

CRITICAL STEP EXPLANATIONS:

STEP #	Explanation
1 & 2	Required to determine path's dose.
3	Required to determine path with lowest dose.

CANDIDATE CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

- The crew is attempting to place a system in service, but they are unable to remotely open a valve.
- You have been tasked with entering containment and locally opening the valve.
- Health Physics personnel are currently unavailable to provide assistance.
- Two routes are available to the valve:
 - Route 1 consists of two segments.
 - Segment 1 has you walk through a 200mR/hr general field for 2 minutes.
 - Segment 2 has you walk in a 300 mR/hr general field to the valve for 8 minutes
 - Route 2 consists of two segments.
 - Segment 1 has you walk through a 50 mR/hr general field for 4 minutes.
 - Segment 2 has you walk in a 150 mR/hr general field to the valve for 12 minutes
 - The two routes as detailed are to be considered separately and are listed as the round-trip time to and from the manual valve.

INITIATING CUE:

You are to determine which route allows the lowest exposure.

DRAFT

**REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE**

Admin-4

**EPIP-1.01 EMERGENCY MANAGER CONTROLLING
PROCEDURE**

Determine highest EPIP classification.

CANDIDATE

EXAMINER

DRAFT

REGION II
INITIAL LICENSE EXAMINATION
JOB PERFORMANCE MEASURE

Task:

Classify an emergency event (EPIP-1.01).

Alternate Path:

NO

Facility JPM #:

S-94.6

K/A Rating(s):

Gen 2.4.29 (2.6/4.0)

Task Standard:

Event is classified as a Notification of Unusual Event (NOUE) per TAB B.8

Preferred Evaluation Location:

Simulator X Classroom X

Preferred Evaluation Method:

Perform Simulate X

References:

EPIP-1.01, "EMERGENCY MANAGER CONTROLLING PROCEDURE, Rev. 42.
EMERGENCY ACTION LEVEL TECHNICAL BASIS DOCUMENT, Rev. 13

Validation Time: 10 min.

Time Critical: NO

Candidate: _____

NAME

Time Start: _____

Time Finish: _____

Performance Rating: SAT UNSAT

Performance Time

Examiner: _____

NAME

SIGNATURE

DATE

Comments

SIMULATOR OPERATOR INSTRUCTIONS:

NONE

Tools/Equipment/Procedures Needed:

EPIP-1.01, "EMERGENCY MANAGER CONTROLLING PROCEDURE, Rev 42.
EMERGENCY ACTION LEVEL TECHNICAL BASIS DOCUMENT, Rev. 13

READ TO OPERATOR

DIRECTIONS TO STUDENT:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Unit-1 Shutdown Banks had been pulled and an RCS dilution was about to begin, in preparation for a unit start-up.

Due to an increase in containment sump pumping rate, the control room crew completes a leak rate PT and determines that unidentified RCS leakage inside Unit-1 containment has increased to 1.01 gpm. The leak rate PT was completed at 0415 hours.

The operating crew entered the applicable Technical Specification.

Efforts to determine the location of the leak and reduce the leakage have been unsuccessful.

At 1300 hours the shutdown banks were inserted.

At 1415 hours, the OATC operates the Steam Dumps to begin cooling down the unit.

INITIATING CUE:

You are requested to classify the emergency event and determine any Protective Action Recommendation if required.

Assume any support personnel designated by the procedure are performing as required.

START TIME: _____

<p><u>STEP 1:</u> Determine the event category using the emergency action level table index.</p> <p><u>STANDARD:</u> Event is identified as a "Reactor Coolant System" event</p> <p><u>COMMENTS:</u></p>	<p>___ SAT</p> <p>___ UNSAT</p>
<p><u>STEP 2:</u> Review the emergency action level tab associated with the event category.</p> <p><u>STANDARD:</u> Emergency action level tab is reviewed.</p> <p><u>COMMENTS:</u></p>	<p>___ SAT</p> <p>___ UNSAT</p>
<p><u>STEP 3:</u> Use available resources to obtain indications of emergency conditions.</p> <p><u>STANDARD:</u> Conditions are reviewed.</p> <p><u>COMMENTS:</u></p>	<p>___ SAT</p> <p>___ UNSAT</p>
<p><u>STEP 4:</u> Verify that an emergency action level has been exceeded.</p> <p><u>STANDARD:</u> Event is classified as a Notification of Unusual Event (NOUE) per TAB B.8</p> <p><u>COMMENTS:</u></p> <p style="text-align: center;">END OF TASK</p>	<p>CRITICAL STEP</p> <p>___ SAT</p> <p>___ UNSAT</p>

TIME STOP: _____

CRITICAL STEP EXPLANATIONS:

STEP #	Explanation
4	The candidate needs to be able to utilize the procedure and determine that a Notification of Unusual Event (NOUE) needs to be declared.

CANDIDATE CUE SHEET
(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

Unit-1 Shutdown Banks had been pulled and an RCS dilution was about to begin, in preparation for a unit start-up.

Due to an increase in containment sump pumping rate, the control room crew completes a leak rate PT and determines that unidentified RCS leakage inside Unit-1 containment has increased to 1.01 gpm. The leak rate PT was completed at 0415 hours.

The operating crew entered the applicable Technical Specification.

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INITIATING CUE:

You are requested to classify the emergency event and determine any Protective Action Recommendation if required.

Assume any support personnel designated by the procedure are performing as required.

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.13 RCS Operational LEAKAGE

- LCO 3.4.13 RCS operational LEAKAGE shall be limited to:
- a. No pressure boundary LEAKAGE;
 - b. 1 gpm unidentified LEAKAGE;
 - c. 10 gpm identified LEAKAGE;
 - d. 1 gpm total primary to secondary LEAKAGE through all steam generators (SGs); and
 - e. 500 gallons per day primary to secondary LEAKAGE through any one SG.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. RCS LEAKAGE not within limits for reasons other than pressure boundary LEAKAGE.	A.1 Reduce LEAKAGE to within limits.	4 hours
B. Required Action and associated Completion Time of Condition A not met. <u>OR</u> Pressure boundary LEAKAGE exists.	B.1 Be in MODE 3. <u>AND</u> B.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.4.13.1 -----NOTE----- Not required to be performed until 12 hours after establishment of steady state operation. ----- Verify RCS operational LEAKAGE is within limits by performance of RCS water inventory balance.</p>	<p>72 hours</p>
<p>SR 3.4.13.2 Verify steam generator tube integrity is in accordance with the Steam Generator Tube Surveillance Program.</p>	<p>In accordance with the Steam Generator Tube Surveillance Program</p>

VIRGINIA POWER
NORTH ANNA POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

LEVEL 3 CONTROLLED COPY

NUMBER	PROCEDURE TITLE	REVISION
EPIP-1.01	EMERGENCY MANAGER CONTROLLING PROCEDURE	42
	(With 3 Attachments)	PAGE 1 of 7

PURPOSE

To assess potential emergency conditions and initiate corrective actions.

ENTRY CONDITIONS

Any of the following:

1. Another station procedure directs initiation of this procedure.
2. A potential emergency condition is reported to the Shift Manager.

Approvals on File

Effective Date 7-18-06

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

CAUTION: Declaration of the highest emergency class for which an Emergency Action Level is exceeded shall be made.		

NOTE: The PCS is potentially unreliable in the event of an earthquake. Therefore, PCS parameters should be evaluated for accuracy should this situation occur.		
_____ 1	EVALUATE EMERGENCY ACTION LEVELS:	
	a) Determine event category using Attachment 1, EMERGENCY ACTION LEVEL TABLE INDEX b) Review EAL Tab associated with event category c) Use Control Room monitors, PCS, and outside reports to get indications of emergency conditions listed in the EAL Table d) Verify EAL - CURRENTLY EXCEEDED	d) <u>IF</u> basis for EAL no longer exists when discovered <u>AND</u> no other reasons exist for an emergency declaration, <u>THEN</u> do the following: • RETURN TO procedure in effect. • GO TO VPAP-2802, NOTIFICATIONS AND REPORTS, to make one-hour, non-emergency reports for classification without declaration. <u>IF</u> EAL was <u>NOT</u> exceeded, <u>THEN</u> RETURN TO procedure in effect.
(STEP 1 CONTINUED ON NEXT PAGE)		

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
1	<p>EVALUATE EMERGENCY ACTION LEVELS: (Continued)</p> <p>e) Record procedure initiation:</p> <ul style="list-style-type: none"> By: _____ Date: _____ Time: _____ <p>f) Initiate a chronological log of events</p> <p>g) Declare position of Station Emergency Manager</p> <p>NOTE: Assembly, accountability and/or initiation of facility staffing may not be desired during certain situations (e.g., security event, severe weather, anticipated grid disturbance) or may have already been completed. These activities should be implemented as quickly as achievable given the specific situation.</p>	
2	<p>CHECK - CONDITIONS ALLOW FOR NORMAL IMPLEMENTATION OF EMERGENCY RESPONSE ACTIONS</p>	<p><u>IF</u> deviation from normal emergency response actions warranted, <u>THEN</u> do the following:</p> <p>a) Refer to Attachment 3, Considerations for Operations Response Under Abnormal Conditions.</p> <p>b) Consider applicability of 50.54(x).</p> <p>c) <u>IF</u> classification/assembly announcement deferred, <u>THEN</u> GO TO Step 4.</p>

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
3	<p>NOTIFY PLANT STAFF OF ALERT OR HIGHER CLASSIFICATION:</p> <p>a) Check classification - ALERT OR HIGHER</p> <p>b) Check if emergency assembly and accountability - PREVIOUSLY CONDUCTED</p> <p>c) Have Control Room sound EMERGENCY alarm and make announcement on station Gai-Tronics system as follows: "(Emergency classification) has been declared as the result of _____" (event)</p> <p>d) Repeat Step 3.c</p>	<p>a) GO TO Step 4.</p> <p>b) Do the following:</p> <p>1) Have Control Room sound EMERGENCY alarm and make announcement on station Gai-Tronics system as follows: "(Emergency classification) has been declared as the result of _____" (event) "All Emergency Response personnel report to your assigned stations" "All contractor personnel not responding to the emergency and all visitors report to the Security Building" "All other personnel report to your Emergency Assembly Areas"</p> <p>2) Repeat RNO Step 3.b.1.</p> <p>3) GO TO Step 4.</p>

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
<p>*****</p> <p>CAUTION: Continue through this and all further instructions unless otherwise directed to hold.</p> <p>*****</p>		
4	<p>INITIATE SUPPORTING PROCEDURES:</p> <p>a) Direct Emergency Communicators to initiate the following procedures:</p> <p>1) EMIP-2.01, NOTIFICATION OF STATE AND LOCAL GOVERNMENTS</p> <p>2) EMIP-2.02, NOTIFICATION OF NRC</p> <p>b) Direct HP to initiate EMIP-4.01, RADIOLOGICAL ASSESSMENT DIRECTOR CONTROLLING PROCEDURE</p> <p>c) Establish communications with Security Team Leader:</p> <p>1) Provide Security with current emergency classification</p> <p>2) Notify Security which Operations Shift is designated for coverage</p> <p>3) Direct Security to initiate EMIP-5.09, SECURITY TEAM LEADER CONTROLLING PROCEDURE</p>	

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 5	CHECK TSC - ACTIVATED	<p><u>IF</u> TSC <u>NOT</u> activated, <u>THEN</u> do the following:</p> <ul style="list-style-type: none"> a) Have STA report to the Control Room. b) Notify Manager Nuclear Operations or Operations Manager On Call. c) Consider having Radiological Assessment Director report to the Control Room. d) <u>WHEN</u> relief SEM arrives, <u>THEN</u> perform turnover using EPIP-1.01, Attachment 2, Turnover Checklist.
_____ 6	<p>IMPLEMENT EPIP FOR EMERGENCY CLASSIFICATION IN EFFECT:</p> <ul style="list-style-type: none"> • Notification of Unusual Event - GO TO EPIP-1.02, RESPONSE TO NOTIFICATION OF UNUSUAL EVENT • Alert - GO TO EPIP-1.03, RESPONSE TO ALERT • Site Area Emergency - GO TO EPIP-1.04, RESPONSE TO SITE AREA EMERGENCY • General Emergency - GO TO EPIP-1.05, RESPONSE TO GENERAL EMERGENCY 	

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
7	NOTIFY OFFSITE AUTHORITIES OF EMERGENCY TERMINATION: a) State and local governments (made by LEOF or CEOF when activated) b) NRC	
8	NOTIFY STATION PERSONNEL ABOUT THE FOLLOWING: • Emergency termination • Facility de-activation • Selective release of personnel • Completion and collection of procedures • Recovery	
9	TERMINATE EPIP-1.01: • Give completed EIPs, forms and other applicable records to Nuclear Emergency Preparedness (TSC Emergency Procedures Coordinator if TSC activated) • Completed By: _____ Date: _____ Time: _____	

-END-

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- CAUTION:
- Declaration of the highest emergency class for which an EAL is exceeded shall be made.
 - Emergency Action Levels shall be conservatively classified based on actual or anticipated plant conditions.

EVENT CATEGORY: TAB

1. Safety, Shutdown, or Assessment System Event.....A
2. Reactor Coolant System Event.....B
3. Fuel Failure or Fuel Handling Accident.....C
4. Containment Event.....D
5. Radioactivity Event.....E
6. DELETED
7. Loss of Secondary Coolant.....G
8. Electrical Failure.....H
9. Fire.....I
10. Security Event.....J
11. Hazard to Station Operation.....K
12. Natural Events.....L
13. Miscellaneous Abnormal Events.....M

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CONDITION/APPLICABILITY

INDICATION

CLASSIFICATION

CAUTION: EAL C.2 is duplicated below for cross-reference/comparison to EAL A.1:

C.2. Probable large radioactivity release initiated by loss of heat sink leading to core degradation

MODES 1, 2, 3 & 4

Loss of Main Feedwater System, Condensate System and Auxiliary Feedwater System

GENERAL
EMERGENCY

1. Loss of function needed for unit HSD condition

MODES 1, 2, 3 & 4

- Total loss of the Charging/SI System

OR

Total loss of the Main Feedwater and Auxiliary Feedwater systems

SITE AREA
EMERGENCY

2. Failure of the Reactor Protection System to initiate and complete a required trip while at power

MODES 1 & 2

- Reactor trip setpoint and coincidences - EXCEEDED

AND

- Automatic trip from RPS - FAILED

AND

- Manual trip from Control Room - FAILED

SITE AREA
EMERGENCY

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
<p>3. Inability to monitor a significant transient in progress</p> <p>MODES 1, 2, 3 & 4</p>	<ul style="list-style-type: none"> Most (>75%) or all annunciator alarms on panels "A" to "K" - NOT AVAILABLE <p><u>AND</u></p> <ul style="list-style-type: none"> All computer monitoring capability (e.g., PCS) - NOT AVAILABLE <p><u>AND</u></p> <ul style="list-style-type: none"> Significant transient - IN PROGRESS (e.g., reactor trip, SI actuation, turbine runback >25% thermal reactor power, thermal power oscillations >10%) <p><u>AND</u></p> <ul style="list-style-type: none"> Inability to directly monitor any one of the following using Control Room indications: <ul style="list-style-type: none"> Subcriticality Core Cooling Heat Sink Vessel Integrity Containment Integrity 	<p>SITE AREA EMERGENCY</p>
<p>4. Evacuation of Main Control Room with control not established within 15 minutes</p> <p>ALL MODES</p>	<p>Evacuation of the Control Room with local shutdown control not established within 15 minutes</p>	<p>SITE AREA EMERGENCY</p>

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
5. Total loss of function needed for unit CSD condition MODES 5 & 6	<ul style="list-style-type: none"> Secondary system cooling capability - UNAVAILABLE <p><u>AND</u></p> <ul style="list-style-type: none"> Loss of any of the following systems: <ul style="list-style-type: none"> Service Water Component Cooling RHR <p><u>AND</u></p> <ul style="list-style-type: none"> RCS temperature GREATER THAN 140 °F 	ALERT
6. Failure of the Reactor Protection System to complete a trip which takes the Reactor Subcritical MODES 1 & 2	<ul style="list-style-type: none"> Reactor trip setpoint and coincidences - EXCEEDED <p><u>AND</u></p> <ul style="list-style-type: none"> Automatic trip from RPS - FAILED <p><u>AND</u></p> <ul style="list-style-type: none"> Manual trip - REQUIRED <p><u>AND</u></p> <ul style="list-style-type: none"> Manual trip from Control Room - SUCCESSFUL 	ALERT

NUMBER	ATTACHMENT TITLE	REVISION
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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
<p>7. Unplanned loss of safety system annunciators with compensatory indicators unavailable or a transient in progress</p> <p>MODES 1, 2, 3 & 4</p>	<ul style="list-style-type: none"> Unplanned loss of most (>75%) or all annunciator alarms on panels "A" to "K" for GREATER THAN 15 minutes <p><u>AND</u></p> <ul style="list-style-type: none"> All computer monitoring capability (e.g., PCS) - NOT AVAILABLE <p><u>OR</u></p> <p>Significant transient - INITIATED OR IN PROGRESS (e.g., reactor trip, SI, turbine runback > 25% thermal reactor power, thermal power oscillations > 10%)</p>	ALERT
<p>8. Evacuation of Main Control Room required</p> <p>ALL MODES</p>	Evacuation of the Control Room with shutdown control established within 15 minutes	ALERT
<p>9. Inability to reach required mode within technical specification limits</p> <p>MODES 1, 2, 3 & 4</p>	<ul style="list-style-type: none"> Intentional reduction in power, load or temperature IAW T.S. Action Statement - HAS COMMENCED <p><u>AND</u></p> <ul style="list-style-type: none"> T.S. Action Statement time limit for mode change - CANNOT BE MET 	NOTIFICATION OF UNUSUAL EVENT

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
<p>10. Failure of a safety or relief valve to close after pressure reduction, which may affect the health and safety of the public</p> <p>MODES 1, 2, 3, 4 & 5</p>	<ul style="list-style-type: none"> • <u>RCS</u> • RCS pressure - LESS THAN 2000 psig <p style="text-align: center;"><u>OR</u></p> <p>NDT Protection System - IN SERVICE</p> <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> • Any indication after lift or actuation that Pressurizer Safety or PORV - REMAINS OPEN <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> • Flow - UNISOLABLE <ul style="list-style-type: none"> • <u>Main Steam</u> • Excessive Steam Generator Safety, PORV or Decay Heat Release flow as indicated by rapid RCS cooldown rate <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> • Main Steam pressure greater than 100 psi below setpoint of affected valve 	<p>NOTIFICATION OF UNUSUAL EVENT</p>
<p>11. Unplanned loss of most or all safety system annunciators for greater than 15 minutes</p> <p>MODES 1, 2, 3 & 4</p>	<ul style="list-style-type: none"> • Unplanned loss of most (>75%) or all annunciators on panels "A" to "K" for GREATER THAN 15 minutes 	<p>NOTIFICATION OF UNUSUAL EVENT</p>

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
12. Loss of communications capability ALL MODES	<ul style="list-style-type: none"> Station PBX phone system - FAILED <u>AND</u> Station Gai-tronics system - FAILED <u>AND</u> Station UHF radio system - FAILED 	NOTIFICATION OF UNUSUAL EVENT

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EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB B) REACTOR COOLANT SYSTEM EVENT	42
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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
1. Loss of 2 of 3 fission product barriers with potential loss of 3rd barrier ALL MODES	<p>Any two of a), b) or c) exist and the third is imminent:</p> <p>a) Fuel clad integrity failure as indicated by any of the following:</p> <ul style="list-style-type: none"> RCS specific activity greater than or equal to 300.0 $\mu\text{Ci/gram}$ dose equivalent I-131 <p style="text-align: center;"><u>OR</u></p> <p>5 or more core exit thermocouples greater than 1200 °F</p> <p style="text-align: center;"><u>OR</u></p> <p>Containment High Range Radiation Monitor</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> RM-RMS-165, -166 or RM-RMS-265, -266 GREATER THAN 1.88×10^2 R/hr </div> <p>b) Loss of RCS integrity as indicated by any of the following:</p> <ul style="list-style-type: none"> RCS pressure greater than 2735 psig <p style="text-align: center;"><u>OR</u></p> <p>Loss of Reactor Coolant in progress</p> <p>c) Loss of containment integrity as indicated by any of the following:</p> <ul style="list-style-type: none"> Containment pressure greater than 60 psia and not decreasing <p style="text-align: center;"><u>OR</u></p> <p>Release path to environment - EXISTS</p>	GENERAL EMERGENCY

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
2. Fuel failure with steam generator tube rupture ALL MODES	<p>Any two of a), b) or c) exist and the third is imminent:</p> <p>a) Fuel clad integrity failure as indicated by any of the following:</p> <ul style="list-style-type: none"> RCS specific activity greater than 300 $\mu\text{Ci/gram}$ dose equivalent I-131 <p><u>OR</u></p> <p>5 or more core exit thermocouples GREATER THAN 1200 °F</p> <p><u>OR</u></p> <p>High Range Letdown radiation monitor</p> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1-CH-RI-128 or 2-CH-RI-228 GREATER THAN 5.9×10^4 mR/hr </div> <p>b) Steam Generator tube rupture as indicated by both of the following:</p> <ul style="list-style-type: none"> SI coincidence - SATISFIED <p><u>AND</u></p> <ul style="list-style-type: none"> Steam Generator tube rupture - IN PROGRESS <p>c) Loss of secondary integrity associated with ruptured steam generator pathway as indicated by any of the following:</p> <ul style="list-style-type: none"> Steam Generator PORV - OPEN <p><u>OR</u></p> <p>Main Steam Code Safety Valve - OPEN</p> <p><u>OR</u></p> <p>Loss of secondary coolant outside containment - IN PROGRESS</p>	GENERAL EMERGENCY

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
3. RCS leak rate exceeds makeup capacity MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Primary system leak (LOCA) - IN PROGRESS <p><u>AND</u></p> <ul style="list-style-type: none"> Safety Injection - REQUIRED <p><u>AND</u></p> <ul style="list-style-type: none"> RCS subcooling based on Core Exit Thermocouples - LESS THAN 30° F <p><u>OR</u></p> <p>RCS inventory cannot be maintained based on pressurizer level or RVLIS indication</p>	SITE AREA EMERGENCY
4. Gross primary to secondary leakage with loss of offsite power MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Steam Generator Tube Rupture - IN PROGRESS <p><u>AND</u></p> <ul style="list-style-type: none"> Safety Injection - REQUIRED <p><u>AND</u></p> <ul style="list-style-type: none"> Vent Vent A MGPI Monitor <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> RM-VG-179 GREATER THAN 1.25×10^8 $\mu\text{Ci/sec}$ </div> <p><u>OR</u></p> <p>Steam Generator Blowdown monitor on affected pathway</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> RM-SS-122, -222 RM-SS-123, -223 RM-SS-124, -224 GREATER THAN 1×10^6 cpm </div> <p><u>AND</u></p> <ul style="list-style-type: none"> A subsequent loss of offsite power indicated by zero volts on voltmeters for 4160V buses D, E, & F 	SITE AREA EMERGENCY

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE	42
ATTACHMENT	(TAB B). REACTOR COOLANT SYSTEM EVENT	PAGE
1		11 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
5. RCS leak rate limit - EXCEEDED MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Pressurizer level cannot be maintained greater than 20% with one (1) Charging/SI pump in operation <p><u>AND</u></p> <ul style="list-style-type: none"> RCS inventory balance indicates leakage - greater than 50 gpm 	ALERT
6. Gross primary to secondary leakage MODES 1, 2, 3, & 4	Steam Generator Tube Rupture - IN PROGRESS <p><u>AND</u></p> Safety Injection - REQUIRED	ALERT
7. Excessive primary to secondary leakage with loss of offsite power MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Intentional reduction in power, load or temperature IAW T.S. 3.4.13 primary-to-secondary leakage LCO Action Statement <p><u>AND</u></p> <ul style="list-style-type: none"> Vent Vent A MGPI Monitor <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> RM-VG-179 GREATER THAN $1.73 \times 10^6 \mu\text{Ci/sec}$ </div> <p><u>OR</u></p> Steam Generator Blowdown monitor on affected pathway <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> RM-SS-122, -222 RM-SS-123, -223 RM-SS-124, -224 GREATER THAN 1×10^5 cpm </div> <p><u>AND</u></p> <ul style="list-style-type: none"> A subsequent loss of offsite power indicated by zero volts on voltmeters for 4160V buses D, E, & F 	ALERT

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE	42
ATTACHMENT	(TAB B) REACTOR COOLANT SYSTEM EVENT	PAGE
1		12 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
8. RCS operational leakage requiring plant shutdown IAW T.S. 3.4.13 MODES 1, 2, 3, & 4	Intentional reduction in power load or temperature IAW T.S. 3.4.13 leakage limit action statement - HAS COMMENCED	NOTIFICATION OF UNUSUAL EVENT

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE	42
ATTACHMENT	(TAB C)	PAGE
1	FUEL FAILURE OR FUEL HANDLING ACCIDENT	13 of 42

CONDITION/APPLICABILITY

INDICATION

CLASSIFICATION

1. Probable large radioactivity release initiated by LOCA with ECCS failure leading to core degradation

ALL MODES

- Loss of reactor coolant in progress

AND

- RCS specific activity - greater than 300 $\mu\text{Ci/gram}$ dose equivalent I-131

OR

Containment High Range Radiation Monitor

RM-RMS-165, -166 or
RM-RMS-265, -266
GREATER THAN
 1.88×10^2 R/hr

AND

- High or low head ECCS flow not being delivered to the core (if expected by plant conditions)

CAUTION: EAL A.1 is duplicated below for cross-reference/comparison to EAL C.2:

- A.1. Loss of function needed for unit HSD condition

MODES 1, 2, 3 & 4

- Total loss of the Charging/SI System

OR

Total loss of the Main Feedwater and Auxiliary Feedwater systems

SITE AREA
EMERGENCY

2. Probable large radioactivity release initiated by loss of heat sink leading to core degradation

MODES 1, 2, 3 & 4

Loss of Main Feedwater System, Condensate System and Auxiliary Feedwater System

GENERAL
EMERGENCY

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB C)	42
ATTACHMENT 1	FUEL FAILURE OR FUEL HANDLING ACCIDENT	PAGE 14 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
3. Probable large radioactivity release initiated by failure of protection system to bring Rx subcritical and causing core degradation ALL MODES	<ul style="list-style-type: none"> Rx nuclear power after a trip - greater than 5% <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> RCS pressure greater than or equal to 2485 psig <p style="text-align: center;"><u>OR</u></p> <p>Containment pressure and temperature rapidly increasing</p>	GENERAL EMERGENCY
4. Probable large radioactivity release initiated by loss of AC power and all feedwater ALL MODES	<ul style="list-style-type: none"> Loss of all onsite and offsite AC power <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> Turbine Driven Auxiliary Feedwater Pump not operable <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> Restoration of either of the above not likely within 2 hours 	GENERAL EMERGENCY

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE	42
ATTACHMENT	(TAB C)	PAGE
1	FUEL FAILURE OR FUEL HANDLING ACCIDENT	15 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
5. Probable large radioactivity release initiated by LOCA with loss of ECCS and containment cooling ALL MODES	<ul style="list-style-type: none"> Loss of reactor coolant in progress <p><u>AND</u></p> <ul style="list-style-type: none"> High or low head ECCS flow not being delivered to the core (if expected by plant conditions) <p><u>AND</u></p> <ul style="list-style-type: none"> Containment RS sump temperature greater than 190°F and NOT decreasing <p><u>OR</u></p> <p>All Quench Spray and Recirculation Spray systems - NOT OPERABLE</p>	GENERAL EMERGENCY

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE	42
ATTACHMENT	(TAB C)	PAGE
1	FUEL FAILURE OR FUEL HANDLING ACCIDENT	16 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
6. Core damage with possible loss of coolable geometry MODES 1, 2, 3, & 4	<p>a) Fuel clad failure as indicated by any of the following:</p> <ul style="list-style-type: none"> RCS Specific activity greater than 60 $\mu\text{Ci}/\text{gram}$ dose equivalent I-131 <p><u>OR</u></p> <p>High Range Letdown radiation monitor</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> 1-CH-RI-128 or 2-CH-RI-228 GREATER THAN 1.2×10^4 mR/hr </div> <p><u>AND</u></p> <p>b) Loss of cooling as indicated by any of the following:</p> <ul style="list-style-type: none"> 5 confirmed core exit thermocouples greater than 1200 °F <p><u>OR</u></p> <p>Core delta T - zero</p> <p><u>OR</u></p> <p>Core delta T - rapidly diverging</p>	SITE AREA EMERGENCY

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE	42
ATTACHMENT	(TAB C)	PAGE
1	FUEL FAILURE OR FUEL HANDLING ACCIDENT	17 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
<p>7. Major fuel damage accident with radioactivity release to containment or fuel buildings</p> <p>ALL MODES</p>	<ul style="list-style-type: none"> Water level in Rx vessel during refueling below the top of core <p><u>OR</u></p> <p>Water level in spent fuel pool below top of spent fuel</p> <p><u>AND</u></p> <ul style="list-style-type: none"> Verified damage to irradiated fuel resulting in readings on Vent Vent "B" MGPI monitor <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> RM-VG-180 GREATER THAN $2.69 \times 10^8 \mu\text{Ci/sec}$ </div>	<p>SITE AREA EMERGENCY</p>
<p>8. Severe Fuel Clad Damage</p> <p>MODES 1, 2, 3, & 4</p>	<ul style="list-style-type: none"> High Range Letdown radiation monitor <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> 1-CH-RI-128 or 2-CH-RI-228 Increases to GREATER THAN Hi Hi Alarm setpoint (representing 1% fuel failure) within 30 minutes and remains for at least 15 minutes </div> <p><u>OR</u></p> <ul style="list-style-type: none"> RCS specific activity - greater than $300 \mu\text{Ci/gram}$ dose equivalent I-131 	<p>ALERT</p>

NUMBER	ATTACHMENT TITLE	REVISION
EGIP-1.01	EMERGENCY ACTION LEVEL TABLE	42
ATTACHMENT	(TAB C)	PAGE
1	FUEL FAILURE OR FUEL HANDLING ACCIDENT	18 of 42

CONDITION/APPLICABILITY

INDICATION

CLASSIFICATION

9. Fuel damage accident with release of radioactivity to containment or fuel buildings
ALL MODES

- Verified accident involving damage to irradiated fuel
- AND
- Health Physics confirms fission product release from fuel
- OR
- Vent Vent "B" MGPI monitor

ALERT

RM-VG-180 GREATER THAN
1.99 x 10⁶ µCi/sec

10. Potential for fuel damage to occur during refueling
MODE 6

Continuing uncontrolled decrease of water level in Reactor Refueling Cavity or Spent Fuel Pool

ALERT

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE	42
ATTACHMENT	(TAB C) FUEL FAILURE OR FUEL HANDLING ACCIDENT	PAGE
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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
11. Fuel clad damage indication MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Intentional reduction in power, load or temperature IAW reactor coolant activity T.S. Action Statement - HAS COMMENCED <p style="text-align: center;"><u>OR</u></p> <p>High Range Letdown radiation monitor</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> 1-CH-RI-128 or 2-CH-RI-228 Increases to GREATER THAN Hi Alarm setpoint (representing 0.1% fuel failure) within 30 minutes and remains for for at least 15 minutes </div>	NOTIFICATION OF UNUSUAL EVENT
12. Independent Spent Fuel Storage Installation (ISFSI) event ALL MODES	<ul style="list-style-type: none"> Verified Sealed Surface Storage Cask (SSSC) seal leakage <p style="text-align: center;"><u>OR</u></p> <p>Sealed Surface Storage Cask (SSSC) dropped or mishandled</p>	NOTIFICATION OF UNUSUAL EVENT

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB D) CONTAINMENT EVENT	42
ATTACHMENT		PAGE
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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
1. Extremely high containment radiation, pressure and temperature MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Containment High Range radiation monitor <div> RM-RMS-165, -166 or RM-RMS-265, -266 GREATER THAN 3.76×10^2 R/hr </div> <p><u>AND</u></p> <ul style="list-style-type: none"> Containment pressure greater than 45 psia and not decreasing <p><u>OR</u></p> <p>Containment temperature greater than 280°F</p>	GENERAL EMERGENCY
2. High-high containment radiation, pressure, and temperature MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Containment High Range radiation monitor <div> RM-RMS-165, -166 or RM-RMS-265, -266 GREATER THAN 1.88×10^2 R/hr </div> <p><u>AND</u></p> <ul style="list-style-type: none"> Containment pressure - greater than 27.75 psia and not decreasing <p><u>OR</u></p> <p>Containment temperature - greater than 200 °F</p>	SITE AREA EMERGENCY

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE	42
ATTACHMENT	(TAB D)	PAGE
1	CONTAINMENT EVENT	21 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
3. High Containment radiation, pressure and temperature MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Containment High Range radiation monitor <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> RM-RMS-165, -166 or RM-RMS-265, -266 GREATER THAN 81.5 R/hr </div> <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> Containment pressure - greater than 17 psia <p style="text-align: center;"><u>OR</u></p> Containment temperature - greater than 150°F	ALERT

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB E) RADIOACTIVITY EVENT	42
ATTACHMENT		PAGE
1		22 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
1. Release imminent or in progress and site boundary doses projected to exceed 1.0 Rem TEDE or 5.0 Rem Thyroid CDE ALL MODES	<ul style="list-style-type: none"> HP assessment indicates actual or projected doses at or beyond site boundary greater than 1.0 Rem TEDE or 5.0 Rem Thyroid CDE 	GENERAL EMERGENCY
2. Release imminent or in progress and site boundary doses projected to exceed 0.1 Rem TEDE or 0.5 Rem Thyroid CDE ALL MODES	<ul style="list-style-type: none"> HP assessment indicates actual or projected dose at or beyond Site Boundary exceeds 0.1 Rem TEDE or 0.5 Rem Thyroid CDE 	SITE AREA EMERGENCY

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE	42
ATTACHMENT	(TAB E)	PAGE
1	RADIOACTIVITY EVENT	23 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
3. Effluent release greater than 10 times ODCM allowable limit ALL MODES	<p>a) Any of the following monitors indicate valid readings above the specified values for greater than 15 minutes</p> <ul style="list-style-type: none"> Clarifier Effluent <div>RM-LW-111 GREATER THAN 4.8 x 10⁵ cpm</div> Discharge Canal <div>RM-SW-130 or -230 GREATER THAN 5 x 10⁴ cpm</div> Vent Vent A MGPI <div>RM-VG-179 GREATER THAN 1.73 x 10⁶ µCi/sec</div> Vent Vent B MGPI <div>RM-VG-180 GREATER THAN 1.99 x 10⁶ µCi/sec</div> Process Vent MGPI <div>RM-GW-178 GREATER THAN 1.35 x 10⁷ µCi/sec</div> <p>OR</p> <p>b) HP assessment (sample results or dose projections) indicate greater than 10 times ODCM allowable limit</p>	ALERT

NUMBER	ATTACHMENT TITLE EMERGENCY ACTION LEVEL TABLE (TAB E) RADIOACTIVITY EVENT	REVISION
EPIP-1.01		42
ATTACHMENT 1		PAGE 24 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
<p>4. High radiation or airborne contamination levels indicate a severe degradation in control of radioactive material</p> <p>ALL MODES</p>	<p>Valid readings on any of the following monitors have increased by a factor of 1000 and remain for at least 15 minutes:</p> <ul style="list-style-type: none"> Ventilation Vent Multi-sample gaseous or particulate monitor RM-VG-106 or -105 Control Room Area RMS-157 Aux. Bldg. Control Area RMS-154 Decon. Bldg. Area RMS-151 Fuel Pool Bridge Area RMS-153 New fuel storage Area RMS-152 Laboratory Area RMS-158 Sample Room Area RMS-156 	ALERT

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB E) RADIOACTIVITY EVENT	42
ATTACHMENT		PAGE
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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
5. Effluent release greater than ODCM allowable limit ALL MODES	<p>a) Any of the following monitors indicate valid readings above the specified value for more than 1 hour:</p> <ul style="list-style-type: none"> Clarifier Effluent <div>RM-LW-111 GREATER THAN 4.8×10^4 cpm</div> Discharge Canal <div>RM-SW-130 or -230 GREATER THAN 5×10^3 cpm</div> Vent Vent A MGPI <div>RM-VG-179 GREATER THAN 1.73×10^5 μCi/sec</div> Vent Vent B MGPI <div>RM-VG-180 GREATER THAN 1.99×10^5 μCi/sec</div> Process Vent MGPI <div>RM-GW-178 GREATER THAN 1.35×10^6 μCi/sec</div> <p>OR</p> <p>b) HP assessment (sample results or dose projections) indicates greater than ODCM allowable limit</p>	NOTIFICATION OF UNUSUAL EVENT

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB G) LOSS OF SECONDARY COOLANT	42
ATTACHMENT		PAGE
1		26 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
1. Major secondary line break with significant primary to secondary leakage and fuel damage indicated MODES 1, 2, 3, & 4	<p>Conditions a) and b) exist with c):</p> <p>a) Uncontrolled loss of secondary coolant - IN PROGRESS</p> <p><u>AND</u></p> <p>b) RCS specific activity exceeds limits of T.S. Figure 3.4.16-1</p> <p><u>OR</u></p> <p>High Range Letdown radiation monitor</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">1-CH-RI-128 or 2-CH-RI-228 GREATER THAN Hi Alarm setpoint</div> <p><u>AND</u></p> <p>c) Vent Vent A MGPI Monitor</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">RM-VG-179 GREATER THAN $6.21 \times 10^7 \mu\text{Ci/sec}$</div> <p><u>OR</u></p> <p>Affected pathway Steam Generator Blowdown monitor</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">RM-SS-122, -123, -124, -222, -223, -224 GREATER THAN $1 \times 10^6 \text{ cpm}$</div> <p><u>OR</u></p> <p>Affected pathway Main Steam Line High Range monitor</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">RM-MS-170, -171, -172, -270, -271, -272 GREATER THAN 12.2 mR/hr</div>	SITE AREA EMERGENCY

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB G) LOSS OF SECONDARY COOLANT	42
ATTACHMENT		PAGE
1		27 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
2. Major secondary line break with significant primary to secondary leakage MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Uncontrolled loss of secondary coolant - IN PROGRESS <p><u>AND</u></p> <ul style="list-style-type: none"> Vent Vent A MGPI Monitor <div>RM-VG-179 GREATER THAN 1.76 x 10⁶ µCi/sec</div> <p><u>OR</u></p> <p>Steam Generator Blowdown monitor on affected pathway</p> <div>RM-SS-122, -123, -124 RM-SS-222, -223, -224 GREATER THAN 1x10⁵ cpm</div> <p><u>OR</u></p> <p>Main Steam Line High Range monitor on affected pathway</p> <div>RM-MS-170, -171, -172 RM-MS-270, -271, -272 GREATER THAN 0.14 mR/hr</div>	ALERT
3. Major secondary line break MODES 1, 2, 3, & 4	Uncontrolled loss of secondary coolant - IN PROGRESS	NOTIFICATION OF UNUSUAL EVENT

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB H) ELECTRICAL FAILURE	42
ATTACHMENT		PAGE
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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
1. Loss of offsite and onsite AC power for more than 15 minutes ALL MODES	<p>The following conditions exist for greater than 15 minutes:</p> <ul style="list-style-type: none"> Ammeters for 4160V Reserve Station Service Buses D, E, & F all indicate - zero (0) amps <p><u>AND</u></p> <ul style="list-style-type: none"> Ammeters for 4160V Station Service Buses A, B, & C all indicate - zero (0) amps <p><u>AND</u></p> <ul style="list-style-type: none"> Ammeters for 4160V Emergency Buses H & J both indicate - zero (0) amps 	SITE AREA EMERGENCY
2. Loss of all onsite DC power for greater than 15 minutes ALL MODES	<p>The following conditions exist for greater than 15 minutes:</p> <ul style="list-style-type: none"> All station battery voltmeters indicate zero (0) volts <p><u>AND</u></p> <ul style="list-style-type: none"> No light indication available to Reserve Station Service breakers 15D1, 15E1 and 15F1 	SITE AREA EMERGENCY

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB H) ELECTRICAL FAILURE	42
ATTACHMENT		PAGE
1		29 of 42

CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
<p>CAUTION: EAL A.1 is duplicated below for cross-reference/comparison to EAL H.3:</p>		
<p>A.1. Loss of function needed for unit HSD condition</p> <p>MODES 1, 2, 3 & 4</p>	<ul style="list-style-type: none"> Total loss of the Charging/SI System <p><u>OR</u></p> <p>Total loss of the Main Feedwater and Auxiliary Feedwater Systems</p>	<p>SITE AREA EMERGENCY</p>
<p>3. Loss of all offsite and onsite AC power</p> <p>ALL MODES</p>	<ul style="list-style-type: none"> Ammeters for 4160V Reserve Station Service Buses D, E, & F all indicate - zero (0) amps <p><u>AND</u></p> <ul style="list-style-type: none"> Ammeters for 4160V Station Service Buses A, B, & C all indicate - zero (0) amps <p><u>AND</u></p> <ul style="list-style-type: none"> Ammeters for 4160V Emergency Buses H and J both indicate - zero (0) amps 	<p>ALERT</p>
<p>4. Loss of all onsite DC power</p> <p>ALL MODES</p>	<ul style="list-style-type: none"> All station battery voltmeters indicate - zero (0) volts <p><u>AND</u></p> <ul style="list-style-type: none"> No light indication available to Reserve Station Service Breakers 15D1, 15E1 and 15F1 	<p>ALERT</p>

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE	42
ATTACHMENT	(TAB H)	PAGE
1	ELECTRICAL FAILURE	30 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
5. Loss of offsite power or onsite AC power capability	<ul style="list-style-type: none"> Unit main generator and both emergency diesel generators out of service 	NOTIFICATION OF UNUSUAL EVENT
ALL MODES	<p><u>OR</u></p> <p>Loss of all 34.5 KV reserve station service buses</p>	

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB I) FIRE	42
ATTACHMENT		PAGE
1		31 of 42

<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
1. Fire resulting in degradation of safety systems MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Fire which causes major degradation of a safety system function required for protection of the public <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> Affected systems are caused to be <u>NOT</u> operable as defined by Tech. Specs. 	SITE AREA EMERGENCY
2. Fire potentially affecting station safety systems MODES 1, 2, 3, & 4	Fire which has potential for causing a safety system not to be operable as defined by Tech. Specs.	ALERT
3. Fire lasting greater than 10 minutes in Protected Area or Service Water Pump/Valve House ALL MODES	Fire within the Protected Area or Service Water Pump/Valve House which is not under control within 10 minutes after Fire Brigade - DISPATCHED	NOTIFICATION OF UNUSUAL EVENT

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB J) SECURITY EVENT	42
ATTACHMENT		PAGE
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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
1. Loss of physical control of the facility ALL MODES	A hostile force has taken control of plant equipment such that plant personnel are unable to operate equipment required to maintain <u>safety functions</u>	GENERAL EMERGENCY
2. Imminent loss of physical control of the plant ALL MODES	<ul style="list-style-type: none"> A confirmed security event within a plant Vital Area <u>OR</u> A notification from the site security force that an armed attack, explosive attack, airliner impact, or other hostile action is occurring or has occurred within the Protected Area	SITE AREA EMERGENCY
3. Ongoing Security compromise ALL MODES	<ul style="list-style-type: none"> A confirmed security event within the Protected Area <u>OR</u> A validated notification from NRC of an airliner attack threat less than 30 minutes away <u>OR</u> A notification from the site security force of an armed attack, explosive attack, airliner impact, or other hostile action within the Owner Controlled Area	ALERT

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
<p>4. Security threat, unauthorized attempted entry, or attempted sabotage</p> <p>ALL MODES</p>	<ul style="list-style-type: none"> • A credible site-specific security threat notification <p><u>OR</u></p> <p>A validated notification from NRC providing information of an aircraft threat</p> <p><u>OR</u></p> <p>A confirmed security event which indicates a potential degradation in the level of safety of the plant such as a violent civil disturbance or strike action, attempted sabotage, a hostage/extortion situation, or attempted intrusion in the Protected Area</p>	<p>NOTIFICATION OF UNUSUAL EVENT</p>

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EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB K) HAZARD TO STATION OPERATION	42
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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
1. Aircraft damage to vital plant systems MODES 1, 2, 3, & 4	Aircraft crash which affects vital structures by impact or fire	SITE AREA EMERGENCY
2. Severe explosive damage MODES 1, 2, 3, & 4	Explosion which results in severe degradation of any of the following systems required for safe shutdown: <ul style="list-style-type: none"> CVCS System <u>OR</u> ECCS System <u>OR</u> Main/Auxiliary Feedwater System 	SITE AREA EMERGENCY
3. Entry of toxic or flammable gases into plant vital areas other than the Control Room MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Uncontrolled release of toxic or flammable agents greater than life threatening or explosive limits in Vital Areas <u>AND</u> Evacuation of Vital Area other than Control Room - REQUIRED <u>OR</u> Significant degradation of plant safety systems resulting in loss of a safety system function required for protection of the public 	SITE AREA EMERGENCY

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
4. Severe missile damage to safety systems MODES 1, 2, 3, & 4	Missile impact causing severe degradation of safety systems required for unit shutdown	SITE AREA EMERGENCY
5. Aircraft crash on the facility ALL MODES	Aircraft crash within the Protected Area or Switchyard (other than impact from airliner attack - See TAB J)	ALERT
6. Explosion damage to facility ALL MODES	Unplanned explosion resulting in damage to plant structure or equipment that affects plant operations	ALERT
7. Entry of toxic or flammable gases or liquids into plant facility ALL MODES	Notification of uncontrolled release of toxic or flammable agent which causes: <ul style="list-style-type: none"> Evacuation of personnel from plant areas <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> Safety related equipment is rendered inoperable 	ALERT
8. Turbine failure or missile impact MODES 1 & 2	Failure of turbine/generator rotating equipment resulting in casing penetration	ALERT

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
9. Missile damage to safety related equipment or structures MODES 1, 2, 3, & 4	Notification of missile impact causing damage to safety related equipment or structures	ALERT
10. Aircraft crash or unusual aircraft activity ALL MODES	<ul style="list-style-type: none"> Confirmed notification of an aircraft crash within the site boundary (other than impact from airliner attack - See TAB J) <p style="text-align: center;"><u>OR</u></p> <p>Unusual aircraft activity in the vicinity of the site as determined by the Operations Shift Manager/ Station Emergency Manager or the Security Shift Supervisor</p>	NOTIFICATION OF UNUSUAL EVENT
11. Train derailment within Protected Area ALL MODES	Confirmed report of train derailment within Protected Area	NOTIFICATION OF UNUSUAL EVENT
12. Explosion within Protected Area ALL MODES	Confirmed report of unplanned explosion within Protected Area	NOTIFICATION OF UNUSUAL EVENT
13. Onsite or nearsite release of toxic or flammable liquids or gases ALL MODES	Notification of unplanned release of toxic or flammable agents which may affect safety of station personnel or equipment	NOTIFICATION OF UNUSUAL EVENT

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
14. Turbine rotating component failure with no casing penetration MODES 1 & 2	Failure of turbine/generator rotating equipment resulting in immediate unit shutdown	NOTIFICATION OF UNUSUAL EVENT

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
1. Earthquake greater than or equal to DBE levels MODES 1, 2, 3, & 4	<ul style="list-style-type: none"> Confirmed earthquake which activates the Event Indicator on the Strong Motion Accelerograph <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> Alarms on the Peak Shock Annunciator indicate a horizontal motion of greater than or equal to 0.12 g or a vertical motion of greater than or equal to 0.08g 	SITE AREA EMERGENCY
2. Sustained winds in excess of design levels experienced or projected MODES 1, 2, 3, & 4	Sustained winds 150 mph OR GREATER experienced or projected	SITE AREA EMERGENCY
3. NOT USED		

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
4. Earthquake greater than or equal to OBE levels ALL MODES	<ul style="list-style-type: none"> Confirmed earthquake which activates Event Indicator on the Strong Motion Accelerograph <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> Alarms on the Peak Shock Annunciator indicate a horizontal motion of greater than or equal to 0.06 g or a vertical motion of greater than or equal to 0.04g 	ALERT
5. Tornado striking facility ALL MODES	Tornado visually detected striking structures within the Protected Area or Switchyard	ALERT
6. Hurricane winds near design basis level experienced or projected ALL MODES	Hurricane winds 120 mph OR GREATER experienced or projected	ALERT
7. Flood near design levels ALL MODES	Flood in the Lake Anna Reservoir with indicated level - greater than 263 feet MSL	ALERT

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
8. Earthquake detected ALL MODES	Confirmed earthquake which activates the Event Indicator on the Strong Motion Accelerograph	NOTIFICATION OF UNUSUAL EVENT
9. Tornado within Protected Area or Switchyard ALL MODES	Tornado visually detected within Protected Area or Switchyard	NOTIFICATION OF UNUSUAL EVENT
10. Hurricane force winds projected onsite within 12 hours ALL MODES	<ul style="list-style-type: none"> Confirmation by Weather Center that hurricane force winds (greater than 73 mph) projected onsite within 12 hours 	NOTIFICATION OF UNUSUAL EVENT
11. 50 year flood ALL MODES	Flood in the Lake Anna Reservoir with indicated level - greater than 254 feet MSL	NOTIFICATION OF UNUSUAL EVENT

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EPIP-1.01	EMERGENCY ACTION LEVEL TABLE (TAB M) MISCELLANEOUS ABNORMAL EVENTS	42
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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
1. Any major internal or external events which singly or in combination cause massive damage to station facilities or may warrant evacuation of the public ALL MODES	Shift Manager/Station Emergency Manager judgement	GENERAL EMERGENCY
2. Station conditions which may warrant notification of the public near the site ALL MODES	Shift Manager/Station Emergency Manager judgement	SITE AREA EMERGENCY
3. Station conditions which have the potential to degrade or are actually degrading the level of safety of the station ALL MODES	Shift Manager/Station Emergency Manager judgement	ALERT

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<u>CONDITION/APPLICABILITY</u>	<u>INDICATION</u>	<u>CLASSIFICATION</u>
<p>4. Station conditions which warrant increased awareness of state and/or local authorities</p> <p>ALL MODES</p>	<p>Shift Manager/Station Emergency Manager judgement that any of the following exist:</p> <ul style="list-style-type: none"> Unit shutdown is other than a controlled shutdown <p><u>OR</u></p> <p>Unit is in an uncontrolled condition during operation</p> <p><u>OR</u></p> <p>A condition exists which has the potential for escalation and therefore warrants notification</p>	<p>NOTIFICATION OF UNUSUAL EVENT</p>

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Conduct a turnover between the onshift and relief SEM in accordance with the following checklist. Use placekeeping aid at left of item, "____", to track completion.

- ____ 1. Determine the status of primary responder notification.
- ____ 2. Determine the status of "Report of Emergency to State and Local Governments," EPIP-2.01, Attachment 2. Get completed copies if available.
- ____ 3. Determine status of the "Report of Radiological Conditions to the State," EPIP-2.01, Attachment 3. Get completed copy if available.
- ____ 4. Determine status of Emergency Notification System (ENS) communications and completion status of NRC Event Notification Worksheet (EPIP-2.02 Attachment 1).
- ____ 5. Review classification and initial PAR status.
- ____ 6. Review present plant conditions and status. Get copy of Critical Safety Functions form.
- ____ 7. Review status of station firewatches and re-establish if conditions allow.
- ____ 8. Determine readiness of TSC for activation.
- ____ 9. After all information is obtained, transfer location to TSC. (Consider direct transfer of State & local notifications to LEOF/CEOF.)
- ____ 10. Call the Control Room and assess any changes that may have occurred during transition to the TSC.
- ____ 11. When sufficient personnel are available, the relief SEM is to assume the following responsibilities from the onshift Station Emergency Manager:
 - a. Reclassification.
 - b. Protective Action Recommendations until LEOF activated.
 - c. Notifications (i.e., state, local, & NRC). Upon LEOF activation, transfer notification responsibilities except for the NRC ENS.
 - d. Site evacuation authorization.
 - e. Emergency exposure authorization.
 - f. Command/control of onsite response.
- ____ 12. Formally relieve the Interim SEM and assume control in the TSC. Announce name and facility activation status to facility.

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This attachment provides procedural guidance for controlling selected emergency response actions when their implementation would have adverse results. Station Emergency Manager (SEM) approval is required before any required action is postponed, suspended or modified. The guidance below is not all-inclusive.

UNANTICIPATED HAZARD EXISTS (e.g., security event, tornado or toxic release):

IF notifying off-duty augmentation could create a safety hazard for personnel coming to the station, THEN consider the following alternatives:

- Station Security (if available) can be directed to notify off-duty personnel to report to the remote mustering area (Louisa Fire Training Center).
- Corporate Security, at 804-273-3161, can be directed to notify off-duty personnel to report to the remote mustering area (Louisa Fire Training Center).
- Corporate Security, at 804-273-3161, can be directed to notify corporate emergency response organization only using CPIP-3.4, INNSBROOK SECURITY SUPPORT.
- Notifications can be deferred until hazardous conditions are resolved.

IF implementation of emergency response actions could compromise Security Plan response strategies, THEN consider postponing or suspending emergency response actions until threat has been resolved, e.g., on-site announcement directing assembly and emergency response facility activation, pager activation and call-out per EPIP-3.05, AUGMENTATION OF EMERGENCY RESPONSE ORGANIZATION, dispatch of Security Team members to the LEOF per EPIP-3.04, ACTIVATION OF LOCAL EMERGENCY OPERATIONS FACILITY, and staging of road blocks per EPIP-5.04, ACCESS CONTROL.

IF assembling on-site personnel for accountability or activation of emergency response facilities could endanger plant personnel, THEN consider postponing emergency assembly until hazardous conditions are resolved. Corporate Security, at 804-273-3161, can be directed to notify corporate emergency response organization only using CPIP-3.4, INNSBROOK SECURITY SUPPORT. Personnel in unaffected areas on-site can be notified selectively.

IF primary ingress/egress route is NOT available, THEN evaluate alternate route for use during site evacuation or off-duty augmentation (e.g., access via Dyke 1).

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ANTICIPATED SITUATION (e.g., forecasted severe weather or grid disturbance):

IF all or part of the ERO has been staged in anticipation of a predicted event, THEN notify Security to omit performance of augmentation notification (as described in EPIP-3.05, AUGMENTATION OF EMERGENCY RESPONSE ORGANIZATION).

IF adequate controls have been established to continually account for personnel staged in anticipation of a predicted event, THEN notify Security to omit performance of initial accountability (as described in EPIP-5.03, PERSONNEL ACCOUNTABILITY).

IF a decision has been made to staff the Central EOF in lieu of the LEOF, THEN notify Security that performance of EPIP-3.04, ACTIVATION OF LOCAL EMERGENCY OPERATIONS FACILITY, is not required.

IF environmental conditions are hazardous, THEN consult with Security Team Leader about suspending procedural requirements for staging road blocks (IAW EPIP-5.04, ACCESS CONTROL).