor (per 1/2-OM-48.1.A.III.J) **SHALL** assume the role of Emergency Director.

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Unusual Event

Revision:

Page Number:

17

2 of 14

## D. ACTION LEVELS/PRECAUTIONS

### 1.0 Action Levels

1.1 An Unusual Event has been declared based on the occurrence of off-normal events which could indicate a potential degradation of the level of safety of the plant per EPP/I-1.

### 2.0 Precautions

2.1 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.

2.2 Corrective actions to contend with the situation and to mitigate possible deterioration in plant conditions **SHALL** be conducted in accordance with the BVPS Operating Manual while simultaneously implementing this Instruction.

2.3 Following the declaration of an Unusual Event, Federal regulations require notification of offsite authorities **MUST** be made within fifteen minutes. (Refer to EPP/IP 1.1)

2.4 Contaminated/injured personnel no longer constitute an emergency declaration. However, BVPS is required to notify the NRC per 10CFR50.72.

2.5 Faxing of the Initial Notification Form is NOT the "Official" Notification to the Offsite Agencies and does NOT meet the 15-minute notification criteria. The 15-minute notification criteria is met and "Official" notification made when a representative of BVPS speaks with a representative of each Offsite Agency.

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Unusual Event

Revision:

Page Number:

17

3 of 14

## E. PROCEDURE

### NOTE:

If actions are required in an emergency that are immediately needed to protect the public health and safety and departs from the license condition or Technical Specification, the action **SHALL** be approved, as a minimum, by a licensed Senior Reactor Operator prior to taking the action per 10 CFR 50.54(x) and (y).

### 1.0 Control Room NSS/ED actions:

#### NOTE:

Routine/Batch Releases at either Unit need not be discontinued upon declaration of an Unusual Event, **UNLESS** the release is the cause of the Unusual Event.

**CHECK**

- 1.1 Implement corrective actions.

#### NOTE:

Initial Notifications to the Offsite Agencies **MUST** be completed within 15 minutes of the Emergency Declaration.

- 1.2 Obtain Notification Package from the sealed EPP drawer.

#### NOTE:

Attachments designated with an \* are included in the Unusual Event Notification Package.

- 1.3 Complete INITIAL NOTIFICATION FORM (EPP/IP 1.1, Att. 1 \*).

- 1.4 Begin notifications of Offsite Agencies per EPP/IP 1.1 – On-shift Communicator.

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unusual Event

Unit:

1/2

Level Of Use:

In-Field Reference

Revision:

17

Page Number:

4 of 14

**CHECK**

- 1.5 A SRO (from the unaffected Unit) **SHALL** complete the blanks below and notify the Emergency Response Organization (ERO).

“This is \_\_\_\_\_ (Your Name)

at Beaver Valley Power Station. At \_\_\_\_\_ (time)  
hrs.

Unit \_\_\_\_\_ has declared an UNUSUAL EVENT due to:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Choose One and Continue)

- a. **DO NOT** report to your emergency facility. I repeat, **DO NOT** report to your emergency facility.
  - b. **Report** to your emergency facility. I repeat, **report** to your emergency facility.
- OR**
- c. **Report** to your alternate emergency facility. I repeat, **report** to your alternate emergency facility.”

- 1.5.1 If ERO activation is NOT required, proceed to step 1.5.12 to send a Lotus Notes message only.
- 1.5.2 From a PAX phone, dial 4370.
- 1.5.3 Interrupt the greeting by **IMMEDIATELY** entering **XXXXX**.
- 1.5.4 When prompted, enter scenario number **XXXXX**.
- 1.5.5 When prompted, verify scenario number (**9** for **YES** or **6** for **NO**).
- 1.5.6 When prompted “Do you want to record your on the fly message 1”, Press **9** for **YES** or **6** for **NO**.

(Continued)

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Unusual Event

Revision:

17

Page Number:

5 of 14

## CHECK

- 1.5.7 When prompted "Enter on the fly number 1 segment ID or press star to record"
- 1.5.7.1 **PRESS \*** (A short delay will occur).
- 1.5.8 When prompted "Please speak your message after the tone", provide the information from Step 1.5 in your on the fly message.
- 1.5.8.1 **PRESS** the # *Key* when done with message.
- 1.5.9 Review message, when prompted "Is that correct" (Press 9 for YES or 6 for NO).
- 1.5.10 When prompted "You will queue scenario XXXXX. It will now be sent. Are you sure this is what you want to do?" (Press 9 for YES or 6 for NO)
- 1.5.11 Call the Central Alarm Station (CAS) (PAX 5114/5115) and provide the following information:
- Your name and title.
  - EPP CODE WORD \_\_\_\_\_
  - An UNUSUAL EVENT has been declared.
  - ERO pagers have been activated. Call back at PAX \_\_\_\_\_ when pager activates.
  - Request Near Site Building Emergency Notifications be made.
- 1.5.12 From Lotus Notes, send a message to "beeper all call" with the information from E.1.5 above. Include if ERO is to report or not. (Limit 220 characters)
- 1.6 Complete UNUSUAL EVENT PAGE ANNOUNCEMENT FORM (EPP/I-2, Att. 1 \*).
- 1.7 Announce the Unusual Event Page Party Announcement.

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unusual Event

Unit:

1/2

Level Of Use:

In-Field Reference

Revision:

17

Page Number:

6 of 14

**NOTE:**

NRC notifications **MUST** be completed within 1 (one) hour of Emergency Declaration. (Satisfies 10CFR50.72)

**CHECK**

1.8 Complete FOLLOW-UP NOTIFICATION FORM (EPP/IP 1.1, Att. 3 \*)

1.8.1 On-shift Communications and Records Coordinator to perform Follow-Up Notifications.

1.9 Complete REACTOR PLANT EVENT NOTIFICATION WORKSHEET (NRC FORM 361).

**NOTE:**

(Licensed) Personnel from the opposite Unit should be utilized to complete NRC notifications.

NRC Operations Center

800-532-3469

or

301-816-5100

FAX: 301-816-5151

1.9.1 Provide details from NRC EVENT NOTIFICATION WORKSHEET to the NRC.

1.10 For Airborne release:

1.10.1 Complete OPERATIONAL INPUTS FOR DOSE ASSESSMENTS. (EPP/I-2, Att. 2 \*)

1.10.2 Provide Attachment 2 to Health Physics personnel.

1.10.3 Instruct Health Physics to initiate dose projections (EPP/IP 2.6).

1.10.4 Initiate offsite/onsite radiation surveys (EPP/IP 2.2, 2.3).

1.10.5 Obtain Dose Projection results from Health Physics.

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Unusual Event

Revision:

Page Number:

17

7 of 14

## CHECK

### 1.11 For Liquid Release:

1.11.1 Obtain results from Health Physics personnel. 1.11.2 Determine if Liquid Release protective action is required per EPP/IP 4.1 1.11.3 Notify downstream water treatment plants and relay PAR, if applicable, On-shift Communicator. 1.12 Escalate Emergency Classification, if necessary. 1.13 Terminate when termination criteria met per TERMINATION GUIDELINES (EPP/IP 6.2, Att. 1 \*). 

### 2.0 TSC Emergency Director Actions (If activated):

2.1 Coordinate with the Control Room to implement corrective actions. 

#### NOTE:

Attachments designated with an \* are included in the Communications and Records Coordinator Notification Area.

2.2 Instruct the Communications and Records Coordinator to complete the FOLLOW-UP NOTIFICATION FORM (EPP/IP 1.1, Att. 3 \*). 2.2.1 Review and approve completed FOLLOW-UP NOTIFICATION FORM.

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unusual Event

Unit:

1/2

Level Of Use:

In-Field Reference

Revision:

17

Page Number:

8 of 14

## CHECK

- 2.3 Instruct the Communications and Records Coordinator to fax the completed FOLLOW-UP NOTIFICATION FORM to the Offsite Agencies using the instructions located in the EPP Notification Book.

### NOTE:

NRC notifications **MUST** be completed within 1 (one) hour of Emergency Declaration. (Satisfies 10CFR50.72)

- 2.4 Instruct the TSC Operations Coordinator to complete the REACTOR PLANT EVENT NOTIFICATION WORKSHEET (NRC FORM 361).

2.4.1 Ensure that the worksheet is provided to the Operations Communicator manning the NRC ENS "RED" phone.

2.4.2 Ensure that the details from the NRC EVENT NOTIFICATION WORKSHEET are provided to the NRC.

- 2.5 For Airborne release:

2.5.1 Instruct EA&DP to initiate dose projections (EPP/IP 2.6).

2.5.2 Initiate offsite/onsite radiation surveys (EPP/IP 2.2, 2.3).

2.5.3 Obtain Dose Projection results from EA&DP.

- 2.6 For Liquid Release:

2.6.1 Obtain results from EA&DP personnel.

2.6.2 Determine if Liquid Release protective action is required per EPP/IP 4.1

2.6.3 Instruct the Communications and Records Coordinator to notify downstream water treatment plants and relay the PAR, if applicable, per EPP/IP 1.1, Attachment 2.

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Unusual Event

Revision:

17

Page Number:

9 of 14

## CHECK

2.7 Escalate Emergency Classification, if necessary.

2.8 Terminate when termination criteria met per TERMINATION GUIDELINES (EPP/IP 6.2, Att. 1).

### F. FINAL CONDITIONS

1.0 On-Call ED/alternate has been contacted.

2.0 Initial and Follow-Up Notifications completed.

3.0 The Unusual Event has been terminated with normal station administration resumed or the emergency reclassified.

4.0 Event termination calls are completed per IP 1.1

### G. ATTACHMENTS

1.0 Unusual Event Announcement

2.0 Operational Inputs For Dose Assessments

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unusual Event

Unit:

1/2

Level Of Use:

In-Field Reference

Revision:

17

Page Number:

10 of 14

**INTENTIONALLY BLANK**

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unusual Event

Unit:

1/2

Level Of Use:

In-Field Reference

Revision:

17

Page Number:

11 of 14

A5.715DD

Attachment 1 (1 of 1)

## UNUSUAL EVENT PAGE ANNOUNCEMENT

Should an Unusual Event be declared at BVPS, complete the following steps:

- 1) Sound the Station Stand-by Alarm one (1) time.
- 2) Read the following:

"Attention all Site personnel, this is an ACTUAL EVENT, BVPS Unit # \_\_\_\_ has declared an UNUSUAL EVENT at \_\_\_\_ (time) due to \_\_\_\_\_. All shift emergency response personnel should report to the Control Room. All other personnel should remain alert for additional announcements."

Additional Comments:

---

---

---

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- 3) Perform Steps 1 and 2 two (2) additional times within 15 minutes of the first announcement, unless the event is escalated or terminated.

	<u>Time</u>	<u>Initials</u>
• First Announcement	_____	_____
• Second Announcement	_____	_____
• Third Announcement	_____	_____
• Date	_____	

- 4) Restore Page System to single unit operation upon termination of the event or upon direction of the Emergency Director.

# Beaver Valley Power Station

Procedure Number:

**EPP/I-2**

Title:

**Unusual Event**

Unit:

**1/2**

Level Of Use:

**In-Field Reference**

Revision:

**17**

Page Number:

**12 of 14**

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<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/I-2</b>	
Title:  <b>Unusual Event</b>	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>17</b>	Page Number: <b>13 of 14</b>	

**Attachment 2 (1 of 2)**

**OPERATIONAL INPUTS FOR DOSE ASSESSMENTS**

To perform a dose projection, Health Physics personnel will require the following information:

- 1) Type of accident: (Circle One) If unknown, use (2) LOCA W/GAP Activity.
  - (1) **LOCA W/RCS Activity** - Loss of coolant accident and no greater than Tech Spec RCS Activity.
  - (2) **LOCA W/GAP Activity** - Loss of coolant accident and core exit thermocouples have exceeded values (e.g., core cooling, RED PATH) that may indicate damage to fuel cladding with ESF's available.
  - (3) **Design Basis LOCA** - Double ended shear of RCS piping, rapid RCS depressurization, minimum engineered safety features function.
  - (4) **LOCA W/Failed ESF's (TID14844)** - Double ended shear of RCS piping, rapid RCS depressurization, no engineered safety features function and loss of containment.
  - (5) **Small Line Break LOCA** - Loss of coolant accident via piping systems outside containment (i.e., letdown) and no greater than Tech Spec RCS activity.
  - (6) **RCCA Ejection** - Reactor control cluster ejection causes loss of coolant accident which results in 10% gap release.
  - (7) **Steam Generator Tube Rupture** - SG Tube rupture with offsite power not available and affected SG used for cooldown (condenser not available).
  - (8) **Fuel Handling Accident** - The drop of a single fuel bundle affecting another in the Fuel Handling Building.
  - (9) **Loss of AC Power** - Loss of offsite power, natural circulation cooldown.
  - (10) **Gas Waste System Failure** - Alarms or unplanned pressure loss from waste gas treatment/storage system.
  - (11) **Main Steam Line Break** - Technical Specification RCS activity, with accident induced primary-to-secondary leak.

# Beaver Valley Power Station

Procedure Number:

EPP/I-2

Title:

Unusual Event

Unit:

1/2

Level Of Use:

In-Field Reference

Revision:

17

Page Number:

14 of 14

Attachment 2 (2 of 2)

## OPERATIONAL INPUTS FOR DOSE ASSESSMENTS

- 2) Time of plant trip or start of accident: \_\_\_\_\_
- 3) Delay time between accident and start of release: \_\_\_\_\_ (Hours)
- 4) Expected, known, or default duration of release: \_\_\_\_\_ (Hours)  
(If unknown, use one (1) hour as default value.)
- 5) Known or expected release pathway: (Circle One)

<u>Rel. Point</u>	<u>Unit 1</u>	<u>Unit 2</u>
RP 1	Ventilation Vent	Ventilation Vent Condensate Pol.
RP 2	SLCRS	SLCRS
RP 3	Process Vent	Decon Building Waste Gas Building
RP 4	Main Steam	Main Steam

# Beaver Valley Power Station

Unit 1/2

EPP/IP 1.1

Notifications

Document Owner  
Manager, Emergency Preparedness

Revision Number	28
Level Of Use	In-Field Reference
Safety Related Procedure	Yes

**CONTROLLED**  
**BVPS UNIT 3**

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

i of ii

## EFFECTIVE INDEX

Issue 8 Rev.	0	OSC Approved	3-12-87
	1	OSC Approved	8-13-87
	2	OSC Approved	3-10-88
	3	OSC Approved	6-20-88
	4	Non-Safety Revisions	2-23-89
	5	Non-Safety Revisions	6-30-89
	6	OSC Approved	3-22-90
Issue 9 Rev.	0	OSC Approved	9-27-90
	1	Non-Intent Revision	6-28-91
	2	Non-Intent Revision	12-29-92
	3	Non-Intent Revision	1-27-93
Rev.	5	OSC Approved	11-10-93
Rev.	6	Non-Intent Revision	4-22-94
Rev.	7	Non-Intent Revision	7-29-94
Rev.	8	Non-Intent Revision	11-15-94
Rev.	9	Non-Intent Revision	1-20-95
Rev.	10	Non-Intent Revision	5-26-95
Rev.	11	Non-Intent Revision	9-1-95
Rev.	12	Non-Intent Revision	12-8-95
Rev.	13	Non-Intent Revision	2-1-96
Rev.	14	Non-Intent Revision	10-23-96
Rev.	15	Non-Intent Revision	1-29-97
Rev.	16	Non-Intent Revision	6-17-97
Rev.	17	Non-Intent Revision	1-16-98
Rev.	18	OSC Approved	4-1-98
Rev.	19	OSC Approved	7-1-98
Rev.	20	Non-Intent Revision	1-13-99
Rev.	21	Non-Intent Revision	9-28-99
Rev.	22	Non-Intent Revision	12-2-99
Rev.	23	Non-Intent Revision	7-12-00
Rev.	24	Non-Intent Revision	1-23-01
Rev.	25	Non-Intent Revision	5-1-01
Rev.	26	Non-Intent Revision	6-29-01
Rev.	27	Non-Intent Revision	8-8-01
Rev.	28	Non-Intent Revision	12-12-01

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

ii of ii

## TABLE OF CONTENTS

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

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

1 of 86

## A. PURPOSE

This procedure provides guidance for making initial and follow-up notifications during an emergency.

## B. REFERENCES

- 1.0 Beaver Valley Power Station Emergency Preparedness Plan.
- 2.0 Commonwealth of Pennsylvania Disaster Operations Plan/Annex E.
- 3.0 State of Ohio Nuclear Power Plant Emergency Response Plan.
- 4.0 West Virginia Radiological Emergency Plan for A Fixed Nuclear Facility.
- 5.0 Title 10, Code of Federal Regulations Part 50, Appendix E.
- 6.0 NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants".
- 7.0 Condition Report #971737.  
Condition Report #980706.  
Condition Report #991967.  
Condition Report #993020  
TCN 1/2-00-020  
Nuclear Regulatory Issue Summary 2000-11  
Condition Report #01-1975  
Condition Report #01-0693  
Condition Report #00-4309  
Condition Report #00-2202  
Condition Report #01-6697

## C. RESPONSIBILITIES

The Communications and Records Coordinator (or qualified designated communicator, until properly relieved) is responsible to ensure that all required offsite notifications are completed within the proper time frame following the declaration of an emergency. Security is responsible for initial notifications to near-site buildings.

## D. ACTION LEVELS/PRECAUTIONS

- 1.0 This procedure is to be initiated upon any of the following conditions:
  - 1.1 An emergency condition has been declared at the Beaver Valley Power Station as defined in the BVPS Emergency Preparedness Plan.
  - 1.2 An existing emergency condition has been reclassified to a higher emergency category, and/or, a significant deterioration in conditions has occurred.
  - 1.3 The emergency situation has been corrected, the emergency terminated, and recovery operations have begun.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

2 of 86

- 2.0 Emergency communications will originate in the BV 1/2 Control Rooms. See EPP/IP 1.2 "Communication and Dissemination of Information" for details of the communication systems available.
- 3.0 To minimize the spread of rumors and undue public anxiety, the following precautions should be followed:
- 3.1 All initial and follow-up notifications to County and State agencies **SHALL** be made with the Bell telephone system as the primary means, with predesignated back-ups available in the event the telephone systems are inoperable. A code word is utilized to ensure only authorized individuals receive the information.
- 3.2 Information **SHALL** be provided to only individuals whose identity is known, and whose organization is listed on the Emergency Notification Call-List EPP/IP 1.1, Attachment 2. Any requests for information should be relayed to Corporate Communications at 724-682-5201.
- 3.3 No news announcements on the incident **SHALL** be made prior to completion of all required notifications. News announcements will be developed as coordinated by the Corporate Communications Department.
- 4.0 In the event of a forced Control Room evacuation, the Onshift Communications and Records Coordinator will relocate to either CAS or the Communications Area of the TSC area of the ERF building, to make the required emergency notifications.
- 4.1 The Onshift Communications and Records Coordinator should contact the Emergency Director for form approvals and log the Emergency Director's name on the appropriate form.

Unit #1 - 724-682-5827

Unit #2 - 724-682-5327

## NOTE:

If necessary, Security may radio the officer assigned to the Emergency Director/NSS under Appendix R to relay information as needed.

- 5.0 Upon the initial declaration of an Unusual Event (only when ERO activated), Alert, Site Area Emergency or General Emergency, Security personnel in the CAS will complete Attachment 6 of this IP.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

3 of 86

- 6.0 All event notifications and escalations **SHOULD** be made to PEMA. Follow-Up Notifications **SHOULD** be directed to DEP/BRP. PEMA will ensure DEP/BRP is informed of the situation and contacts the plant for verification and assessment of the incident.
- 7.0 Should any emergency situation require contacting the Beaver County Emergency Services Center (i.e., fire, ambulance), **DO NOT** use 9-1-1. **NOTIFY** Beaver County Emergency Services Center at (724) 775-0880.
- 8.0 Once the County Emergency Operations Centers (EOC's) are activated, the Coordinators may inform the BVPS emergency communicator of an alternate phone number to be utilized.
- 9.0 Should there be questions concerning the required notifications and/or the appropriate paperwork (notification forms, logs, etc.), personnel from Emergency Preparedness may be contacted for assistance.

## E. PROCEDURE

### NOTE:

Initial Notifications are to be made to the first six listed Agencies on the Emergency Notifications Call List, EPP/IP 1.1, Attachment 2 and **MUST** be made within 15 minutes of the event declaration. Subsequent notifications **MUST** still be made.

### NOTE:

The BVPS Radio System is the alternate to the commercial phone system for notifications of offsite emergency response organizations. **EPP/IP 1.2 Attachment 3, Step 6.0** provides direction in its use.

### NOTE:

If an emergency is reclassified and upgraded during the Follow-Up Notification process, the Communicator **SHALL** terminate the notification in progress and begin the upgraded Initial Notification process again per appropriate Attachment. If the Initial Notification Conference (INC) call is in progress, then the upgraded notifications **SHALL** be provided at this time. The 15-minute clock for the notifications will restart at the time of the upgraded declaration.

### NOTE:

IF contact cannot be made with the State of West Virginia, contact Hancock County (WVa) stating West Virginia did not answer and request Hancock County Office of Emergency Services contact the State with the Initial Notification information. It does not need read again.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

4 of 86

## NOTE:

Faxing of the Initial Notification Form is NOT the "Official" Notification to the Offsite Agencies and does NOT meet the 15-minute notification criteria. The 15-minute notification criteria is met and "Official" notification made when a representative of BVPS speaks with a representative of each Offsite Agency.

### 1.0 Initial Notifications

1.1 Complete Initial Notifications and document as thoroughly as possible according to the instructions provided.

1.2 Control Room personnel should utilize Part A of the applicable notification Attachment shown below.

- Unusual Event Notification Attachment 8
- Alert Notification Attachment 9
- Site Area Emergency Notification Attachment 10
- General Emergency Notification Attachment 11

1.3 TSC personnel should refer to Attachments 12 and 13.

### 2.0 Follow-Up Notifications

## NOTE:

The follow-up notification provides technical information to those qualified to use the data and serves as a means to verify the authenticity of an emergency notification. The code word also provides verification.

## NOTE:

Information for the Gaseous Follow-Up Notification Form is available via a MIDAS printout from Health Physics or EA&DP personnel.

2.1 Control Room personnel should utilize the applicable part of the Notification Attachment shown below.

- Unusual Event Notification Attachment 8
- Alert Notification Attachment 9
- Site Area Emergency Notification Attachment 10
- General Emergency Notification Attachment 11

2.2 TSC personnel should refer to Attachment 12, Step 3.0.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

5 of 86

## 3.0 Subsequent Notifications

- 3.1 If it becomes necessary to reclassify the emergency, the Initial Notification Form is used and notifications are made in the same manner specified in Section E-1 of this procedure.
- 3.2 The Follow-Up Notification Form should be updated periodically (i.e., 2 times per shift) or at the discretion of the Emergency Director. This notification does not represent a change in classification.

## 4.0 Transfer of Responsibility

- 4.1 When TSC personnel are activated and have arrived onsite, a turnover **SHALL** be performed from the on-shift response organization to the TSC response organization.
- 4.2 When informed by TSC Communications and Records Coordinator, transfer communication responsibilities from the Control Room to the Technical Support Center.

## 5.0 Termination

- 5.1 When the emergency situation at BVPS has been terminated, make the appropriate termination calls per Attachment 5, Emergency Termination Checklist.

## F. FINAL CONDITIONS

- 1.0 Use of this procedure **SHALL** be terminated when the emergency situation is corrected or when directed by the Emergency Director.
- 2.0 Attachment 5 (Emergency Termination Checklist) is to be completed for termination calls to offsite agencies for all emergency events.

### NOTE:

Upon termination of the emergency situation and the subsequent termination of this IP, All originals of completed Attachments **SHALL** be forwarded to Emergency Preparedness.

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>6 of 86</b>	

**G. ATTACHMENTS**

- 1.0 INITIAL NOTIFICATION FORM
- 2.0 EMERGENCY NOTIFICATION CALL-LIST
- 3.0 FOLLOW-UP NOTIFICATION FORM
- 4.0 REACTOR PLANT EVENT NOTIFICATION WORKSHEET (NRC FORM 361)
- 5.0 EMERGENCY TERMINATION CHECKLIST
- 6.0 NEAR-SITE BUILDING EMERGENCY NOTIFICATIONS
- 7.0 ACTIVATION OF THE ERO USING BEEPERS AND ERO VOICE MAIL SYSTEM
- 8.0 UNUSUAL EVENT NOTIFICATIONS
- 9.0 ALERT NOTIFICATIONS
- 10.0 SITE AREA EMERGENCY NOTIFICATIONS
- 11.0 GENERAL EMERGENCY NOTIFICATIONS
- 12.0 TSC EVENT NOTIFICATIONS
- 13.0 NOTIFICATION FORM FAXING INSTRUCTIONS (Example)
- 14.0 ERO BEEPER ACTIVATION INSTRUCTIONS (Example)
- 15.0 ACTIVATION OF THE INITIAL NOTIFICATION CONFERENCE (INC) CALL INSTRUCTIONS (Example)
- 16.0 INSTRUCTIONS FOR NOTIFICATION OF ERO FOR EVENT ESCALATION/UPDATES



# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

8 of 86

**INTENTIONALLY BLANK**

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

9 of 86

## EMERGENCY NOTIFICATION CALL-LIST

ATTACHMENT 2

(1 of 10)

A5.715DQ

### INITIAL NOTIFICATION

THE AGENCIES LISTED BELOW MUST BE NOTIFIED WITHIN FIFTEEN (15) MINUTES  
AFTER THE EMERGENCY HAS BEEN DECLARED.

ORGANIZATION	CIRCLE ONE		CIRCLE ONE		CONTACT NAME	TIME*	FAX	INI.
	PRIMARY NUMBER	ALTERNATE NUMBER	EMERGENCY CLASS					
1. Beaver County Emergency Management Agency Relay To: R. Chiodo, Director EOC Number: _____	724-775-0880 9-1-1 Dispatcher Beaver, PA 724-775-8605-FAX	724-774-1049 BCEMA Director Director's Office 724-775-1163-FAX	UE	SAE			Y	
			ALERT	GE			N	
2. PA Emergency Management Agency Duty Officer	1-717-651-2001 1-717-651-2021-FAX	Relay Thru BC-911 724-775-0880 BCEMA Director	UE	SAE			Y	
			ALERT	GE			N	
3. Columbiana County Emergency Management Agency Relay To: J. Carter, Director EOC Number: _____	1-330-424-7255 Sheriff's Dispatcher Lisbon, OH 1-330-424-3602-FAX	1-330-424-9725 CCEMA Director Director's Office 1-330-424-9267-FAX	UE	SAE			Y	
			ALERT	GE			N	
4. Ohio Emergency Management Agency Duty Officer EOC Number: _____	1-614-889-7150 Columbus, OH 1-614-764-2742-FAX	1-614-466-2660 Ohio Highway Patrol Dispatcher 1-614-799-9249-FAX	UE	SAE			Y	
			ALERT	GE			N	
5. West Virginia Office of Emergency Services Duty Officer	1-304-558-5380 Charleston, WV 1-304-344-4538-FAX	1-304-564-4100 Sheriff's 9-1-1 Dispatcher New Cumberland, WV	UE	SAE			Y	
			ALERT	GE			N	
6. Hancock County Office of Emergency Services Relay To: J.P. Jones, Director EOC Number: _____	1-304-564-4100 Sheriff's 9-1-1 Dispatcher 1-304-564-4273-FAX N. Cumberland, WV	1-304-564-4068 HCOES Dispatcher Dispatcher's Office 1-304-564-4031-FAX	UE	SAE			Y	
			ALERT	GE			N	

\* Contact Time = Time of Initial Contact With Individual

Comm&Records Coord Signature: \_\_\_\_\_

Date: \_\_\_\_\_

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
Notifications	Revision: <b>28</b>	Page Number: <b>10 of 86</b>	

**EMERGENCY NOTIFICATION CALL-LIST**

**ATTACHMENT 2 (2 of 10)  
A5.715DQ**

**FOLLOWUP NOTIFICATION**

ORGANIZATION	CIRCLE ONE		CIRCLE ONE		CONTACT		FAX	INI
	PRIMARY NUMBER	ALTERNATE NUMBER	EMERGENCY CLASS		NAME	TIME*		
1. Beaver County Emergency Management Agency Relay To: R. Chiodo, Director EOC Number:	724-775-0880 9-1-1 Dispatcher Beaver, PA	724-774-1049 BCEMA Director Director's Office	UE SAE ALERT GE				Y N	
2. PEMA / DEP/BRP	1-717-651-2001	Relay Thru BC-911 724-775-0880 BCEMA Director	UE SAE ALERT GE				Y N	
3. Columbiana County Emergency Management Agency Relay To: J. Carter, Director EOC Number:	1-330-424-7255 Sheriff's Dispatcher Lisbon, OH	1-330-424-9725 CCEMA Director Director's Office	UE SAE ALERT GE				Y N	
4. Ohio Emergency Management Agency Duty Officer EOC Number:	1-614-889-7150 Columbus, OH	1-614-466-2660 Ohio Highway Patrol Dispatcher	UE SAE ALERT GE				Y N	
5. West Virginia Office of Emergency Services Duty Officer	1-304-558-5380 Charleston, WV	1-304-564-4100 Sheriff's 9-1-1 Dispatcher New Cumberland, WV	UE SAE ALERT GE				Y N	
6. Hancock County Office of Emergency Services Relay To: J.P. Jones, Director EOC Number:	1-304-564-4100 Sheriff's 9-1-1 Dispatcher N. Cumberland, WV	1-304-564-4068 HCOES Dispatcher Dispatcher's Office	UE SAE ALERT GE				Y N	

\* Contact Time = Time of Initial Contact With Individual

Comm&Records Coord Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

11 of 86

## EMERGENCY NOTIFICATION CALL-LIST (Cont'd)

ATTACHMENT 2

(3 of 10)

A5.715DQ

The following are to be notified only for the emergency classifications listed in the Emergency Class column.

ORGANIZATION	CIRCLE ONE		CIRCLE ONE	CONTACT		INITIALS
	PRIMARY NUMBER	ALTERNATE NUMBER	EMERGENCY CLASS	NAME	TIME*	
7. U.S. Nuclear Regulatory Commission  During Normal Working Hours	NRC/ENS  FAX	1-301-816-5100 or 1-301-951-0550 or 1-301-415-0550 1-301-816-5151	UE SAE  ALERT GE			
8. Contact one of the following: Superintendent Unit 1 Operations or Superintendent Unit 2 Operations Notifies  Plant Mgr. Notifies  Sr. V.P. BVPS	5111  5104  1895  5234	Albert Hartner 724-378-2639 G. E. Storolis W. Pearce 724-643-4543 L. Myers 330-757-7177	      UE ONLY			
9. Corp. Comm. (Notify One) A. J. Fenwick  T. M. Schneider  R. G. Wilkins	5201 330-761-4055 419-321-7129	724-899-2396-(H) 412-305-1012 (P) 330-659-6216 (H) 440-733-0728 (P) 440-774-2606 (Pager 1-419-640-3229)	UE ONLY			
10 BVPS Emergency Preparedness (Notify One) S. L. Vicinie H. I. Szklinski J. C. Contreras S. J. Paletta D. W. Skorupan	5767  5772 5773 5774 5808	724-869-7165  724-457-9210 412-795-4931 304-387-4393	UE ONLY			
11 NRC BVPS Site Rep. (Notify One) D. Kern G. Wertz	5570 5570	724-728-3135 724-770-0393	UE ONLY			

\* Contact Time = Time of Initial Contact With Individual

Comm&Records Coord Signature: \_\_\_\_\_

Date: \_\_\_\_\_

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>12 of 86</b>	

**EMERGENCY NOTIFICATION CALL-LIST (Cont'd)**

**ATTACHMENT 2 (4 of 10)  
A5.715DQ**

The following organizations are notified only for the emergency classifications listed in the Emergency Class. column.

ORGANIZATION	NUMBER	CIRCLE ONE	CONTACT		INITIALS
		EMERGENCY CLASS	NAME	TIME*	
12. Bruce Mansfield Power Station	724-643-2300 724-643-5851	ALERT  SAE GE			
13. Midland Water Plant	724-643-4920 (8:00-11:00 a.m. M thru F)  Alternate: Beaver Co. EMA - 724-775-0880	Liquid Release			
14. East Liverpool Water Plant  Contact: Mr. Clark	1-330-385-5050 1-330-385-8812	Liquid Release			
15. Chester, W. VA. Water Plant	1-304-564-4100 (24 hours) 1-304-387-2820	Liquid Release			
16. U.S Corps of Engineering  a. New Cumberland Dam (Downriver) b. Montgomery Dam (Upriver)	1-740-537-2571 724-643-8400  Alternate: Beaver Co. EMA-724-775-0880	Liquid Release			
17. U.S. Coast Guard Marine Safety	412-644-5808 (Daylight) 1-800-253-7465 (Night) 1-800-424-8802 (Nat'l Response) Alternate: Beaver Co. EMA-724-775-0880	All offsite Releases - Actual or Imminent			
18. INPO	1-800-321-0614 (24 hr.) (Switchboard) FAX - 1-770-644-8549 FAX - 1-770-644-8567 FAX - 1-770-644-8594	ALERT  SAE GE			

\* Contact Time - Time of Initial Contact With Individual

Comm&Records Control Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

13 of 86

## EMERGENCY NOTIFICATION CALL-LIST (Cont'd)

ATTACHMENT 2

(5 of 10)

A5.715DQ

The following organizations are notified only for the emergency classifications listed in the Emergency Class. column.

ORGANIZATION	NUMBER	CIRCLE ONE	CONTACT		INITIALS
		EMERGENCY CLASS	NAME	TIME*	
19. Westinghouse Atomic Power Division					
a. Site Rep. (Don Durkosh)	724-682-5461 (W) 412-305-3198 (B) 412-741-1861 (H) 724-544-3010 (Cell)				
b. Ken Blanchard	412-374-6605 (W) 724-327-9051 (H) 412-760-4863				
b. Ed Dzanis	724-682-5188 (W) 724-834-2427 (H) 724-493-0793 (cell) (412-305-0601 (B)	ALERT  SAE      GE			
20. American Nuclear Insurers					
• Radiological Nuclear Emergencies	1-860-561-3433 (Ext. 500)	ALERT  SAE      GE			

\* Contact Time = Time of Initial Contact With Individual

Comm&Records Coord Signature: \_\_\_\_\_

Date: \_\_\_\_\_

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>14 of 86</b>	

**EMERGENCY NOTIFICATION CALL-LIST (Cont'd)**

**ATTACHMENT 2 (6 of 10)  
A5.715DQ**

The following organizations are not normally notified directly in the event of an emergency at BVPS, but may be contacted if particular emergency conditions warrant.

ORGANIZATION	NUMBER	CIRCLE ONE		CONTACT		INITIALS
		EMERGENCY CLASS		NAME	TIME*	
21. Pennsylvania DEP/BRP	1-717-651-2001	UE	ALERT			
		SAE	GE			
22. Ohio Dept. of Health Bureau of Radiation Protection	614-644-2727	UE	ALERT			
		SAE	GE			
23. Pennsylvania State Police (Brighton Barracks)	724-773-7400	UE	ALERT			
		SAE	GE			
24. BOC Gases	1-304-387-0889 (24 Hrs.)	UE	ALERT			
		SAE	GE			
25. Ashland Oil Co.	1-800-274-5263	UE	ALERT			
		SAE	GE			
26. Freedom Station Valvoline Oil	724-774-2020	UE	ALERT			
		SAE	GE			
27. Buckeye Pipeline Co.	1-800-523-9420 (24 Hrs.) 1-800-551-1285 (24 Hrs.) 1-800-331-4115 (24 Hrs.)	UE	ALERT			
		SAE	GE			

\* Contact Time = Time of Initial Contact With Individual

Comm&Records Coord Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

15 of 86

**EMERGENCY NOTIFICATION CALL-LIST (Cont'd)**

**ATTACHMENT 2 (7 of 10)  
A5.715DQ**

The following organizations are not normally notified directly in the event of an emergency at BVPS, but may be contacted if particular emergency conditions warrant.

ORGANIZATION	NUMBER	CIRCLE ONE		CONTACT		INITIALS
		EMERGENCY CLASS		NAME	TIME*	
28 Peoples Natural Gas	1-800-300-3333	UE	ALERT			
		SAE	GE			
29. DOE RAP/IRAP Brookhaven Area Office	1-631-344-2200 (24 Hrs.)	UE	ALERT			
		SAE	GE			
30. Medic-Rescue Ambulance Service	Relay through Beaver Co. EMA-724-775-0880 Alternate: 724-773-3104 724-728-3620 (Office)	UE	ALERT			
		SAE	GE			
31. Shippingport Fire Department	Relay through Beaver Co. EMA-724-775-0880  Alternate: 724-773-3100	UE	ALERT			
		SAE	GE			
32. Shippingport Borough	Relay through Beaver Co. EMA-724-775-0880  Alternate: Police 724-643-1371 Manager 724-643-4333 (W), 724-643-9661 (H)	UE	ALERT			
		SAE	GE			

\* Contact Time = Time of Initial Contact With Individual

Comm&Records Coord Signature: \_\_\_\_\_

Date: \_\_\_\_\_

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>16 of 86</b>	

**EMERGENCY NOTIFICATION CALL-LIST (Cont'd)**

**ATTACHMENT 2 (8 of 10)  
A5.715DQ**

The following organizations are not normally notified directly in the event of an emergency at BVPS, but may be contacted if particular emergency conditions warrant.

ORGANIZATION	NUMBER	CIRCLE ONE	CONTACT		INITIALS
		EMERGENCY CLASS	NAME	TIME*	
33. The Medical Center, Beaver, PA Emergency Room	724-728-7110 724-773-3401 Alternate: Relay through Beaver Co. EMA-724-775-0880	UE ALERT SAE GE			
34. University of Pittsburgh Medical Center - Presbyterian Emergency Room	412-647-3333	UE ALERT SAE GE			
35. UPMC - Presby Radiation Emergency Response Program, Dept. of Radiation Medicine Radiation Safety Office	412-647-3595 412-624-2728	UE ALERT SAE GE			
36. West Virginia Bureau For Public Health /Radiation Protection	1-304-558-3526	UE ALERT SAE GE			
37. CSX Transportation Chief Dispatcher	1-800-232-0144	UE ALERT SAE GE			

\* Contact Time = Time of Initial Contact With Individual

Comm&Records Coord Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

17 of 86

**EMERGENCY NOTIFICATION CALL-LIST (Cont'd)**

**ATTACHMENT 2**

**(9 of 10)**

**A5.715DQ**

The following organizations are not normally notified directly in the event of an emergency at BVPS, but may be contacted if particular emergency conditions warrant.

ORGANIZATION	NUMBER	CIRCLE ONE		CONTACT		INITIALS
		EMERGENCY CLASS		NAME	TIME*	
38. US National Weather Service-Pittsburgh Forecast Office Coraopolis Office	412-262-1882 (24 Hrs.)	UE	ALERT			
		SAE	GE			
39. US Corps of Engineers Emergency Management Divisions	412-395-7144	UE	ALERT			
		SAE	GE			
40. EPA Region III	215-814-9016	UE	ALERT			
		SAE	GE			
41. National Response Center-DC (All Hazards)	800-424-8802 (24 Hrs.)	UE	ALERT			
		SAE	GE			
42. PA Dept. of Environmental Protection	412-442-4000 (24 Hrs.)	UE	ALERT			
		SAE	GE			
43. PennDOT - Bridgeville Office Dist. Maint. Engr. - William Sacco	412-429-5002 (W) 724-693-8214 (H)	UE	ALERT			
		SAE	GE			
44. PennDOT - Rochester Office Maint. Manager - Frank Bologna	724-774-6610 (W) 724-869-5296 (H)	UE	ALERT			
		SAE	GE			

\* Contact Time = Time of Initial Contact With Individual

Comm&Records Coord Signature: \_\_\_\_\_

Date: \_\_\_\_\_

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>18 of 86</b>	

**EMERGENCY NOTIFICATION CALL-LIST**

(Cont.) ATTACHMENT 2 (10 of 10)  
**A5.715DQ**

**APPENDIX R PAX PHONES**

**Unit #1**

East Cable Vault (BIP Area)            5827

West Cable Vault                            5827

**Unit #2**

Alternate Shutdown Panel            5327

**NOTE:**    If necessary, CAS may radio the officer assigned to the Emergency Director/NSS under Appendix R, to relay information, as needed.

# Beaver Valley Power Station

Procedure Number:  
**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

19 of 86

**BEAVER VALLEY POWER STATION**

**ATTACHMENT 3 (1 of 5)  
A5.715DR**

## **FOLLOW-UP NOTIFICATION FORM**

THIS IS A DRILL

*THIS IS AN ACTUAL EVENT*

### NOTE:

**NO IMMEDIATE CALLBACK IS REQUIRED.** If you have not received a call verifying receipt of this FAX within 30 minutes, please call (724) 643-8000.

1. THIS IS: \_\_\_\_\_ AT BEAVER VALLEY POWER STATION  
UNIT 1/UNIT 2, THE CODE WORD IS \_\_\_\_\_. MAY I HAVE YOUR  
NAME PLEASE \_\_\_\_\_.

2. THE FOLLOWING DATA REPRESENT THE MOST CURRENT AND ACCURATE  
INFORMATION, PROJECTIONS, AND/OR PROGNOSIS AVAILABLE AS OF:

TIME: \_\_\_\_\_

DATE: \_\_\_\_\_

3. EMERGENCY CLASSIFICATION:

UNUSUAL EVENT

SITE AREA EMERGENCY

ALERT

GENERAL EMERGENCY

DECLARED AT: TIME \_\_\_\_\_

DATE \_\_\_\_\_

4. CAUSE OF EMERGENCY (EAL \_\_\_\_ ) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APPROVED \_\_\_\_\_

# \_\_\_\_\_  
FOLLOW-UP NOTIFICATION

### NOTE:

**THIS PAPER IS INTENDED TO BE PINK FOR BVPS ONLY, IT IS WHITE TO ACCOMODATE FAXING.**

# Beaver Valley Power Station

Procedure Number:  
EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

20 of 86

**BEAVER VALLEY POWER STATION**

**ATTACHMENT 3 (2 of 5)  
A5.715DR**

## **FOLLOW-UP NOTIFICATION FORM**

5. CURRENT PLANT STATUS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

CONDITIONS: STABLE  UNSTABLE

REACTOR: SHUTDOWN  AT POWER

EQUIPMENT DAMAGE:

NONE  MINOR  MAJOR

COOLING: NORMAL COOLDOWN (FORCED FLOW)

NORMAL COOLDOWN (NATURAL CIRCULATION)

SAFETY INJECTION COOLDOWN (FEED AND BLEED)

N/A

6. ACCIDENTAL RADIOLOGICAL RELEASE: (TSC Only, See EA&DP)

GASEOUS TO ATMOSPHERE

LIQUID TO OHIO RIVER

N/A

7. SURFACE CONTAMINATION ESTIMATES: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8. NON-PLANNED RADIOLOGICAL RELEASE: (TSC Only, See EA&DP)

NO ROUTINE BATCH RELEASES WAS IN PROGRESS  
PRIOR TO DECLARATION.

ANY ROUTINE BATCH RELEASE HAS BEEN DISCONTINUED

N/A

9. REQUEST FOR OFFSITE SUPPORT: Specify Needs: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NOTE:

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# Beaver Valley Power Station

Procedure Number:  
**EPP/IP 1.1**

Title:

Unit: **1/2** Level Of Use:  
In-Field Reference

Notifications

Revision: **28** Page Number:  
**21 of 86**

## GASEOUS

ATTACHMENT 3 (3 of 5)  
A5.715DR

### FOLLOW-UP NOTIFICATION FORM

**NOTE:** Items numbered to coincide with MIDAS print-out.

- [ 1 ] Time Prepared: \_\_\_\_\_
- [ 2 ] Type of Accident: (Circle One)
- LOCA/WITH DBA ACTIVITY
  - STM GEN TUBE RUPTURE
  - FUEL HANDLING ACCIDENT
  - SMALL LINE BREAK LOCA
  - LOSS OF AC POWER
  - WASTE GAS DECAY TANK
  - LOCA/WITH GAP ACTIVITY
  - RCCA EJECT
  - FSAR BASIS
  - LOCA/WITH RCS ACTIVITY
  - MAIN STEAMLINE
  - TID LOCA
- [ 3 ] Time of Rx Trip or Accident start: \_\_\_\_\_
- [ 4 ] Release Started: (Y) (N) [ 5 ] Time: \_\_\_\_\_ (actual) (proj.)
- [ 6 ] Release Stopped: (Y) (N) [ 7 ] Duration: \_\_\_\_\_ (actual) (proj.)
- [ 8 ] Potential For Additional Release: (Y) (N)
- [ 9 ] Projected Release Based on: \_\_\_\_\_
- [ 10 ] Noble Gas: \_\_\_\_\_ uCi/sec
- [ 11 ] Iodine: \_\_\_\_\_ uCi/sec
- [ 12 ] Total: \_\_\_\_\_ uCi/sec
- [ 13 ] I/NG Ratio: \_\_\_\_\_
- [ 14 ] Monitor ID: \_\_\_\_\_ U1 or U2 (Circle One)
- [ 15 ] Reading: \_\_\_\_\_ cpm or uCi/cc (Circle One) [ 16 ] Flow: \_\_\_\_\_ cfm
- [ 17 ] 35ft Wind Speed: \_\_\_\_\_ [ 18 ] Delta-T: \_\_\_\_\_ [ 19 ] Stability: \_\_\_\_\_
- [ 20 ] 150ft Direction: \_\_\_\_\_ [ 21 ] 500ft Direction: \_\_\_\_\_ [ 22 ] Precip: (Y) (N)
- [ 23 ] Source: \_\_\_\_\_

**NOTE:**

**THIS PAPER IS INTENDED TO BE PINK FOR BVPS ONLY, IT IS WHITE TO ACCOMODATE FAXING.**

# Beaver Valley Power Station

Procedure Number:  
EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

22 of 86

## GASEOUS

ATTACHMENT 3 (4 of 5)  
A5.715DR

### FOLLOW-UP NOTIFICATION FORM

	Dist	Sectors (a)	TEDE (b)	Projected Thyroid CDE (c)
[ 24 ]	EAB	_____	_____ REM	_____ REM
[ 25 ]	2 mi	_____	_____ REM	_____ REM
[ 26 ]	5 mi	_____	_____ REM	_____ REM
[ 27 ]	10 mi	_____	_____ REM	_____ REM

[ 28 ] EDE-TO-TEDE Ratio: \_\_\_\_\_

[ 29 ] Actual Field Monitoring Results:

Time (a)	Point (b)	WB REM/Hr (c)	Thy REM/Hr (d)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

OFFSITE PROTECTIVE ACTION RECOMMENDATION: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOTE:

THIS PAPER IS INTENDED TO BE PINK FOR BVPS ONLY, IT IS WHITE TO ACCOMODATE FAXING.

# Beaver Valley Power Station

Procedure Number:  
EPP/IP 1.1

Title:

Unit: 1/2      Level Of Use: In-Field Reference

Notifications

Revision: 28      Page Number: 23 of 86

## LIQUID

ATTACHMENT 3 (5 of 5)  
A5.715DR

### FOLLOW-UP NOTIFICATION FORM

DATE \_\_\_\_\_ / TIME \_\_\_\_\_

1. Potential For Additional Release:    Yes        No

LIQUID RELEASE ASSESSMENT:

PROCEDURE \_\_\_\_\_ ATTACHMENT(s) \_\_\_\_\_

2. RADIONUCLIDES IN SAMPLE:

H-3 = _____	uCi/ml	_____ = _____	uCi/ml
_____ = _____	uCi/ml	_____ = _____	uCi/ml
_____ = _____	uCi/ml	_____ = _____	uCi/ml
_____ = _____	uCi/ml	_____ = _____	uCi/ml
_____ = _____	uCi/ml	_____ = _____	uCi/ml
_____ = _____	uCi/ml	_____ = _____	uCi/ml

- |                             | <u>Actual</u>  | <u>Projected</u> |
|-----------------------------|----------------|------------------|
| 3. TIME OF RELEASE START    | _____          | _____            |
| TIME OF RELEASE STOP        | _____          | _____            |
| RELEASE DURATION            | _____ Hrs      | _____ Hrs.       |
| RELEASE FLOW RATE           | _____ gpm      | _____ gpm        |
| DILUTION RATE (Due to BVPS) | _____ gpm      | _____ gpm        |
| OHIO RIVER FLOW RATE        | _____ cuft/sec | _____ cuft/sec   |

4. **TS/ODCM FRACTION** \_\_\_\_\_  
(TS/ODCM Limit = 10 x NRC-EC)

- No Emergency
- Unusual Event (TS/ODCM Fraction is > 2, and release ≥ 60 minutes)
- Alert Emergency (TS/ODCM Fraction is > 200, and release ≥ 15 minutes)

5. **EPA MPC FRACTION** \_\_\_\_\_

- No PAR required (EPA-MPC is < 12)
- PAR REQUIRED PER EPP/IP 4.1 (EPA-MPC > 12: NOTIFY THE MIDLAND WATER TREATMENT PLANT AND RECOMMEND THE PLANT STOP INTAKE FROM THE OHIO RIVER UNTIL NOTIFIED BY DEP/BRP. ALSO REFER TO EPP/IP 1.1 ATTACHMENT 2 FOR OTHER NOTIFICATIONS.)

NOTE:

THIS PAPER IS INTENDED TO BE PINK FOR BVPS ONLY, IT IS WHITE TO ACCOMODATE FAXING.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

24 of 86

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# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

25 of 86

**ATTACHMENT 4 (1 of 2)  
A5.715DS**

## **REACTOR PLANT EVENT NOTIFICATION WORKSHEET (NRC FORM 361)**

**THIS FORM IS NOW LOCATED ON THE REGULATORY AFFAIRS WEB PAGE. HARD  
COPIES ARE MAINTAINED IN THE NOTIFICATION PACKAGES IN THE CONTROL  
ROOM AND TSC.**

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>26 of 86</b>	

**ATTACHMENT 4 (2 of 2)  
A5.715DS**

**REACTOR PLANT  
EVENT NOTIFICATION WORKSHEET  
(NRC FORM 361)**

**THIS FORM IS NOW LOCATED ON THE REGULATORY AFFAIRS WEB PAGE. HARD  
COPIES ARE MAINTAINED IN THE NOTIFICATION PACKAGES IN THE CONTROL  
ROOM AND TSC.**

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>27 of 86</b>	

**BEAVER VALLEY POWER STATION**

**ATTACHMENT 5 (1 of 2)  
A5.715DT**

**EMERGENCY TERMINATION CHECKLIST**

**NOTE:** The Offsite agencies **DO NOT** maintain the Emergency Termination Checklist. Instruct the agency to log the termination information and inform the cognizant individual of their organization of the termination date and time.

"This is Beaver Valley Power Station. This notification is to inform you that the emergency situation at Beaver Valley Power Station has been terminated on

\_\_\_\_\_ Date \_\_\_\_\_ hours. Please complete all applicable procedures before terminating."

ORGANIZATION	PERSON CONTACTED	NUMBER	CONTACT TIME *	INITIALS
Beaver County Emergency Management Agency		724-775-0880		
PA Emergency Management Agency		1-717-651-2001		
Columbiana County Emergency Management Agency		1-330-424-7255		
Ohio Emergency Management Agency		1-614-889-7150		
Hancock County Office of Emergency Services		1-304-564-4100		
West Virginia Office of Emergency Services		1-304-558-5380		
U.S. Nuclear Regulatory Commission		1-301-816-5100		
Corporate Communications		724-682-5201		
Bruce Mansfield Power Station		724-643-2300		

\* Contact Time = Time of Initial Contact With Individual

Approved (ED/ERM) \_\_\_\_\_

Date: \_\_\_\_\_

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>28 of 86</b>	

**BEAVER VALLEY POWER STATION**

**ATTACHMENT 5 (2 of 2)  
A5.715DT**

**EMERGENCY TERMINATION CHECKLIST**

**NOTE:** The Offsite agencies **DO NOT** maintain the Emergency Termination Checklist. Instruct the agency to log the termination information and inform the cognizant individual of their organization of the termination date and time.

<b>ORGANIZATION</b>	<b>PERSON CONTACTED</b>	<b>NUMBER</b>	<b>CONTACT TIME *</b>	<b>INITIALS</b>

\* Contact Time = Time of Initial Contact With Individual

Approved (ED/ERM) \_\_\_\_\_

Date: \_\_\_\_\_

# Beaver Valley Power Station

Procedure Number:  
**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

29 of 86

## BEAVER VALLEY POWER STATION

**ATTACHMENT 6 (1 of 2)**  
**A5.715GP**

### **SECURITY NEAR-SITE BUILDING**

### **EMERGENCY NOTIFICATION INSTRUCTIONS**

- 1) At the initial declaration of an Alert, or higher, emergency classification or if a Site protective action is required as determined by the Emergency Director (NSS), Security personnel **SHALL** page each of the following facilities using the building page number shown below or contact a listed individual.

#### TIME NOTIFIED

A Training Building

\_\_\_\_\_

PAX 7003 Building Page

B Simulator Building

\_\_\_\_\_

PAX 7001 Building Page

C Site Engineering Building (SEB)

\_\_\_\_\_

PAX 7007 Building Page

D Warehouse 22

\_\_\_\_\_

PAX 7002 Building Page

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit:	Level Of Use:	
	<b>1/2</b>	<b>In-Field Reference</b>	
	Revision:	Page Number:	
	<b>28</b>	<b>30 of 86</b>	

**BEAVER VALLEY POWER STATION**

**ATTACHMENT 6 (2 of 2)  
A5.715GP**

**SECURITY NEAR-SITE BUILDING  
EMERGENCY NOTIFICATION INSTRUCTIONS**

- 2) Security personnel will circle or complete the following information per the Emergency Director (designee) and provide over the page/phone. Repeat message.

**PART I**

This is an ACTUAL EVENT. Beaver Valley Power Station Unit # 1 / 2 has declared an emergency classification of ALERT / SITE AREA / GENERAL EMERGENCY at (Time) \_\_\_\_\_ . All Emergency Response Personnel **SHALL** report to their Emergency Response positions. This is an ACTUAL EVENT.

**PART II**

**NOTE: READ ONLY IF A SITE EVACUATION IS REQUIRED.**

This is an ACTUAL EVENT. A Site Evacuation has been declared by the Emergency Director.

All non-emergency response personnel:

- 1) Are dismissed to GO HOME.
- 2) REPORT TO THE Hookstown Grange Offsite Assembly Area, or
- 3) REPORT TO THE Western District Headquarters Raccoon Substation) Offsite Assembly Area to await further instructions.

This is an ACTUAL EVENT.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

31 of 86

## ATTACHMENT 7 (1 of 8)

### ACTIVATION OF THE ERO USING BEEPERS AND ERO VOICE MAIL SYSTEM

#### A. PURPOSE

This attachment is for using beepers and the Voice Mail System to make emergency event notifications to Emergency Response Organization (ERO) personnel and to verify that adequate ERO staffing levels are available.

#### B. RESPONSIBILITY

The Onshift Communications and Records Coordinator is responsible to ensure the actions outlined in this attachment are implemented.

#### C. EQUIPMENT AND MATERIALS

1.0 The following beeper notification system equipment is kept in CAS:

1.1 ERO beeper.

2.0 The following are found in the Control Room EPP sealed drawer.

2.1 Event Classification Packages

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>32 of 86</b>	

**ATTACHMENT 7 (2 of 8)**

**D. PROCEDURE**

1.0 Beeper Activation, using ERO Voice Mail System by CAS.

**NOTE:**

If at any time prior to beeper activation utilizing the 5080 suffix, the beepers activate with the appropriate message and with 4370 or 4380 as the last four (4) digits, continue with the Initial Notifications in progress.

1.1 Upon the failure of the BVERS to actuate the ERO beepers, or at the discretion of the NSS/Emergency Director, the Onshift Communications and Records Coordinator **SHALL** call the Central Alarm Station (CAS), providing to the Nuclear Security Shift Supervisor or designee the following:

1.1.1 Your name and position.

1.1.2 EPP Code Word.

1.1.3 Event Classification

1.1.4 Appropriate beeper code:

9999995080 ("Actual Event")

0000005080 ("Actual Event--Site Inaccessible")

1.1.5 Request a call back when CAS pager actuates with proper code.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

33 of 86

## ATTACHMENT 7 (3 of 8)

1.1.6 Instructions as to which message to be used for the ERO Voice Mail System:

"Actual Event"

"Actual Event--Site Inaccessible"

1.2 Instruct the Nuclear Shift Security Supervisor to activate the beepers with the appropriate code.

1.2.1 Instruct the Nuclear Shift Security Supervisor to repeat the beeper activation two (2) times, 10 minutes apart to ensure that all appropriate personnel receive the call (i.e., 11:00 original call, 11:10 first recall, 11:20 second recall).

1.3 Once the ERO Voice Mail message has been changed, the Nuclear Security Shift Supervisor, or his designee, **SHALL** activate the ERO beepers.

### NOTE:

The BVPS Radio System is the alternate to the commercial phone system for notification of offsite emergency response organizations. **EPP/IP 1.2, Attachment 3, Step 6.0** provides direction in its use.

1.4 Twenty minutes after the CAS pager has actuated, perform the following:

### NOTE:

The ERO Voice Mail System has a maximum of 4 lines available. If no lines are available, a busy signal will be received.

1.4.1 Remove the last three (3) pages of this Attachment "ERO Position List".

1.4.2 From a touch-tone phone or from a PAX phone dial 9-682-5080.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Notifications

Unit:

1/2

Level Of Use:

In-Field Reference

Revision:

28

Page Number:

34 of 86

## ATTACHMENT 7 (4 of 8)

1.4.3 When the message begins press #.

### NOTE:

Any calls responding to the beeper activation that are received by CAS or the Control Room are also to be included in the ERO Beeper Holders List.

### NOTE:

Pressing **1** will repeat the voice mail message, pressing **2** will go to the next message. **DO NOT ERASE** voice mail messages. You do not have to wait for the prompt to press **1** or **2**.

1.4.4 When prompted to enter a Mail Box Number, enter \* **1 1 3** for an Actual Event or \* **1 1 4** for an Actual Event-Site Inaccessible.

### NOTE:

ERO Call List and ERO Beeper Holders List are located on the EP Department Web Page.

1.5 On the "ERO Position List", record the callers name, ETA and if they are "fit-for-duty" in the columns beside their ERO position. If a caller reports not "fit-for-duty", write N/A in the ETA column.

### NOTE:

The first 18 positions on the "ERO Position List" is the "Minimum Staffing" for TSC activation.

1.6 When done with messages on the ERO Voice Mail System, press \* \* to exit Voice Mail.

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

35 of 86

## ATTACHMENT 7 (5 of 8)

- 1.7 Verify the first 18 positions on the "ERO Position List" are filled.

**NOTE:**

Attempts to contact designated coordinators or alternates of a position should be made using the current Emergency Response Organization Call List.

- 1.8 If no one for a designated position on the Minimum Staffing Section of the "ERO Position List" has responded, make follow-up calls to the designated coordinator **OR** alternates **UNTIL** a person qualified to fill that position has been contacted.
- 1.9 When all responses have been recorded on the "ERO Position List" **AND** the Minimum Staffing Checklist, perform the following:
- 1.9.1 Deliver copies of all paperwork to the ED.
- 1.9.2 Retain the original paperwork and forward to the Emergency Preparedness upon termination of the event.
- 1.10 When the emergency terminates or at the direction of the NSS/Emergency Director or Communications and Records Coordinator, have CAS return the ERO Voice Mail message to the **NORMAL** message.
- 1.11 In the case of an actual emergency, Control Room personnel **SHOULD NOT** erase the incoming voice mail messages. They are to be retained for permanent records of the calls received during the emergency.
- 2.0 Return to EPP/IP 1.1, Notification Attachment in progress.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

36 of 86

EPP/Implementing Procedures

EPP/IP 1.1

NOTIFICATIONS

## ERO POSITION LIST

ATTACHMENT 7 (6 of 8)

POSITION	NAME	ETA	FFD
EMERGENCY DIRECTOR			
COMMUNICATIONS & RECORDS COORDINATOR			
COMMUNICATIONS ASSISTANT			
COMMUNICATIONS ASSISTANT			
COMMUNICATIONS ASSISTANT			
EA&DP COORDINATOR			
TSC COORDINATOR			
RADCON COORDINATOR			
MAINTENANCE COORDINATOR			
ENGINEERING COORDINATOR			
OSC COORDINATOR			
OSC H.P. COORDINATOR			
COMPUTER COORDINATOR			
MECHANICAL ENGINEER			
ELECTRICAL ENGINEER			
NUCLEAR ENGINEER			
CHEMISTRY COORDINATOR			
EMERGENCY RECOVERY MANAGER			

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

37 of 86

EPP/Implementing Procedures

EPP/IP 1.1

NOTIFICATIONS

## ERO POSITION LIST

ATTACHMENT 7 (7 of 8)

POSITION	NAME	ETA	FFD
OSC COORDINATOR ASSISTANT			
OSC COORD. ASST			
OSC H.P. COORDINATOR ASSISTANT			
OSC H.P. COORDINATOR ASSISTANT			
OSC H.P. COORDINATOR ASSISTANT			
ASSISTANT TO THE EMERGENCY DIRECTOR			
TSC OPS COORDINATOR			
TSC OPS COORDINATOR ASSISTANT			
OPS COMMUNICATOR			
OPS COMMUNICATOR			
OPS COMMUNICATOR			
EA&DP ASSISTANT			
EA&DP ASSISTANT			
ENVIRONMENTAL COORDINATOR			
CHEMISTRY COORDINATOR ASSISTANT			
COMPUTER OPERATOR			
COMPUTER OPERATOR			
COMPUTER OPERATOR			
MATERIALS ENGINEER			

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

38 of 86

EPP/Implementing Procedures

EPP/IP 1.1

## NOTIFICATIONS

## ERO POSITION LIST

ATTACHMENT 7 (8 of 8)

POSITION	NAME	ETA	FFD
SYSTEM ENGINEER			
ASSISTANT TO THE EMERGENCY/RECOVERY MANAGER			
EOF OPERATIONS COORDINATOR			
EOF OPS COMMUNICATOR			
OFFSITE AGENCY LIAISON			
NUCLEAR COMMUNICATIONS MANGER			
NUCLEAR COMMUNICATIONS WRITER			
NUCLEAR COMMUNICATIONS WRITER			
NUCLEAR COMMUNICATIONS TECHNICAL ADVISOR			
JPIC MANAGER			
INFORMATION MANAGER			
INFORMATION COORDINATOR			
CHIEF COMPANY SPOKESPERSON			
TECHNICAL ADVISOR			
MEDIA RELATIONS COORDINATOR			
MEDIA RELATIONS COORDINATOR			
LOGISTICS COORDINATOR			

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

39 of 86

## ATTACHMENT 8 (1 of 7)

### UNUSUAL EVENT NOTIFICATIONS CONTROL ROOM

#### A. Onshift Communications and Records Coordinator Initial Notification Actions:

- 1.0 Obtain completed Initial Notification Form from the NSS/ED.
- 2.0 Fax the Initial Notification Form to the Offsite Agencies.
  - 2.1 Turn the external speaker located on the rear of the fax machine "on".
  - 2.2 Place completed Notification Form(s) on the fax machine (face down).

**NOTE:**

Not all voice prompts are listed here, only the key ones.

- 2.3 Press the "**HOOK**" button or, if external speaker is not functioning, lift the phone receiver.
- 2.4 Press Speed Dial number "**01**" (**EPP FAX**) on the fax machine (or enter \_\_\_\_\_).
- 2.5 At the voice prompt "ENTER THE SUBSCRIBER ID AND POUND SIGN", Press Speed Dial number "**02**" (or enter \_\_\_\_\_ #).
- 2.6 At the voice prompt "ENTER THE PASSWORD AND POUND SIGN", Press Speed Dial number "**03**" (or enter \_\_\_\_\_ #).
- 2.7 You will hear a voice prompt "LOGGING IN, PLEASE WAIT". At the voice prompt "TO SEND A MESSAGE PRESS "1", press 1 on the numeric keypad (do not wait for additional prompts).

**NOTE:**

If Speed Dial "**04**" is used, Step 2.9 does not need to be performed.

(Continued)

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>40 of 86</b>	

**ATTACHMENT 8 (2 of 7)**

**UNUSUAL EVENT NOTIFICATIONS**  
**CONTROL ROOM**

- 2.8 At the voice prompt "ENTER RECIPIENT ADDRESS NUMBER, TO FAX TO A LIST PRESS \*L", press Speed Dial number "04" (or enter \_\_\_\_\_ #).
- 2.9 At the voice prompt "WHEN FINISHED PRESS THE \* AND # KEYS", press "\*#" on the numeric keypad.
- 2.10 A voice prompt will inform you that "YOUR MESSAGE ID IS \_\_\_\_\_ AND WILL BE SENT TO LIST \_\_\_\_\_"
- 2.11 At the voice prompt "PLEASE START YOUR FAX MACHINE", press **START**.
- 2.12 Hang up the handset if used.
- 2.13 Turn "OFF" the external speaker on the rear of the fax machine, if used.
- 3.0 Activate Off-Site Agency Initial Notification Conference (INC) Call.
  - 3.1 On EP Auto-Dialer, press button marked **INC** OR dial 9# 1-330-315-4380 (or from a PAX phone, dial 9-1-330-315-4380).
  - 3.2 Interrupt the greeting by **IMMEDIATELY** entering XXXXXX.
    - 3.2.1 IF unable to activate INC, GO TO PART B of this procedure.
  - 3.3 When prompted, enter the scenario number XXXX.
  - 3.4 When prompted, verify the scenario number (9 for YES or 6 for NO).
  - 3.5 Verify, when prompted, "You will cue SCENARIO XXXX. It will now be sent. Are you sure this is what you want to do?" (9 for YES or 6 for NO).
  - 3.6 Hang up.

# Beaver Valley Power Station

Procedure Number:  
EPP/IP 1.1

Title:

Unit: 1/2      Level Of Use: In-Field Reference

Notifications

Revision: 28      Page Number: 41 of 86

## ATTACHMENT 8 (3 of 7)

### UNUSUAL EVENT NOTIFICATIONS CONTROL ROOM

- 4.0 Access Initial Notification Conference Bridge.
  - 4.1 On EP Auto-Dialer, press button marked **CONF. Bridge OR** dial 9# 724-682-1900 (**OR** from a PAX phone, dial 9-724-682-1900).
  - 4.2 When prompted, enter XXXX, then the # key.
- 5.0 Provide Initial Notification to Offsite Agencies.
  - 5.1 As each Agency enters the INC call, state the following:
    - 5.1.1 "This is \_\_\_\_\_ at Beaver Valley  
(Your Name)  
Power Station, the Code Word is \_\_\_\_\_."
    - 5.1.2 Record the contact time and the name of the agency representative.

Agency	Contact Time	Contact Name	INC	FAX	Initials
Beaver County			Y/N	Y/N	
PEMA (State of Pennsylvania)			Y/N	Y/N	
Columbiana County			Y/N	Y/N	
OEMA (State of Ohio)			Y/N	Y/N	
Hancock County			Y/N	Y/N	
WVOES* (State of West Virginia)			Y/N	Y/N	

\* Hancock County can notify WVOES (State of West Virginia) if not on the Conference Call or not able to be contacted.

- 5.2 Ask each agency if they received the Initial Notification Form FAX and if it is legible.
  - 5.2.1 IF YES, ask if there are any questions.
  - 5.2.2 STATE the Protective Action Recommendation.
  - 5.2.3 IF NO, provide information from Initial Notification Form.

(Continued)

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit:	Level Of Use:	
	1/2	In-Field Reference	
	Revision:	Page Number:	
	28	42 of 86	

**ATTACHMENT 8 (4 of 7)**

**UNUSUAL EVENT NOTIFICATIONS**  
**CONTROL ROOM**

- 5.3 **STATE** "A Follow-Up Notification will be provided as information becomes available."
- 5.4 **STATE** "Beaver Valley Power Station is exiting the Initial Notification Conference Call. Agencies may remain on the Conference Call for further discussion."
- 5.5 For any Agency(ies) **NOT** on the conference call, perform the following:
- 5.5.1 Contact each remaining Offsite Agency and,
- 5.5.2 Record the contact time and the name of the agency representative.
- 5.5.3 **STATE** "This is \_\_\_\_\_ (Your Name) \_\_\_\_\_ EPP Communicator".
- 5.5.4 **STATE** "EPP Code Word is \_\_\_\_\_."
- 5.5.5 Ask each Agency if they received the Initial Notification Form Fax and if it is legible.
- 5.5.5.1 If **YES**, ask if there are any questions.
- 5.5.5.2 **STATE** the Protective Action Recommendation.
- 5.5.5.3 If **NO**, provide information from the Initial Notification Form.
- 6.0 Notify the NSS/ED of ERO Initial Notifications completed.
- Give NSS/ED the Execution Roster qualified Report from BVERS when it arrives on Control Room FAX machine (approximately thirty minutes from ERO activation).



# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

44 of 86

## ATTACHMENT 8 (6 of 7)

### UNUSUAL EVENT NOTIFICATIONS CONTROL ROOM

- 10.0 When contacted, turnover to Communications and Records Coordinator or (Communications Assistant) in the TSC (if ERO activated).
- 11.0 Upon termination of the emergency:
  - 11.1 When directed by NSS/ED, complete the Emergency Termination Checklist, EPP/IP 1.1, Attachment 5.
  - 11.2 Collect all original/completed attachments and forward to Emergency Preparedness.

#### NOTE:

ONLY perform this part to contact Offsite Agencies individually for Initial Notification.

#### B. Individual Offsite Agency Initial Notification(s).

- 1.0 Obtain completed Initial Notification Form from the NSS/ED or Control Room FAX machine.
- 2.0 Contact each required Offsite Agency per EPP/IP 1.1, Attachment 2.
- 3.0 Record the contact time and the name of agency representative on attachment.
- 4.0 STATE "This is \_\_\_\_\_ (Your Name) \_\_\_\_\_ EPP Communicator".
- 5.0 STATE "EPP Code Word is \_\_\_\_\_."

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

**1/2**

**In-Field Reference**

Notifications

Revision:

Page Number:

**28**

**45 of 86**

## ATTACHMENT 8 (7 of 7)

### UNUSUAL EVENT NOTIFICATIONS CONTROL ROOM

- 6.0 Ask each agency if they received the Initial Notification Form FAX and if it is legible.
  - 6.1 If YES, ask if there are any questions.
  - 6.2 **STATE** the Protective Action Recommendation.
  - 6.3 If NO, provide information from Initial Notification Form.
- 7.0 Return to Part A, Step 5.0 of this attachment.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

46 of 86

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# Beaver Valley Power Station

Procedure Number:  
**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

47 of 86

## ATTACHMENT 9 (1 of 7)

### ALERT NOTIFICATIONS CONTROL ROOM

#### A. Onshift Communications and Records Coordinator Initial Notification Actions:

- 1.0 Obtain completed Initial Notification Form from the NSS/ED.
- 2.0 Fax the Initial Notification Form to the Offsite Agencies.
  - 2.1 Turn the external speaker located on the rear of the fax machine "on".
  - 2.2 Place completed Notification Form(s) on the fax machine (face down).

**NOTE:**

Not all voice prompts are listed here, only the key ones.

- 2.3 Press the "**HOOK**" button or, if external speaker is not functioning, lift the phone receiver.
- 2.4 Press Speed Dial number "**01**" (**EPP FAX**) on the fax machine (or enter \_\_\_\_\_).
- 2.5 At the voice prompt "ENTER THE SUBSCRIBER ID AND POUND SIGN", Press Speed Dial number "**02**" (or enter \_\_\_\_\_ #).
- 2.6 At the voice prompt "ENTER THE PASSWORD AND POUND SIGN", Press Speed Dial number "**03**" (or enter \_\_\_\_\_ #).
- 2.7 You will hear a voice prompt "LOGGING IN, PLEASE WAIT". At the voice prompt "TO SEND A MESSAGE PRESS "1", press 1 on the numeric keypad (do not wait for additional prompts).

**NOTE:**

If Speed Dial "**04**" is used, Step 2.9 does not need to be performed.

(Continued)

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

48 of 86

## ATTACHMENT 9 (2 of 7)

### ALERT NOTIFICATIONS CONTROL ROOM

- 2.8 At the voice prompt "ENTER RECIPIENT ADDRESS NUMBER, TO FAX TO A LIST PRESS \*L", press Speed Dial number "04" (or enter \_\_\_\_\_ #).
- 2.9 At the voice prompt "WHEN FINISHED PRESS THE \* AND # KEYS", press "\*#" on the numeric keypad.
- 2.10 A voice prompt will inform you that "YOUR MESSAGE ID IS \_\_\_\_\_ AND WILL BE SENT TO LIST \_\_\_\_\_"
- 2.11 At the voice prompt "PLEASE START YOUR FAX MACHINE", press START.
- 2.12 Hang up the handset if used.
- 2.13 Turn "OFF" the external speaker on the rear of the fax machine, if used.
- 3.0 Activate Off-Site Agency Initial Notification Conference (INC) Call.
- 3.1 On EP Auto-Dialer, press button marked INC OR dial 9# 1-330-315-4380 (or from a PAX phone, dial 9-1-330-315-4380).
- 3.2 Interrupt the greeting by IMMEDIATELY entering XXXXXX.
- 3.2.1 IF unable to activate INC, GO TO PART B of this procedure.
- 3.3 When prompted, enter the scenario number XXXX.
- 3.4 When prompted, verify the scenario number (9 for YES or 6 for NO).
- 3.5 Verify, when prompted, "You will cue SCENARIO XXXX. It will now be sent. Are you sure this is what you want to do?" (9 for YES or 6 for NO).
- 3.6 Hang up.

# Beaver Valley Power Station

Procedure Number:  
EPP/IP 1.1

Title:

Unit: 1/2  
Level Of Use: In-Field Reference

Notifications

Revision: 28  
Page Number: 49 of 86

## ATTACHMENT 9 (3 of 7)

### ALERT NOTIFICATIONS CONTROL ROOM

- 4.0 Access Initial Notification Conference Bridge.
  - 4.1 On EP Auto-Dialer, press button marked **CONF. Bridge OR** dial 9# 724-682-1900 (**OR** from a PAX phone, dial 9-724-682-1900).
  - 4.2 When prompted, enter XXXX, then the # key.
- 5.0 Provide Initial Notification to Offsite Agencies.
  - 5.1 As each Agency enters the INC call, state the following:
    - 5.1.1 "This is \_\_\_\_\_ at Beaver Valley  
(Your Name)  
Power Station, the Code Word is \_\_\_\_\_."
    - 5.1.2 Record the contact time and the name of the agency representative.

Agency	Contact Time	Contact Name	INC	FAX	Initials
Beaver County			Y/N	Y/N	
PEMA (State of Pennsylvania)			Y/N	Y/N	
Columbiana County			Y/N	Y/N	
OEMA (State of Ohio)			Y/N	Y/N	
Hancock County			Y/N	Y/N	
WVOES* (State of West Virginia)			Y/N	Y/N	

\* Hancock County can notify WVOES (State of West Virginia) if not on the Conference Call or not able to be contacted.

- 5.2 Ask each agency if they received the Initial Notification Form FAX and if it is legible.
  - 5.2.1 IF YES, ask if there are any questions.
  - 5.2.2 STATE the Protective Action Recommendation.
  - 5.2.3 IF NO, provide information from Initial Notification Form.

(Continued)

# Beaver Valley Power Station

Procedure Number:  
**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

50 of 86

## ATTACHMENT 9 (4 of 7)

### ALERT NOTIFICATIONS CONTROL ROOM

- 5.3 STATE "A Follow-Up Notification will be provided as information becomes available."
- 5.4 STATE "Beaver Valley Power Station is exiting the Initial Notification Conference Call. Agencies may remain on the Conference Call for further discussion."
- 5.5 For any Agency(ies) not on the conference call, perform the following:
- 5.5.1 Contact each remaining Offsite Agency and,
  - 5.5.2 Record the contact time and the name of the agency representative.
  - 5.5.3 STATE "This is \_\_\_\_ (Your Name) \_\_\_\_\_ EPP Communicator".
  - 5.5.4 STATE "EPP Code Word is \_\_\_\_\_."
  - 5.5.5 Ask each Agency if they received the Initial Notification Form Fax and if it is legible.
    - 5.5.5.1 If YES, ask if there are any questions.
    - 5.5.5.2 STATE the Protective Action Recommendation.
    - 5.5.5.3 If NO, provide information from the Initial Notification Form.
- 6.0 Notify the NSS/ED of ERO Initial Notifications completed.
- Give NSS/ED the Execution Roster qualified Report from BVERS when it arrives on Control Room FAX machine (approximately thirty minutes from ERO activation).

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

51 of 86

## ATTACHMENT 9 (5 of 7)

### ALERT NOTIFICATIONS CONTROL ROOM

- 7.0 Document contact of the NRC within one (1) hour of the event declaration on EPP/IP 1.1, Attachment 2.
- 8.0 Contact each of the remaining Personnel/Organizations, as required, per EPP/IP 1.1, Attachment 2
- 9.0 Conduct Follow-Up Notifications.
- 9.1 Obtain a completed Follow-Up Notification Form from the NSS/ED.
- 9.2 Fax the Follow-Up Notification Form to the Offsite Agencies using the instructions from Step 2.0.
- 9.3 20 minutes after FAX was sent, or after return FAX received in the Control Room, notify the six (6) Offsite Agencies INDIVIDUALLY using EPP/IP 1.1, Attachment 2 by:
- 9.3.1 STATE "This is \_\_\_\_\_ (Your Name) EPP Communicator".
- 9.3.2 STATE "The Code Word is \_\_\_\_\_."
- 9.3.3 Record the contact time and the name of the agency representative on the Follow-Up Notification part of EPP/IP 1.1, Attachment 2.
- 9.3.4 Ask agency if they received the Follow-Up Notification #XX FAX and if it is legible.
- 9.3.5 If YES, ask if any questions.
- 9.3.6 If NO, provide information from the Follow-Up Notification Form.
- 10.0 When contacted, turnover to Communications and Records Coordinator or (Communications Assistant) in the TSC (if ERO activated).

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

52 of 86

## ATTACHMENT 9 (6 of 7)

### ALERT NOTIFICATIONS CONTROL ROOM

11.0 Upon termination of the emergency:

11.1 When directed by NSS/ED, complete the Emergency Termination Checklist, EPP/IP 1.1, Attachment 5.

11.2 Collect all original/completed attachments and forward to Emergency Preparedness (BV-T).

#### NOTE:

ONLY perform this part to contact Offsite Agencies individually for Initial Notification.

B. Individual Offsite Agency Initial Notification(s).

1.0 Obtain completed Initial Notification Form from the NSS/ED or Control Room FAX machine.

2.0 Contact each required Offsite Agency per EPP/IP 1.1, Attachment 2.

3.0 Record the contact time and the name of agency representative on attachment.

4.0 STATE "This is \_\_\_\_\_ (Your Name) \_\_\_\_\_ EPP Communicator".

5.0 STATE "EPP Code Word is \_\_\_\_\_."

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>53 of 86</b>	

**ATTACHMENT 9 (7 of 7)**

**ALERT NOTIFICATIONS**  
**CONTROL ROOM**

- 6.0 Ask each agency if they received the Initial Notification Form FAX and if it is legible.
  - 6.1 If YES, ask if there are any questions.
  - 6.2 **STATE** the Protective Action Recommendation.
  - 6.3 If NO, provide information from Initial Notification Form.
- 7.0 Return to Part A, Step 5.0 of this attachment.

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

**1/2**

Level Of Use:

**In-Field Reference**

Notifications

Revision:

**28**

Page Number:

**54 of 86**

**INTENTIONALLY BLANK**

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

55 of 86

## ATTACHMENT 10 (1 of 7)

### SITE AREA EMERGENCY NOTIFICATIONS CONTROL ROOM

#### A. Onshift Communications and Records Coordinator Initial Notification Actions:

- 1.0 Obtain completed Initial Notification Form from the NSS/ED.
- 2.0 Fax the Initial Notification Form to the Offsite Agencies.
  - 2.1 Turn the external speaker located on the rear of the fax machine "on".
  - 2.2 Place completed Notification Form(s) on the fax machine (face down).

**NOTE:**

Not all voice prompts are listed here, only the key ones.

- 2.3 Press the "HOOK" button or, if external speaker is not functioning, lift the phone receiver.
- 2.4 Press Speed Dial number "01" (EPP FAX) on the fax machine (or enter \_\_\_\_\_).
- 2.5 At the voice prompt "ENTER THE SUBSCRIBER ID AND POUND SIGN", Press Speed Dial number "02" (or enter \_\_\_\_\_ #).
- 2.6 At the voice prompt "ENTER THE PASSWORD AND POUND SIGN", Press Speed Dial number "03" (or enter \_\_\_\_\_ #).
- 2.7 You will hear a voice prompt "LOGGING IN, PLEASE WAIT". At the voice prompt "TO SEND A MESSAGE PRESS "1", press 1 on the numeric keypad (do not wait for additional prompts).

**NOTE:**

If Speed Dial "04" is used, Step 2.9 does not need to be performed.

(Continued)

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

56 of 86

## ATTACHMENT 10 (2 of 7)

### SITE AREA EMERGENCY NOTIFICATIONS CONTROL ROOM

- 2.8 At the voice prompt "ENTER RECIPIENT ADDRESS NUMBER, TO FAX TO A LIST PRESS \*L", press Speed Dial number "04" (or enter \_\_\_\_\_ #).
- 2.9 At the voice prompt "WHEN FINISHED PRESS THE \* AND # KEYS", press "\*#" on the numeric keypad.
- 2.10 A voice prompt will inform you that "YOUR MESSAGE ID IS \_\_\_\_\_ AND WILL BE SENT TO LIST \_\_\_\_\_"
- 2.11 At the voice prompt "PLEASE START YOUR FAX MACHINE", press **START**.
- 2.12 Hang up the handset if used.
- 2.13 Turn "OFF" the external speaker on the rear of the fax machine, if used.
- 3.0 Activate Off-Site Agency Initial Notification Conference (INC) Call.
- 3.1 On EP Auto-Dialer, press button marked **INC OR** dial 9# 1-330-315-4380 (or from a PAX phone, dial 9-1-330-315-4380).
- 3.2 Interrupt the greeting by **IMMEDIATELY** entering XXXXXX.
- 3.2.1 **IF** unable to activate INC, GO TO PART B of this procedure.
- 3.3 When prompted, enter the scenario number XXXX.
- 3.4 When prompted, verify the scenario number (9 for YES or 6 for NO).
- 3.5 Verify, when prompted, "You will cue SCENARIO XXXX. It will now be sent. Are you sure this is what you want to do?" (9 for YES or 6 for NO).
- 3.6 Hang up.

# Beaver Valley Power Station

Procedure Number:  
EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

57 of 86

## ATTACHMENT 10 (3 of 7)

### SITE AREA EMERGENCY NOTIFICATIONS CONTROL ROOM

4.0 Access Initial Notification Conference Bridge.

4.1 On EP Auto-Dialer, press button marked **CONF. Bridge OR** dial 9# 724-682-1900 (OR from a PAX phone, dial 9-724-682-1900).

4.2 When prompted, enter XXXX, then the # key.

5.0 Provide Initial Notification to Offsite Agencies.

5.1 As each Agency enters the INC call, state the following:

5.1.1 "This is \_\_\_\_\_ at Beaver Valley  
(Your Name)

Power Station, the Code Word is \_\_\_\_\_."

5.1.2 Record the contact time and the name of the agency representative.

Agency	Contact Time	Contact Name	INC	FAX	Initials
Beaver County			Y/N	Y/N	
PEMA (State of Pennsylvania)			Y/N	Y/N	
Columbiana County			Y/N	Y/N	
OEMA (State of Ohio)			Y/N	Y/N	
Hancock County			Y/N	Y/N	
WVOES* (State of West Virginia)			Y/N	Y/N	

\* Hancock County can notify WVOES (State of West Virginia) if not on the Conference Call or not able to be contacted.

5.2 Ask each agency if they received the Initial Notification Form FAX and if it is legible.

5.2.1 IF YES, ask if there are any questions.

5.2.2 STATE the Protective Action Recommendation.

5.2.3 IF NO, provide information from Initial Notification Form.

(Continued)

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>58 of 86</b>	

**ATTACHMENT 10 (4 of 7)**

**SITE AREA EMERGENCY NOTIFICATIONS**  
**CONTROL ROOM**

- 5.3 **STATE** "A Follow-Up Notification will be provided as information becomes available."
- 5.4 **STATE** "Beaver Valley Power Station is exiting the Initial Notification Conference Call. Agencies may remain on the Conference Call for further discussion."
- 5.5 For any Agency(ies) not on the conference call, perform the following:
- 5.5.1 Contact each remaining Offsite Agency and,
- 5.5.2 Record the contact time and the name of the agency representative.
- 5.5.3 **STATE** "This is \_\_\_\_\_ (Your Name) \_\_\_\_\_ EPP Communicator".
- 5.5.4 **STATE** "EPP Code Word is \_\_\_\_\_."
- 5.5.5 Ask each Agency if they received the Initial Notification Form Fax and if it is legible.
- 5.5.5.1 If **YES**, ask if there are any questions.
- 5.5.5.2 **STATE** the Protective Action Recommendation.
- 5.5.5.3 If **NO**, provide information from the Initial Notification Form.
- 6.0 Notify the NSS/ED of ERO Initial Notifications completed.
- Give NSS/ED the Execution Roster qualified Report from BVERS when it arrives on Control Room FAX machine (approximately thirty minutes from ERO activation).

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

59 of 86

## ATTACHMENT 10 (5 of 7)

### SITE AREA EMERGENCY NOTIFICATIONS CONTROL ROOM

- 7.0 Document contact of the NRC within one (1) hour of the event declaration on EPP/IP 1.1, Attachment 2.
- 8.0 Contact each of the remaining Personnel/Organizations, as required, per EPP/IP 1.1, Attachment 2
- 9.0 Conduct Follow-Up Notifications.
- 9.1 Obtain a completed Follow-Up Notification Form from the NSS/ED.
- 9.2 Fax the Follow-Up Notification Form to the Offsite Agencies using the instructions from Step 2.0.
- 9.3 20 minutes after FAX was sent, or after return FAX received in the Control Room, notify the six (6) Offsite Agencies INDIVIDUALLY using EPP/IP 1.1, Attachment 2 by:
- 9.3.1 STATE "This is \_\_\_\_\_ (Your Name) EPP Communicator".
- 9.3.2 STATE "The Code Word is \_\_\_\_\_."
- 9.3.3 Record the contact time and the name of the agency representative on the Follow-Up Notification part of EPP/IP 1.1, Attachment 2.
- 9.3.4 Ask agency if they received the Follow-Up Notification #XX FAX and if it is legible.
- 9.3.5 If YES, ask if any questions.
- 9.3.6 If NO, provide information from the Follow-Up Notification Form.
- 10.0 When contacted, turnover to Communications and Records Coordinator or (Communications Assistant) in the TSC (if ERO activated).

# Beaver Valley Power Station

Procedure Number:  
EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

60 of 86

## ATTACHMENT 10 (6 of 7)

### SITE AREA EMERGENCY NOTIFICATIONS CONTROL ROOM

- 11.0 Upon termination of the emergency:
  - 11.1 When directed by NSS/ED, complete the Emergency Termination Checklist, EPP/IP 1.1, Attachment 5.
  - 11.2 Collect all original/completed attachments and forward to Emergency Preparedness (BV-T).

#### NOTE:

ONLY perform this part to contact Offsite Agencies individually for Initial Notification.

#### B. Individual Offsite Agency Initial Notification(s).

- 1.0 Obtain completed Initial Notification Form from the NSS/ED or Control Room FAX machine.
- 2.0 Contact each required Offsite Agency per EPP/IP 1.1, Attachment 2.
- 3.0 Record the contact time and the name of agency representative on attachment.
- 4.0 STATE "This is \_\_\_\_\_ (Your Name) \_\_\_\_\_ EPP Communicator".
- 5.0 STATE "EPP Code Word is \_\_\_\_\_."

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

61 of 86

## ATTACHMENT 10 (7 of 7)

### SITE AREA EMERGENCY NOTIFICATIONS CONTROL ROOM

- 6.0 Ask each agency if they received the Initial Notification Form FAX and if it is legible.
  - 6.1 If **YES**, ask if there are any questions.
  - 6.2 **STATE** the Protective Action Recommendation.
  - 6.3 If **NO**, provide information from Initial Notification Form.
- 7.0 Return to Part A, Step 5.0 of this attachment.

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Notifications

Unit:

**1/2**

Level Of Use:

**In-Field Reference**

Revision:

**28**

Page Number:

**62 of 86**

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# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

63 of 86

## ATTACHMENT 11 (1 of 7)

### GENERAL EMERGENCY NOTIFICATIONS CONTROL ROOM

#### A. Onshift Communications and Records Coordinator Initial Notification Actions:

- 1.0 Obtain completed Initial Notification Form from the NSS/ED.
- 2.0 Fax the Initial Notification Form to the Offsite Agencies.
  - 2.1 Turn the external speaker located on the rear of the fax machine "on".
  - 2.2 Place completed Notification Form(s) on the fax machine (face down).

**NOTE:**

Not all voice prompts are listed here, only the key ones.

- 2.3 Press the "HOOK" button or, if external speaker is not functioning, lift the phone receiver.
- 2.4 Press Speed Dial number "01" (EPP FAX) on the fax machine (or enter \_\_\_\_\_).
- 2.5 At the voice prompt "ENTER THE SUBSCRIBER ID AND POUND SIGN", Press Speed Dial number "02" (or enter \_\_\_\_\_ #).
- 2.6 At the voice prompt "ENTER THE PASSWORD AND POUND SIGN", Press Speed Dial number "03" (or enter \_\_\_\_\_ #).
- 2.7 You will hear a voice prompt "LOGGING IN, PLEASE WAIT". At the voice prompt "TO SEND A MESSAGE PRESS "1", press 1 on the numeric keypad (do not wait for additional prompts).

**NOTE:**

If Speed Dial "04" is used, Step 2.9 does not need to be performed.

(Continued)

# Beaver Valley Power Station

Procedure Number:  
EPP/IP 1.1

Title:

Unit:  
1/2

Level Of Use:  
In-Field Reference

Notifications

Revision:  
28

Page Number:  
64 of 86

## ATTACHMENT 11 (2 of 7)

### GENERAL EMERGENCY NOTIFICATIONS CONTROL ROOM

- 2.8 At the voice prompt "ENTER RECIPIENT ADDRESS NUMBER, TO FAX TO A LIST PRESS \*L", press Speed Dial number "04" (or enter \_\_\_\_\_ #).
- 2.9 At the voice prompt "WHEN FINISHED PRESS THE \* AND # KEYS", press "\*#" on the numeric keypad.
- 2.10 A voice prompt will inform you that "YOUR MESSAGE ID IS \_\_\_\_\_ AND WILL BE SENT TO LIST \_\_\_\_\_".
- 2.11 At the voice prompt "PLEASE START YOUR FAX MACHINE", press START.
- 2.12 Hang up the handset if used.
- 2.13 Turn "OFF" the external speaker on the rear of the fax machine, if used.
- 3.0 Activate Off-Site Agency Initial Notification Conference (INC) Call.
  - 3.1 On EP Auto-Dialer, press button marked INC OR dial 9# 1-330-315-4380 (or from a PAX phone, dial 9-1-330-315-4380).
  - 3.2 Interrupt the greeting by IMMEDIATELY entering XXXXXX.
    - 3.2.1 IF unable to activate INC, GO TO PART B of this procedure.
  - 3.3 When prompted, enter the scenario number XXXX.
  - 3.4 When prompted, verify the scenario number (9 for YES or 6 for NO).
  - 3.5 Verify, when prompted, "You will cue SCENARIO XXXX. It will now be sent. Are you sure this is what you want to do?" (9 for YES or 6 for NO).
  - 3.6 Hang up.

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

65 of 86

## ATTACHMENT 11 (3 of 7)

### GENERAL EMERGENCY NOTIFICATIONS CONTROL ROOM

- 4.0 Access Initial Notification Conference Bridge.
  - 4.1 On EP Auto-Dialer, press button marked **CONF. Bridge OR** dial 9# 724-682-1900 (**OR** from a PAX phone, dial 9-724-682-1900).
  - 4.2 When prompted, enter XXXX, then the # key.
- 5.0 Provide Initial Notification to Offsite Agencies.
  - 5.1 As each Agency enters the INC call, state the following:
    - 5.1.1 "This is \_\_\_\_\_ at Beaver Valley  
(Your Name)  
Power Station, the Code Word is \_\_\_\_\_."
    - 5.1.2 Record the contact time and the name of the agency representative.

Agency	Contact Time	Contact Name	INC	FAX	Initials
Beaver County			Y/N	Y/N	
PEMA (State of Pennsylvania)			Y/N	Y/N	
Columbiana County			Y/N	Y/N	
OEMA (State of Ohio)			Y/N	Y/N	
Hancock County			Y/N	Y/N	
WVOES* (State of West Virginia)			Y/N	Y/N	

\* Hancock County can notify WVOES (State of West Virginia) if not on the Conference Call or not able to be contacted.

- 5.2 Ask each agency if they received the Initial Notification Form FAX and if it is legible.
  - 5.2.1 **IF YES**, ask if there are any questions.
  - 5.2.2 **STATE** the Protective Action Recommendation.
  - 5.2.3 **IF NO**, provide information from Initial Notification Form.

(Continued)

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

66 of 86

## ATTACHMENT 11 (4 of 7)

### GENERAL EMERGENCY NOTIFICATIONS CONTROL ROOM

- 5.3 STATE "A Follow-Up Notification will be provided as information becomes available."
- 5.4 STATE "Beaver Valley Power Station is exiting the Initial Notification Conference Call. Agencies may remain on the Conference Call for further discussion."
- 5.5 For any Agency(ies) not on the conference call, perform the following:
- 5.5.1 Contact each remaining Offsite Agency and,
- 5.5.2 Record the contact time and the name of the agency representative.
- 5.5.3 STATE "This is \_\_\_\_\_ (Your Name) EPP Communicator".
- 5.5.4 STATE "EPP Code Word is \_\_\_\_\_."
- 5.5.5 Ask each Agency if they received the Initial Notification Form Fax and if it is legible.
- 5.5.5.1 If YES, ask if there are any questions.
- 5.5.5.2 STATE the Protective Action Recommendation.
- 5.5.5.3 If NO, provide information from the Initial Notification Form.
- 6.0 Notify the NSS/ED of ERO Initial Notifications completed.
- Give NSS/ED the Execution Roster qualified Report from BVERS when it arrives on Control Room FAX machine (approximately thirty minutes from ERO activation).

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

67 of 86

## ATTACHMENT 11 (5 of 7)

### GENERAL EMERGENCY NOTIFICATIONS CONTROL ROOM

- 7.0 Document contact of the NRC within one (1) hour of the event declaration on EPP/IP 1.1, Attachment 2.
- 8.0 Contact each of the remaining Personnel/Organizations, as required, per EPP/IP 1.1, Attachment 2
- 9.0 Conduct Follow-Up Notifications.
- 9.1 Obtain a completed Follow-Up Notification Form from the NSS/ED.
- 9.2 Fax the Follow-Up Notification Form to the Offsite Agencies using the instructions from Step 2.0.
- 9.3 20 minutes after FAX was sent, or after return FAX received in the Control Room, notify the six (6) Offsite Agencies INDIVIDUALLY using EPP/IP 1.1, Attachment 2 by:
- 9.3.1 STATE "This is \_\_\_\_\_ (Your Name) \_\_\_\_\_ EPP Communicator".
- 9.3.2 STATE "The Code Word is \_\_\_\_\_."
- 9.3.3 Record the contact time and the name of the agency representative on the Follow-Up Notification part of EPP/IP 1.1, Attachment 2.
- 9.3.4 Ask agency if they received the Follow-Up Notification #XX FAX and if it is legible.
- 9.3.5 If YES, ask if any questions.
- 9.3.6 If NO, provide information from the Follow-Up Notification Form.
- 10.0 When contacted, turnover to Communications and Records Coordinator or (Communications Assistant) in the TSC (if ERO activated).

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit:	Level Of Use:	
	1/2	In-Field Reference	
	Revision:	Page Number:	
	28	68 of 86	

**ATTACHMENT 11 (6 of 7)**

**GENERAL EMERGENCY NOTIFICATIONS**  
**CONTROL ROOM**

- 11.0 Upon termination of the emergency:
  - 11.1 When directed by NSS/ED, complete the Emergency Termination Checklist, EPP/IP 1.1, Attachment 5.
  - 11.2 Collect all original/completed attachments and forward to Emergency Preparedness (BV-T).

**NOTE:**

ONLY perform this part to contact Offsite Agencies individually for Initial Notification.

**B. Individual Offsite Agency Initial Notification(s).**

- 1.0 Obtain completed Initial Notification Form from the NSS/ED or Control Room FAX machine.
- 2.0 Contact each required Offsite Agency per EPP/IP 1.1, Attachment 2.
- 3.0 Record the contact time and the name of agency representative on attachment.
- 4.0 **STATE** "This is \_\_\_\_\_ (Your Name) \_\_\_\_\_ EPP Communicator".
- 5.0 **STATE** "EPP Code Word is \_\_\_\_\_."

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

69 of 86

## ATTACHMENT 11 (7 of 7)

### GENERAL EMERGENCY NOTIFICATIONS CONTROL ROOM

- 6.0 Ask each agency if they received the Initial Notification Form FAX and if it is legible.
  - 6.1 If YES, ask if there are any questions.
  - 6.2 STATE the Protective Action Recommendation.
  - 6.3 If NO, provide information from Initial Notification Form.
- 7.0 Return to Part A, Step 5.0 of this attachment.

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

**1/2**

Level Of Use:

**In-Field Reference**

Notifications

Revision:

**28**

Page Number:

**70 of 86**

**INTENTIONALLY BLANK**

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

71 of 86

## ATTACHMENT 12 (1 of 7)

### TSC EVENT NOTIFICATION

#### A. INSTRUCTIONS

##### 1.0 Communications and Records Coordinator/Communications Assistant Actions:

1.1 Obtain copies of the forms faxed to the TSC by the Control Room from the TSC Fax machine located on the Communicator's desk.

1.2 Contact the Control Room for turnover.

1.3 Make copies of previously complete Initial and Follow-Up Notification Forms and distribute to the following:

##### 1.3.1 TSC (9):

- Communications Assts. (3)
- Communications and Records Coord.
- Emergency Director
- OPS Coordinator
- OPS Communicator (Red Phone)
- OEMA Liaison Communicator
- NRC (Place in NRC cubicle)

##### 1.3.2 EOF (7):

- Emergency/Recovery Manager
- Offsite Agency Liaison
- NRC
- DEP/BRP
- PEMA
- OEMA
- WVOES

1.4 Obtain the EPP Notification Books from the Communicators desk, if not already done.

1.5 Continue with Notifications from the point the Onshift Communications and Records Coordinator stopped.

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>72 of 86</b>	

**ATTACHMENT 12 (2 of 7)**

**TSC EVENT NOTIFICATION**

**2.0 Initial Notifications, Communications and Records Coordinator Actions:**

**NOTE:**

Initial Notifications are to be made to the first six (6) listed Agencies on the **EMERGENCY NOTIFICATIONS CALL-LIST, EPP/IP 1.1, Attachment 2** and **MUST** be made within 15 minutes of the event declaration. Subsequent notifications **MUST** still be made.

**NOTE:**

The BVPS Radio System is the alternate to the commercial phone system for notifications to offsite emergency response organizations. **EPP/IP 1.2, Attachment 3, Step 6.0** provides direction in its use.

**NOTE:**

If an emergency is reclassified and upgraded during the Follow-Up Notification process, the Communications and Records Coordinator **SHALL** terminate the notification in progress and begin the upgraded Initial Notification process again per appropriate Attachment. If the Initial Notification Conference (INC) call is in progress, then the upgraded notifications **SHALL** be provided at this time. The 15-minute clock for the notifications will restart at the time of the upgraded declaration.

**2.1 Provide the Emergency Director with the following:**

- Initial Notification Form (EPP/IP 1.1, Attachment 1)
- Follow-Up Notification Form (EPP/IP 1.1, Attachment 3)

**2.1.1 Provide the NRC Worksheet to the TSC Ops Coordinator for completion.**

**2.2 Obtain completed INITIAL NOTIFICATION FORM from the Emergency Director.**

**2.3 Review INITIAL NOTIFICATION FORM for all lines completed.**

# Beaver Valley Power Station

Procedure Number:  
**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

73 of 86

## ATTACHMENT 12 (3 of 7)

### TSC EVENT NOTIFICATION

- 2.4 Make three (3) copies of completed **INITIAL NOTIFICATION FORM**.
- 2.4.1 Provide copies of **INITIAL NOTIFICATION FORM** to Communications Assistants.
- 2.5 Remove the **NOTIFICATION FORM FAXING INSTRUCTIONS** from the Communications and Records Coordinator's EPP Notification Book.
- 2.5.1 Fax the **INITIAL NOTIFICATION FORM** following the steps on the **NOTIFICATION FORM FAXING INSTRUCTIONS** (Attachment 13 of this procedure).
- 2.6 Initiate the INC call, per Attachment 15.
- 2.7 Instruct another Communications Assistant to dial the INC, on another phone, to assist in monitoring the INC call.
- 2.8 As each Agency enters the INC call, state the following:
- 2.8.1 "This is \_\_\_\_\_ at Beaver Valley  
(Your Name)  
Power Station, the Code Word is \_\_\_\_\_.
- 2.8.2 Conduct a roll-call using EPP/IP 1.1, Attachment 2, Page 2, for Agencies 1-6 documenting names and contact time.
- 2.8.3 Verify from each Agency receipt of the appropriate Initial Notification Fax (i.e., Unusual Event, Alert, Site Area or General Emergency) and that the Fax is legible.
- IF YES, ask if any Agency has questions regarding the information provided on the fax. Inform the Agency that a Follow-Up Notification will be relayed as information becomes available.
  - STATE the Protective Action Recommendation.
  - IF NO, provide information from the Initial Notification Form AND inform the Agency that a Follow-Up Notification will be relayed as information becomes available.

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>74 of 86</b>	

**ATTACHMENT 12 (4 of 7)**

**TSC EVENT NOTIFICATION**

- 2.8.4 STATE "A Follow-Up Notification will be provided as information becomes available."
- 2.8.5 STATE "Beaver Valley Power Station is exiting the Initial Notification Conference Call. Agencies may remain on the Conference Call for further discussion."
- 2.8.6 If a party cannot be contacted in a reasonable period of time, bypass that party and proceed down the list. After other required notifications are complete, re-attempt to contact any bypassed parties. Every effort **MUST** be made to contact the organizations listed in Attachment 2 and all attempts **MUST** be documented.
- 2.9 For any Agency(ies) not on the conference call, perform the following:
  - 2.9.1 Contact each remaining Offsite Agency and,
  - 2.9.2 Record the contact time and the name of the agency representative.
  - 2.9.3 STATE "This is \_\_\_\_\_ (Your Name) \_\_\_\_\_ EPP Communicator".
  - 2.9.4 STATE "EPP Code Word is \_\_\_\_\_."
  - 2.9.5 Ask each Agency if they received the Initial Notification Form Fax and if it is legible.
    - 2.9.5.1 If **YES**, ask if there are any questions.
    - 2.9.5.2 STATE the Protective Action Recommendation.
    - 2.9.5.3 If **NO**, provide information from the Initial Notification Form.
- 2.10 Notify the Emergency Director when the Initial Notification calls to the first six (6) Agencies have been made.
- 2.11 Verify the Ops Coordinator has given the **NRC WORKSHEET** to the OPS Communicator manning the NRC phone for relaying information. Log time contacted on EPP/IP 1.1, Attachment 2.

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>75 of 86</b>	

**ATTACHMENT 12 (5 of 7)**

**TSC EVENT NOTIFICATION**

2.12 Send Lotus Notes Message to ERO pagers per Attachment 16, this procedure.

2.13 Distribute copies of the current Initial Notification Form per Step 1.3

3.0 Follow-Up Notifications

**NOTE:**

The follow-up notification provides technical information to those qualified to use the data and serves as a means to verify the authenticity of an emergency notification. The **CODEWORD** also provides verification.

**NOTE:**

The Follow-Up Notification Form should be updated periodically (i.e., 2 times per shift) or at the discretion of the Emergency Director.

3.1 Obtain information for the **FOLLOW-UP NOTIFICATION FORM** (EPP/IP 1.1, Attachment 3).

3.2 Complete the **FOLLOW-UP NOTIFICATION FORM** and make three (3) copies to give to the Communications Assistants.

3.3 Fax the **FOLLOW-UP NOTIFICATION FORM** following the instructions on the **NOTIFICATION FORM FAXING INSTRUCTIONS** (Attachment 13 of this procedure).

**NOTE:**

If an emergency is reclassified and upgraded during the Follow-Up Notification process, the Communications and Records Coordinator **SHALL** terminate the notification in progress and begin the upgraded Initial Notification process again per appropriate Attachment. If the Initial Notification Conference (INC) call is in progress, then the upgraded notifications **SHALL** be provided at this time. The 15-minute clock for the notifications will restart at the time of the upgraded declaration.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

1/2

Level Of Use:

In-Field Reference

Notifications

Revision:

28

Page Number:

76 of 86

## ATTACHMENT 12 (6 of 7)

### TSC EVENT NOTIFICATION

#### NOTE:

The INC call **SHALL** not be used for Follow-Up Notifications. Offsite Agencies **SHALL** be called individually.

- 3.4 Upon receiving the TSC copy of the Follow-Up Notification Fax, or approximately 20 minutes after sending the Fax, begin Follow-Up Notifications to the first six (6) listed Agencies using EPP/IP 1.1, Attachment 2 **"EMERGENCY NOTIFICATION CALL-LIST"**.

3.4.1 Begin call by stating "This is (Your Name) \_\_\_\_\_ at Beaver Valley Power Station, the Code Word is \_\_\_\_\_ This is a Follow-Up Notification verification call."

3.4.2 Record name and time of contact on EPP/IP 1.1, Attachment 2.

#### NOTE:

The Follow-Up Notifications # (Number) is Entered in the lower right corner of Attachment 3, page 1 of 5.

3.4.3 Verify receipt of Follow-Up Notification # XX Fax and that the Fax is legible.

- IF YES, ask if there are any questions.
- IF NO, provide information from the Follow-Up Notification Form.

3.4.4 If a party cannot be contacted in a reasonable period of time, bypass that party and proceed down the list. After other required notifications are complete, re-attempt to contact any bypassed parties. Every effort must be made to contact the organizations listed in Attachment 2 and all attempts must be documented.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

77 of 86

ATTACHMENT 12 (7 of 7)

## TSC EVENT NOTIFICATION

### 4.0 Subsequent Notifications

4.1 If an emergency is escalated in classification, the **INITIAL NOTIFICATION FORM** is used and notifications are made in the same manner specified in Steps 2 and 3 of this procedure.

4.1.1 If an emergency is escalated in classification, and the INC call is ongoing, then confirm the upgraded receipt of the Initial Notification Fax on the current INC call.

4.1.2 If an Agency has not received the upgraded Fax, provide the information.

### 5.0 Site Assembly and Personnel Accountability

5.1 Provide information to Near-Site Assembly Area Coordinators per EPP/IP 3.2, Attachment 7.

### 6.0 Termination

6.1 Complete the **EMERGENCY TERMINATION CHECKLIST** (EPP/IP 1.1, Attachment 5).

6.2 Collect all originals of the completed attachments and forward to Emergency Preparedness.

## **B. FINAL CONDITIONS**

1.0 Use of this procedure **SHALL** be terminated when the emergency situation is corrected or when directed by the Emergency Director.

2.0 Attachment 5 (Emergency Termination Checklist) is to be completed for termination calls to offsite agencies for all emergency events.

### **NOTE:**

\*

Upon termination of the emergency situation and the subsequent termination of this IP, All originals of completed Attachments **SHALL** be forwarded to Emergency Preparedness.

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

78 of 86

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# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

79 of 86

## ATTACHMENT 13 (1 of 1)

### NOTIFICATION FORM FAXING INSTRUCTIONS EXAMPLE

- 1.0 Turn external speaker located on rear of fax machine to "ON".
- 2.0 Place completed Notification Forms on the Fax Machine (face down) and perform the following steps:

**NOTE:**

Not all voice prompts are listed here, only the key ones.

- 3.0 Press the "HOOK" button or, if the external speaker is not functioning, lift the phone receiver.
- 4.0 Press Speed Dial number "01" on the Fax Machine labeled "EPP FAX", (or enter \_\_\_\_\_). This will connect you to a voice prompt which states "WELCOME TO AT&T'S ENHANCED FAX".
- 5.0 At the voice prompt "ENTER THE SUBSCRIBER ID AND POUND SIGN", Press Speed Dial number "02", (or enter \_\_\_\_\_).
- 6.0 At the voice prompt "ENTER THE PASSWORD AND POUND SIGN", Press Speed Dial number "03", (or enter \_\_\_\_\_).
- 7.0 You will hear a voice prompt "LOGGING IN, PLEASE WAIT". At the voice prompt "TO SEND MESSAGE, PRESS 1". **PRESS 1** on the Fax number keys (do not wait for additional prompts).

**NOTE:**

If Speed Dial 04 is used, Step 9.0 does not need to be performed.

- 8.0 At the prompt "ENTER RECIPIENT ADDRESS NUMBER, TO ADDRESS TO A LIST PRESS \*L ", Press Speed Dial Number ("04") or enter (\_\_\_\_\_).
- 9.0 At the voice prompt "WHEN FINISHED PRESS THE "\*" AND "#" KEYS", press "\*#" buttons on the Fax number keys.
- 10.0 A voice prompt will inform you that "YOUR MESSAGE ID IS XXXX AND WILL BE SENT TO XXXX RECIPIENTS".
- 11.0 At the voice prompt, "PLEASE START YOUR FAX MACHINE", press the Fax "START " button.
- 12.0 Hang up the phone if used.
- 13.0 Return to procedure/Attachment step in progress.

# Beaver Valley Power Station

Procedure Number:  
**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

**1/2**

**In-Field Reference**

Notifications

Revision:

Page Number:

**28**

**80 of 86**

**INTENTIONALLY BLANK**

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

81 of 86

**ATTACHMENT 14 (1 of 2)**

## **ERO BEEPER ACTIVATION INSTRUCTIONS (EXAMPLE)**

**CHECK**

- 1.0 A SRO (from the unaffected Unit) **SHALL** complete the blanks below and notify the Emergency Response Organization ERO.

This is \_\_\_\_\_ at Beaver Valley  
(Your Name)

Power Station. At \_\_\_\_\_ (time) hours, Unit \_\_\_\_\_ has

Declared an \_\_\_\_\_ due to:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- a. Report to your emergency facility. I repeat, report to your emergency Facility.

OR

- b. Report to your alternate emergency facility, I repeat, report to your alternate emergency facility.

### **NOTE:**

If ERO activation is NOT required, proceed to step 1.11 to send a Lotus Notes message.

- 1.1 From a PAX phone, dial 4370 (or dial 9-724-643-4370).
- 1.2 Interrupt the greeting by **IMMEDIATELY** entering XXXX.
- 1.3 When prompted, enter scenario number XXXX.
- 1.4 When prompted, verify scenario number (9 for YES or 6 for NO).
- 1.5 When prompted, "Do you want to record your on the fly message 1", Press 9 for YES or 6 for NO.

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

82 of 86

ATTACHMENT 14 (2 of 2)

## ERO BEEPER ACTIVATION INSTRUCTIONS (EXAMPLE)

### CHECK

- 1.6 When prompted, "Enter on the fly 1 segment ID or press star to record".
- 1.6.1 **PRESS \*** (A short delay will occur).
- 1.7 When prompted, "Please speak your message after the tone", provide the information from Step 1.0 in your on the fly message.
- 1.7.1 **PRESS** the # key when done with message.
- 1.8 Review message, when prompted "Is that correct?" (Press 9 for YES and 6 for NO).
- 1.9 When prompted "You will queue scenario XXXX. It will now be sent. Are you sure this is what you want to do?" (Press 9 for YES or 6 for NO)
- 1.10 Call the Central Alarm Station (CAS) (PAX 5114/5115) and provide the following information:
- Your name and title.
  - **EPP CODE WORD** \_\_\_\_\_
  - A/An \_\_\_\_\_ has been declared.
  - ERO pagers have been activated. Call back at PAX \_\_\_\_\_ when pager activates.
  - Request Near Site Building Emergency Notifications be made.
- 1.11 From Lotus Notes, send a message "beeper all call" with the information from Step 1.0 above. Include if ERO is to report or not. (Limit 220 characters.)

# Beaver Valley Power Station

Procedure Number:

EPP/IP 1.1

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

83 of 86

ATTACHMENT 15 (1 of 2)

## ACTIVATION OF THE INITIAL NOTIFICATION CONFERENCE (INC) CALL INSTRUCTIONS (EXAMPLE)

### A. INITIATING INC

#### NOTE:

If BVERS is unavailable, go to Part B.1 of this Attachment.

- 1.0 Activate Offsite Agency Initial Notification Conference (INC) Call.
  - 1.1 On EP Auto-Dialer, press button marked **INC OR DIAL** 9# 1-330-315-4380 (or from a PAX phone, dial 9-1-330-315-4380).
  - 1.2 Interrupt the greeting by **IMMEDIATELY** entering XXXXXX.
    - 1.2.1 IF unable to activate INC, GO TO PART B of this procedure.
  - 1.3 When prompted, enter the **SCENARIO NUMBER** XXXXX.
  - 1.4 When prompted, verify the **SCENARIO NUMBER** (9 for YES OR 6 for NO).
  - 1.5 Verify when prompted, "You will cue **SCENARIO** XXXX. It will now be sent. Are you sure this is what you want to do?" (9 for YES OR 6 for NO).
  - 1.6 Hang up.
- 2.0 Access Initial Notification Conference Bridge.
  - 2.1 On EP Auto-Dialer, press button marked **CONF. Bridge** OR dial 9# 724-682-1900 (OR from a PAX phone, dial 9-724-682-1900).
  - 2.2 When prompted, enter XXXXXX, then the # key.
- 3.0 Return to Procedure/Attachment Step in progress.

<b>Beaver Valley Power Station</b>		Procedure Number: <b>EPP/IP 1.1</b>	
Title:  Notifications	Unit: <b>1/2</b>	Level Of Use: <b>In-Field Reference</b>	
	Revision: <b>28</b>	Page Number: <b>84 of 86</b>	

**ATTACHMENT 15 (2 of 2)**

**ACTIVATION OF THE INITIAL NOTIFICATION  
CONFERENCE (INC) CALL INSTRUCTIONS (EXAMPLE)**

**B. Individual Offsite Agency Initial Notification(s).**

- 1.0 Obtain completed Initial Notification Form from the NSS/ED or Control Room FAX machine.
- 2.0 Contact each required Offsite Agency per EPP/IP 1.1, Attachment 2.
- 3.0 Record the contact time and the name of agency representative on attachment.
- 4.0 **STATE** "This is \_\_\_\_\_ (Your Name) \_\_\_\_\_ EPP Communicator".
- 5.0 **STATE** "EPP Code Word is \_\_\_\_\_."
- 6.0 Ask each agency if they received the Initial Notification Form FAX and if it is legible.
  - 6.1 If YES, ask if there are any questions.
  - 6.2 **STATE** the Protective Action Recommendation.
  - 6.3 If NO, provide information from Initial Notification Form.
- 7.0 Return to Procedure/Attachment Step in progress.

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

1/2

In-Field Reference

Notifications

Revision:

Page Number:

28

85 of 86

ATTACHMENT 16 (1 of 1)

## **INSTRUCTIONS FOR NOTIFICATION OF ERO FOR EVENT ESCALATIONS/UPDATES**

1. Open Lotus Notes. Select **New Memo**.
2. In the TO: block, type
3. In the BODY: Type time and Unit followed by a brief description of the event. Message length should be kept to less than 220 characters.
4. Press **SEND** and continue with step 10.

OR

5. If Lotus Notes is not working, then access the internet.
6. Go to the web site [www.airtouchpaging.com](http://www.airtouchpaging.com) and click on **Send A Message**.
7. In block for Step 1, enter **XXXXXXXXXX**.
8. In block for Step 2, enter text message for transient (up to 240 characters, a counter is provided).
9. At Step 3, click on send.
10. Call the Central Alarm Station (CAS) and provide the following information:
  - **Identify yourself by name**
  - Your position
11. Inform Security that the ERO beepers are going to be toned out with notification of a Unit Transient.
12. Five minutes after initial contact of CAS, call CAS again (if they have not contacted you) to verify beeper actuation.

# Beaver Valley Power Station

Procedure Number:

**EPP/IP 1.1**

Title:

Unit:

Level Of Use:

**1/2**

**In-Field Reference**

Notifications

Revision:

Page Number:

**28**

**86 of 86**

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