



**Admin Task JPM A1
PVNGS JOB PERFORMANCE MEASURE**

JPM BASIS INFORMATION

TASK: 1270050401 Perform A Power Ascension Above 20%
 TASK STANDARD: The Power ascension rate limit has been determined. The power ascension has been halted/reduced. The max power allowed has been determined.
 K/A: 2.1.23 K/A RATING: RO: 3.9 SRO: 4.0
 APPLICABLE POSITION(S): SRO/RO VALIDATION TIME: 20 min.
 REFERENCES: 40OP-9ZZ05, Power Operations, Revision 56
 SUGGESTED TESTING ENVIRONMENT: SIMULATOR X PLANT

APPROVAL

DEVELOPER: Joe Allison TECH REVIEW:
 REVISION DATE: 6/21/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR PLANT
 TESTING METHOD: SIMULATE PERFORM

EVALUATION

EXAMINEE NAME: _____
 (print)
 EVALUATOR NAME: _____
 (print)
 SATISFACTORY UNSATISFACTORY
 Time Start Time Stop
 REMEDIAL TRAINING REQUIRED? YES NO



**Admin Task JPM A1
PVNGS JOB PERFORMANCE MEASURE**

1. SIMULATOR SETUP:

A. IC#: The simulator is not specifically needed for this JPM.

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	TAG	TITLE	VALUE	TIME DELAY	RAMP RATE
	N/A				

C. SPECIAL INSTRUCTIONS:

- Ensure that a **marked up copy** of 40OP-9ZZ05 is available with prerequisite steps and steps 5.3.1 thru 5.3.42 marked as completed. Circle step 5.2.7 indicating incomplete.

D. REQUIRED CONDITIONS:

- None

2. SPECIAL TOOLS/EQUIPMENT:

- **Blank copy** of 40OP-9ZZ05, Appendix J
- **Marked up copy** of 40OP-9ZZ05 is available with prerequisite steps and steps 5.3.1 through 5.3.42 marked as completed. Step 5.2.7 circled.
- Calculator



Admin Task JPM A1
PVNGS JOB PERFORMANCE MEASURE

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The following plant conditions exist:

- The Plant has begun initial power ascension following a 30-day refueling outage.
- The Power ascension has been on hold for 2 days at 70% to allow B Main Feed Pump repairs.
- B Main Feed Pump has just been placed in service. Reactor Engineering has completed testing and Power ascension to 90% is planned.
- The power ascension ramp rate OAP is NOT available.
- The prerequisites of 40OP-9ZZ05, Power Operations are complete with the exception of 5.2.7, which requires reevaluation.
- Steps 5.3.1 through 5.3.42 of 40OP-9ZZ05 are complete.

The CRS has directed you to start at step 5.3.4 of 40OP-9ZZ05, perform Appendix J to monitor the power ascension to include the following:

1. Determine the most limiting loading rate for Power changes per step 5.2.7.
2. Monitor the power ascension and log data in accordance with Appendix J.
3. Following each data entry, determine if the power ascension rate is within limits and guidelines.

Note: 2nd verification is not required for this JPM. The examiner will provide actual power level.

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.



Admin Task JPM A1
PVNGS JOB PERFORMANCE MEASURE

- If this is the first JPM of the set, then ensure the examinee has been briefed IAW NUREG-1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Manager of in-plant JPM performance.

SAFETY CONSIDERATIONS:

- None



**Admin Task JPM A1
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
1.	Obtain 40OP-9ZZ05, Power Operations, Appendix J	Obtains 40OP-9ZZ05, Power Operations and Appendix J, Power Ascension Ramprate Data Sheet.

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
2. *	Determines most limiting rate for Power changes	Determines most limiting rate for Power changes to be 3.0% per hour per Appendix A – Fuel Preconditioning Guidelines.

EVALUATOR NOTE: Appendix C – Turbine Load Changes above 35% have no load change limit.

If requested CUE: Reactor Engineering recommends Appendix A guidelines..

Inform CUE : The reactivity briefing has been completed and the increase in power will be by a 4 gpm dilution rate with power change estimated to be approximately 2 % per hour. The PO and SO will control the dilution and turbine load increase.

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



**Admin Task JPM A1
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
3.	Enters initial data.	Enters the following data: Date/: Current Date Power Ascension Rate Limit 2.5% (most limiting – 0.5% = 3.0% - 0.5%) Max Power 72.5% (73% max limit) Actual Power 70%: Performed by: Examinee’s initials Verified by: (Not required for this JPM) When requested CUE: Actual power is 70%.

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
4.	Logs data and determines power ascension status.	Inform CUE: A 4 gpm dilution has commenced and power is increasing. 15 minutes has elapsed and power is now at 70.6%. Determine the power ascension status. Logs data and determines that the power ascension is acceptable (below target and max allowed limit). When requested CUE: I understand power ascension is acceptable. (note: examinee may state that the power ascension rate is greater that what was predicted during the reactivity briefing- if so, state that the dilution will continue at the current rate)

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



**Admin Task JPM A1
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
5.	Logs data and determines power ascension status.	<p>Inform CUE: Another 15 minutes has elapsed and power is now at 71.3%. Determine the power ascension status.</p> <p>Logs data and informs the CRS that the power ascension rate is below the maximum allowed limit (Examinee may state that the rate exceeds 15 minute target rate).</p> <p>When requested CUE: I understand that the power ascension rate is below the maximum allowable limit (but exceeds the 15 minute target rate). Continue with the power increase.</p> <p>EVALUATOR NOTE: The operator may indicate that he would not continue at this point. The intent is to have the operator continue with the power ascension.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
6. *	Logs data and determines power ascension status.	<p>Inform CUE: Another 15 minutes has elapsed and power is now at 72.3%. Determine the power ascension status.</p> <p>Examinee informs the CRS that the power ascension must stop or be reduced to prevent exceeding Max Power Allowed for the hour.</p> <p>When requested CUE: I understand that the power ascension is excessive. The power ascension will be halted.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



**Admin Task JPM A1
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
7.	Logs data and determines power ascension status.	<p>Inform CUE: Another 15 minutes has elapsed and power is now at 72.5%. Determine the power ascension status.</p> <p>Informs the CRS that power ascension ramprate equals the Max Power Allowed.</p> <p>When requested CUE: I understand that the Avg. ramprate equals the guideline target limit.</p>
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
8. *	Logs data and determines new Max Power Allowable limit.	<p>Inform CUE: Determine the new Max power limit allowed for the next 15 minute interval.</p> <p>Determines the new Max Power Allowed to be 73.1</p> <p>When requested CUE: I understand the new Max Power Allowed limit is 73.1 % .</p> <p>Inform CUE: Another operator will complete Appendix J.</p>
SAT _____ UNSAT _____ (UNSAT requires comments)		

NORMAL TERMINATION POINT

COMMENTS:



**Admin Task JPM A1
PVNGS JOB PERFORMANCE MEASURE**

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
00	04/20/01	6	Original
01	06/21/01	6	Incorporated NRC request to move Inform CUEs to enhance Examiner use.

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



Admin Task JPM A1
PVNGS JOB PERFORMANCE MEASURE

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The following plant conditions exist:

- The Plant has begun initial power ascension following a 30-day refueling outage.
- The Power ascension has been on hold for 2 days at 70% to allow B Main Feed Pump repairs.
- B Main Feed Pump has just been placed in service. Reactor Engineering has completed testing and Power ascension to 90% is planned.
- The power ascension ramp rate OAP is NOT available.
- The prerequisites of 40OP-9ZZ05, Power Operations are complete with the exception of 5.2.7, which requires reevaluation.
- Steps 5.3.1 through 5.3.42 of 40OP-9ZZ05 are complete.

The CRS has directed you to start at step 5.3.4 of 40OP-9ZZ05, perform Appendix J to monitor the power ascension to include the following:

1. Determine the most limiting loading rate for Power changes per step 5.2.7.
2. Monitor the power ascension and log data in accordance with Appendix J.
3. Following each data entry, determine if the power ascension rate is within limits and guidelines.

Note: 2nd verification is not required for this JPM. The examiner will provide actual power level.

SAFETY CONSIDERATIONS:

- None



Admin Task JPM A2
PVNGS JOB PERFORMANCE MEASURE

JPM BASIS INFORMATION

TASK: 1250140201 Respond to excessive Steam Generator tube leakage
TASK STANDARD: Respond to excessive Steam Generator tube leakage-Determine the leakrate.
K/A: 42037AA212 K/A RATING: RO: 3.3 SRO: 4.1
K/A: 2.1.33 K/A RATING: RO: 3.4 SRO: 4.0
APPLICABLE POSITION(S): RO/SRO VALIDATION TIME: 15 minutes
REFERENCES: 40AO-9ZZ02, Excessive RCS Leakrate Appendix A, Revision 6
SUGGESTED TESTING ENVIRONMENT: SIMULATOR X PLANT

APPROVAL

DEVELOPER: Joe Allison TECH REVIEW:
REVISION DATE: 4/25/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR PLANT
TESTING METHOD: SIMULATE PERFORM

EVALUATION

EXAMINEE NAME: _____
(print)
EVALUATOR NAME: _____
(print)
SATISFACTORY UNSATISFACTORY
Time Start Time Stop
REMEDIAL TRAINING REQUIRED? YES NO
)



Admin Task JPM A2
PVNGS JOB PERFORMANCE MEASURE

1. SIMULATOR SETUP:

A. IC# : Any at power IC (20 preferred)

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	IMF TH06A 2.5	SG #1 Tube leak of approximately 25 gpm.
2.		
3.		
4.		

C. SPECIAL INSTRUCTIONS:

- Allow the simulator to run for approximately 5 minutes and **verify** that any Reset-induced leak rate is cleared.
- Insert malfunction and let the simulator run for approximately 10 minutes.
- Acknowledge all alarms including RMS

D. REQUIRED CONDITIONS:

- None

2. SPECIAL TOOLS/EQUIPMENT:

- Calculator



**Admin Task JPM A2
PVNGS JOB PERFORMANCE MEASURE**

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

A Steam Generator tube leak exists.

40AO-9ZZ02, Excessive Leak Rate has been entered.

The CRS instructs you to:

- 1. Calculate the leak rate using Appendix A, 15 minute Leak Rate Calculation.**
 - **Another operator will address RMS alarms.**
- 2. (SRO only) Determine any applicable Tech Spec action(s)**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG-1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Manager of in-plant JPM performance.

SAFETY CONSIDERATIONS:

- None



**Admin Task JPM A2
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
1.	Ensure Tc is constant ($\pm 1^\circ\text{F}$).	Examinee verifies Tc is constant. If requested CUE: TC is 554°F and constant.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.	<u>Check</u> that pressurizer pressure is stable between 2235 psia and 2265 psia.	Examinee verifies pressurizer pressure is stable and between 2235 psia and 2265 psia. If requested CUE: Pressurizer pressure is 2250 psia and stable.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
3.	<u>Ensure</u> Chemistry is NOT drawing samples from the RCS or CVCS.	Examinee simulates contacting Chemistry. When requested CUE: The RCS and CVCS are not being sampled at this time.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
4.	Ensure that ONE of the following conditions exist: <ul style="list-style-type: none"> • Letdown is aligned to the VCT • Letdown is isolated 	Examinee verifies Letdown is aligned to the VCT (current lineup). If requested CUE: letdown is aligned to the VCT.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**Admin Task JPM A2
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
5.	Ensure that ONE of the following conditions exist: <ul style="list-style-type: none"> Charging pump suction is aligned to the VCT. Charging pumps are stopped. 	Examinee verifies charging pump suction is aligned to VCT (Current lineup). If requested CUE: Charging pump suction is aligned to the VCT.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
6. *	Place CHN-FIC-210X, Reactor Makeup Water to VCT, in "MANUAL" with zero output.	Examinee places CHN-FIC-210X, in "MANUAL" with zero output. If requested CUE: CHN-FIC-210X is in "MANUAL" with zero output.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
7. *	Place CHN-FIC-210Y, Boric Acid Makeup to VCT, in "MANUAL" with zero output.	Examinee places CHN-FIC-210Y in "MANUAL" with zero output. If requested CUE: CHN-FIC-210Y is in "MANUAL" with zero output.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**Admin Task JPM A2
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
8.	Place CHN-HS-527, Make-up to Charging Pumps (VCT Bypass) Valve, in "CLOSED".	Examinee places CHN-HS-527, Make-up to Charging Pumps (VCT Bypass) Valve, in "CLOSED". If requested CUE: CHN-HS-527 indicates green light on, red light off.

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
9. *	When CHN-UV-527 indicates closed, Then place CHN-HS-210, Makeup Mode Select Switch, in "MANUAL".	Examinee verifies CHN-UV-527 is closed, then places CHN-HS-210 in "MANUAL". If requested CUE: CHN-UV-527 is closed and CHN-HS-210 is in "MANUAL".

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



**Admin Task JPM A2
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
10.	Record both of the following using Attachment A-1, Leak rate data sheet: <ul style="list-style-type: none"> • Start Time • Initial Data 	Examinee records appropriate start time and initial data on Attachment A-1. If requested CUE: Pzr Level is 50% VCT Level is 49% T-AVG is 580°F

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
11.	When 15 minutes have elapsed or VCT level has lowered to 15%, THEN Record both the following using Attachment A-1, Leak Rate Data Sheet: <ul style="list-style-type: none"> • Stop Time • Final Data 	Examinee records appropriate stop and final data on Attachment A-1. If requested CUE: 15 minutes has elapsed. Pzr Level is 50% VCT Level is 39% T-AVG is 580°F

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



**Admin Task JPM A2
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
12. *	Calculate the leak rate using Attachment A-1, Leak Rate Data Sheet.	<p>Using Simulator: Examinee determines leak rate to be 26.9 gpm \pm 20% or 5 gpm.</p> <p>Note: Leak rates based on actual Simulator values may vary from this value but should be within \pm 20% of the actual ERFDADS calculated value.</p> <p>No Simulator: If examinee determines the leak rate based on the CUEs provided in this JPM, his answer should be 26.9 \pm 1 gpm.</p> <p>Inform CUE: Another operator will complete Appendix A.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
13. *	(SRO Only) Determine Tech Spec action.	<p>Examinee determines Tech Spec 3.4.14 Condition A, Action A.1 and Condition B, Action B.1 and B.2. Be in Mode 3 in 6 hours and Mode 5 in 36 hours.</p> <p>When requested CUE: I understand be in Mode 3 in 6 hours and Mode 5 in 36 hours</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

NORMAL TERMINATION POINT

COMMENTS:



**Admin Task JPM A2
PVNGS JOB PERFORMANCE MEASURE**

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
0	04/25 /01	6	New JPM.

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



**Admin Task JPM A2
PVNGS JOB PERFORMANCE MEASURE**

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

A Steam Generator tube leak exists.

40AO-9ZZ02, Excessive Leak Rate has been entered.

The CRS instructs you to:

- 1. Calculate the leak rate using Appendix A, 15 minute Leak Rate Calculation.**
 - **Another operator will address RMS alarms.**
- 2. (SRO only) Determine any applicable Tech Spec action(s)**

SAFETY CONSIDERATIONS:

- None



SRO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE

ADMIN TASK BASIS INFORMATION

TASK: 1290620402 Applies Maintenance Rule Requirements
TASK STANDARD: Review PCRIM for risk assessment and perform follow-up work control actions.
K/A: 2.2.17 K/A RATING: RO: 2.3 SRO: 3.5
APPLICABLE POSITION(S): SRO VALIDATION TIME: 15 minutes
REFERENCES: 30DP-9MT03 Assessment and Management of Risk when Performing Maintenance in Modes 1-4, Revision 1
SUGGESTED TESTING ENVIRONMENT: SIMULATOR _____ PLANT X

APPROVAL

DEVELOPER: Joe Allison TECH REVIEW:
REVISION DATE: 5-1-01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR _____ PLANT _____
TESTING METHOD: SIMULATE _____ PERFORM _____

EVALUATION

EXAMINEE NAME: _____ (print)
EVALUATOR NAME: _____ (print)
SATISFACTORY _____ UNSATISFACTORY _____
Time Start _____ Time Stop _____
REMEDIAL TRAINING REQUIRED? YES _____ NO _____



**SRO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE**

1. SIMULATOR SETUP:

A. IC# : N/A

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	N/A	

C. SPECIAL INSTRUCTIONS:

- None

D. REQUIRED CONDITIONS:

- None

2. SPECIAL TOOLS/EQUIPMENT:

- Copy 30DP-9MT03, Rev. 1 with color copy of Appendix A, PCRM Tables 1 and 2.
- Unit 2 “Schedule Tracker for Week of 05/07/01” (Located in Vista under All Public Folders/ Palo Verde/ POD/ FINAL SCHEDULES (T-3)/ FINAL_SCHD_050701, page 11 of 149).



**SRO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE**

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

Given the following conditions:

- **Unit 2 is at 100% power.**
- **Workday is Saturday, night shift, May 12th.**
- **The following work listed on the Schedule Tracker for Week of 5/7/01, Cycle 32, Week 2, (A) Train, is IN PROGRESS:**
 - **High rate Blowdown**
 - **“A” Charging Pump Pulsation Dampener PM.**
- **NNN-D11 has tripped on a ground fault.**

As the CRS you are directed to:

Assess and manage risk for emergent conditions in accordance with Section 3.3 of 30DP-9MT03, “Assessment and Management of Risk When Performing Maintenance in Modes 1-4,” by determining the following:

- **Risk Management Action Level**
- **Actions regarding equipment.**

The STA will perform all Technical Specification reviews and operability determinations.

Another SRO will perform the AOP actions for the loss of NNN-D11.

The evaluator will provide a color copy of PCRIM Tables and Schedule Tracker.



**SRO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG-1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Manager of in-plant JPM performance.
- **Provide examinee with the following:**
 - **30DP-9MT03, "Assessment and Management of Risk When Performing Maintenance in Modes 1-4"**
 - **color copy of Appendix A, PCRAM Tables 1 and 2 and**
 - **Unit 2 Cycle 32 Week 2 Schedule Tracker For Week of 05/07/01.**

SAFETY CONSIDERATIONS:

- None



**SRO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
1.	*	Evaluated NNN-D11 to be within scope of "a(4)" using Appendix G.
		Determines NNN-D11 to be within the scope of a(4). When requested Cue: NNN-D11 is within the scope of "(a)(4)".
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.	*	Evaluates the risk associated with NNN-D11 out of service using Appendix A, PCRM Table 2.
		Determines Risk Action Level as "Red". When requested CUE: Risk Action Level is "Red".
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
3.	*	Using Appendix A or Appendix D guidance determines actions required for "Red" action level.
		<ul style="list-style-type: none"> • Stop all new work (listed on schedule) • Restore SSC equipment: (Critical to state restoration of SSC equipment. May specifically discuss NNN-D11, or "A" Charging pump) (Examinee may also include actions to notify VP Nuclear Production, SSM, UDL and PRA) When requested CUE: All scheduled work has stopped. Maintenance and Engineering have initiated work to restore NNN-D11.
SAT _____ UNSAT _____ (UNSAT requires comments)		

NORMAL TERMINATION POINT

COMMENTS:



**SRO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE**

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
1	3/9/99	6	Revised for 1999 Initial SRO Upgrade Exam.
2	8/12/99	6	Corrected grammatical errors, changed role assignment to Shift Manger, enhanced initiating CUE..
2	5/1/01	3	Revised for 2001 Initial SRO Upgrade Exam. Corrected to new procedure revision.

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



**SRO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE**

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

Given the following conditions:

- Unit 2 is at 100% power.
- Workday is Saturday, night shift, May 12th.
- The following work listed on the Schedule Tracker for Week of 5/7/01, Cycle 32, Week 2, (A) Train, is IN PROGRESS:
 - High rate Blowdown
 - “A” Charging Pump Pulsation Dampener PM.
- NNN-D11 has tripped on a ground fault.

As the CRS you are directed to:

Assess and manage risk for emergent conditions in accordance with Section 3.3 of 30DP-9MT03, “Assessment and Management of Risk When Performing Maintenance in Modes 1-4,” by determining the following:

- Risk Management Action Level
- Actions regarding equipment.

The STA will perform all Technical Specification reviews and operability determinations.

Another SRO will perform the AOP actions for the loss of NNN-D11.

The evaluator will provide a color copy of PCRIM Tables and Schedule Tracker.

SAFETY CONSIDERATIONS:

- None



RO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE

JPM BASIS INFORMATION

TASK: 1290310301 Perform a Tech Review of a Permit
TASK STANDARD: Tech Review a Permit and determine three errors
K/A: 2.2.13 K/A RATING: RO: 3.6 SRO: 3.8
APPLICABLE POSITION(S): RO VALIDATION TIME: 20 minutes
REFERENCES: 40DP-9OP29, Permit and Tagging Process
SUGGESTED TESTING ENVIRONMENT: SIMULATOR X PLANT

APPROVAL

DEVELOPER: Joe Allison TECH REVIEW:
REVISION DATE: 5/10/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR PLANT
TESTING METHOD: SIMULATE PERFORM

EVALUATION

EXAMINEE NAME: _____
(print)
EVALUATOR NAME: _____
(print)
SATISFACTORY UNSATISFACTORY
Time Start Time Stop
REMEDIAL TRAINING REQUIRED? YES NO



**RO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE**

1. SIMULATOR SETUP:

A. IC# : Any at power IC (20 preferred)

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.		
2.		
3.		
4.		

C. SPECIAL INSTRUCTIONS:

- None

D. REQUIRED CONDITIONS:

- None

2. SPECIAL TOOLS/EQUIPMENT:

- Copy of Test Permit 30706 Permit Details and Tag Assignment Sheet.
- Copy of Work Order WO# 2324061 Cover page



**RO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE**

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

Unit 1 is 100% power

The CRS has directed you to perform Tech Review of Permit 30706.

- **Identify three (3) errors (Non-clerical – not typos).**
- **Determine any required action (s) that need to be done as a result of these 3 errors.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG-1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Manager of in-plant JPM performance.

SAFETY CONSIDERATIONS:

- None



**RO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
1.	Reviews Permit or Work Order to determine scope of work to be performed.	Examinee reviews Permit or Work Order and determines work scope to be Remove and rebuild Control Bldg sump pump 1EOWNP07A
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.	* Reviews Tag Assignment Sheet and Prints to verify Permit adequacy for job scope.	Examinee determines the following inaccuracies/inadequacies. <ul style="list-style-type: none"> • Tag 2 is the wrong circuit breaker (breaker is for the “B” pump) • Tag 3 has wrong position (OPEN) for the discharge valve. • Tag 6 has right valve but wrong Unit (Unit 2)
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
3.	* Examinee returns Permit for correction by the Preparer	Examinee returns Permit for correction (i.e. deficiencies noted shall not be corrected by the Tech Reviewer).
SAT _____ UNSAT _____ (UNSAT requires comments)		

NORMAL TERMINATION POINT

COMMENTS:



**RO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE**

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
0	05/10 /01	6	New JPM.

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



**RO Admin Task JPM A3
PVNGS JOB PERFORMANCE MEASURE**

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

Unit 1 is 100% power

The CRS has directed you to perform Tech Review of Permit 30706.

- **Identify three (3) errors (Non-clerical – not typos).**
- **Determine any required action (s) that need to be done as a result of these 3 errors.**

SAFETY CONSIDERATIONS:

- None



SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE

ADMIN TASK BASIS INFORMATION

TASK: 1240100202 Classify events requiring emergency plan implementation
1240100302 Direct an emergency response as the emergency coordinator (EC)
1240100402 Determine protective action recommendations (PAR)
TASK STANDARD: An Alert is declared within 15 minutes; form EP-0541 is filled out, Notification directed within 15 minutes of classification
K/A: 2.4.38 K/A RATING: SRO: 4.0
APPLICABLE POSITION(S): SRO VALIDATION TIME: 15 minutes
REFERENCES: EPIP-01, Satellite Technical Support Center Actions Rev. 8

SUGGESTED TESTING ENVIRONMENT: SIMULATOR X PLANT
TIME CRITICAL

APPROVAL

DEVELOPER: Joe Allison TECH REVIEW:
REVISION DATE: 6/20/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR PLANT
TESTING METHOD: SIMULATE PERFORM

EVALUATION

EXAMINEE NAME: (print)
EVALUATOR NAME: (print)
SATISFACTORY UNSATISFACTORY
Time Start Time Stop
REMEDIAL TRAINING REQUIRED? YES NO



SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE

1. SIMULATOR SETUP:

A. IC# : 18, At the end of NRC scenario #1.

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	NRC LOIT Scenario #1	LOCA and Loss of Containment Spray

C. SPECIAL INSTRUCTIONS:

- Ensure the following:

All alarms are acknowledged on RMS.

The simulator is in FREEZE following completion of Scenario #1

D. REQUIRED CONDITIONS:

High and Alert Alarms on RU-16 and Alert Alarm on RU-1

SIAS/CIAS actuated with HPSI injection

RVLMS above 21%

Containment Spray in service

2. SPECIAL TOOLS/EQUIPMENT:

- Form EP-0541 available, blocks 1, 4 and 6 complete.
- A watch or clock to time event classification and notifications.



**SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE**

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The following plant conditions apply:

- **A plant event resulting in a Loss of Coolant and loss of Containment Spray has occurred. Containment Spray has been restored.**

Based on current plant conditions, perform all On-shift Emergency Coordinator duties for this event until properly relieved.

- **The current time for the purpose of this task is night shift during the normal work week.**
- **This is a time critical JPM.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- This JPM has two (2) Time Critical elements. The first is to classify the event within 15 minutes from the time the initiating cue is given, the second is to initiate/direct the NAN notification by the STSC Communicator within 15 minutes from the time the classification is made.
- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG-1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Manager of in-plant JPM performance.

SAFETY CONSIDERATIONS:

- None



**SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
1.	Obtain Procedure EPIP-01	EPIP-01 obtained.
		<p>Note to evaluator: The critical time to classify the event is 15 minutes from the time the examinee has received the initiating cue.</p> <p>START TIME: _____</p>
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.	* Determines EAL Level currently being met or exceeded.(4.1)	Uses Appendix A and determines EAL as Loss of RCS Barrier (1-6, RCS leak rate >available makeup capacity as indicated by a loss of RCS subcooling).
		<p>Note to evaluator: This step may be performed at Step 4.</p> <p>If requested CUE: RU-16 Channel 1 is in High Alarm. RU-1 Channel 1 and 3 are in Alert. CET subcooling indicates <24 degrees. HPSI injection is occurring.</p> <p>If requested CUE: RU-148 and 149 are stable at 1.2E+3 mrem/hr each</p>
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
3.	Directs the Onshift STA or another EC qualified individual to independently verify EAL determination. (4.1)	Directs the On-shift STA or another EC qualified individual to independently verify EAL determination. If requested CUE: The STA concurs with your determination

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
4. *	Classify the event. (4.1)	Classifies event as an ALERT within 15 minutes of step 1 START TIME. Record CLASSIFICATION TIME: _____ *Total time to classify (Critical ≤15 min) _____ Record NOTIFICATION START TIME: _____ (same as Classification Time above) If requested CUE: The STA concurs with your determination

SAT _____ UNSAT _____ (UNSAT requires comments)

Steps 5 and 6 may be performed in any order

COMMENTS:



**SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
5.	* Completes form EP-0541, Palo Verde NAN Emergency Message Form. (4.2)	<p>Examinee completes steps 3 and 5 of Form EP-0541 as follows:</p> <ul style="list-style-type: none"> • Step 3 ALERT, UNIT 1 Status Code 1-6 • Step 5 NO Radioactive release is in progress. NO Protective Actions are required (see step 7 below) <p><i>After STSC Communicator completes steps 1,4 and 6</i></p> <ul style="list-style-type: none"> • Reviews form for accuracy and signs step 6.
		<p>If requested CUE: The STSC Communicator has arrived in the Unit 1 Control Room.</p>
		<p><i>STSC Communicator(Examiner) provides information for examinee to fill out steps 1,4 and 6 of Form EP-0541.</i></p>
		<p>Inform CUE: Provide the examinee with the EP-0541 form, blocks 1, 4 and 6 information as follows:</p>
		<p><input checked="" type="checkbox"/> This is not a drill</p>
		<p>Wind speed is 6 MPH from 180 degrees</p>
		<p>Authenticator Code LIMA TANGO</p>
		<p>This is John Doe <input checked="" type="checkbox"/> STSC Comm.</p>
		<p>At <input checked="" type="checkbox"/> U-1 STSC</p>
		<p><input checked="" type="checkbox"/> This is not a drill</p>
		<p>Reviews form for accuracy and signs step 6.</p>
SAT	_____	UNSAT
	_____	(UNSAT requires comments)
COMMENTS:		



**SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE**

COMMENTS:



**SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
6.	* Contact Security (CAS) (5.1) Note: In Section 5.1, Procedure actions are in Bold text. Non-bolded text is generally for information only.	Using the telephone or radio contacts CAS and directs the CAS operator to notify the Security Operations Section Leader to complete supplemental notifications and activate the auto dialer. If requested CUE: CAS has been notified.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
7.	Determine appropriate Protective Action Recommendations.(5.1)	Consults Appendix B, Protective Action Recommendations. Protective Actions are NONE Recommended Note to evaluator: Examinee may have previously completed this action since it is information to be included on form EP-0541.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
8. *	Direct the STSC Communicator to complete and transmit the Palo Verde NAN Emergency Message form.(5.1) Note: This step may have been performed at step 5 above.	Directs the STSC Communicator to transmit NAN form within 15 minutes of event CLASSIFICATION TIME in step 4.above. Time STSC Communicator directed: _____ *Total time since NOTIFICATION START TIME (Critical <15 Minutes.) _____ If requested CUE: The STSC Communicator has initiated the NAN Message form

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
9.	Notify Site Manager. (5.1)	Site Manager notified of the Emergency Situation and directed to come to the UNIT 1 Control room to assume the role of On-shift Emergency Coordinator. If requested CUE: Site Manager has been informed to report to the Unit 1 Control Room.

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



**SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
10.	Assemble the Onshift Emergency Response Organization (ERO) staff for an initial briefing in the STSC general area. (5.1)	Assembles ERO staff for briefing. Inform CUE: The Radiation Protection Monitor and Shift Technical Advisor have not yet arrived in the STSC. The briefing can be performed when the ERO staff has assembled in the STSC.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
11. *	Conduct onsite notification using Step 5.1 Flowchart..	As a minimum, step 5.1.5 “Standard Notification” message for ALERT is transmitted over the Unit Evacuation System Note: examinee may direct the following (Recommended unless the EC is fairly certain plant conditions will not deteriorate.): <ul style="list-style-type: none"> • “Assembly Notification”(step 5.1.20) and, • “Accountability Request”(step 5.1.3) If requested CUE: Notifications are complete. Inform CUE: The Site Manager has relieved you as the Emergency Coordinator.
SAT _____ UNSAT _____ (UNSAT requires comments)		

NORMAL TERMINATION POINT

COMMENTS:



**SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE**

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
0	4/17/01	6	New Admin Task JPM
1	6/20/01	6	NRC requested enhancements

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



**SRO Admin Task JPM A5-A
PVNGS JOB PERFORMANCE MEASURE**

**INITIAL CONDITIONS
INFORMATION PRESENTED TO EXAMINEE:**

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The following plant conditions apply:

- **A plant event resulting in a Loss of Coolant and loss of Containment Spray has occurred. Containment Spray has been restored.**

Based on current plant conditions, perform all On-shift Emergency Coordinator duties for this event until properly relieved.

- **The current time for the purpose of this task is night shift during the normal work week.**
- **This is a time critical JPM.**

SAFETY CONSIDERATIONS:

- None



SRO Admin Task JPM A5-B
PVNGS JOB PERFORMANCE MEASURE

ADMIN TASK BASIS INFORMATION

TASK: 1240100202 Classify events requiring emergency plan implementation
1240100302 Direct an emergency response as the emergency coordinator (EC)
1240100402 Determine protective action recommendations (PAR)
TASK STANDARD: An Alert is declared within 15 minutes; form EP-0541 is filled out, Notification directed within 15 minutes of classification
K/A: 2.4.38 K/A RATING: SRO: 4.0
APPLICABLE POSITION(S): SRO VALIDATION TIME: 15 minutes
REFERENCES: EPIP-01, Satellite Technical Support Center Actions, Rev. 8

SUGGESTED TESTING ENVIRONMENT: SIMULATOR X PLANT _____

APPROVAL

DEVELOPER: Joe Allison TECH REVIEW:
REVISION DATE: 6/20/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR _____ PLANT _____
TESTING METHOD: SIMULATE _____ PERFORM _____

EVALUATION

EXAMINEE NAME: _____
(print)

EVALUATOR NAME: _____
(print)

SATISFACTORY _____ UNSATISFACTORY _____

Time Start _____ Time Stop _____

REMEDIAL TRAINING REQUIRED? YES _____ NO _____



**SRO Admin Task JPM A5-B
PVNGS JOB PERFORMANCE MEASURE**

1. SIMULATOR SETUP:

A. IC# : 20, following NRC exam scenario #2

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	NRC LOIT Scenario #2	SGTR and Loss of HPSI

C. SPECIAL INSTRUCTIONS:

- Ensure the following:

All alarms are acknowledged on RMS.

The simulator is in FREEZE following completion of Scenario #2

D. REQUIRED CONDITIONS:

High and Alert Alarms on RU-4

SIAS/CIAS actuated with HPSI injection

SGTR >132 gpm (at Normal Operating Pressure)

2. SPECIAL TOOLS/EQUIPMENT:

- Form EP-0541 available, blocks 1, 4 and 6 complete.
- A watch or clock to time event classification and notifications.



**SRO Admin Task JPM A5-B
PVNGS JOB PERFORMANCE MEASURE**

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The following plant conditions apply:

- **A plant event resulting in a SGTR and loss of HPSI has occurred. Adequate HPSI flow has been restored.**

Based on current plant conditions, perform all On-shift Emergency Coordinator duties for this event until properly relieved.

- **The current time for the purpose of this task is night shift during the normal work week.**
- **This is a time critical JPM.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- This JPM has two (2) Time Critical elements. The first is to classify the event within 15 minutes from the time the initiating cue is given, the second is to initiate/direct the NAN notification by the STSC Communicator within 15 minutes from the time the classification is made.
- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG-1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Manager of in-plant JPM performance.

SAFETY CONSIDERATIONS:

- None



**SRO Admin Task JPM A5-B
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
1.	Obtain Procedure EPIP-01	EPIP-01 obtained.
		Note to evaluator: The critical time to classify the event is 15 minutes from the time the examinee has received the initiating cues.
		START TIME: _____
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
2.	* Determines EAL Level currently being met or exceeded. (4.1)	Uses Appendix A and determines EAL as a ALERT . Basis: Potential Loss of RCS Barrier (1-7 , SGTR > 44gpm). (#also , if subcooling is lost, 1-6 , RCS leak rate > available makeup capacity as indicated by a loss of subcooling).
		Note to evaluator: This step may be performed at step 4.
		#Note to evaluator: Subcooling may or may not be restored when the simulator is placed in FREEZE. The classification should be based on CURRENT plant conditions.
		If requested CUE: RU-4 Channel 1 is in High Alarm.
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



**SRO Admin Task JPM A5-B
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
3.	Directs the On-shift STA or another EC qualified individual to independently verify EAL determination. (4.1)	Directs the On-shift STA or another EC qualified individual to independently verify EAL determination. If requested CUE: The STA concurs with your determination
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
4.	* Classify the event. (4.1)	Classifies event as an ALERT within 15 minutes of step 1 START TIME. Record CLASSIFICATION TIME: _____ *Total time to classify (Critical ≤15 min) _____ Record NOTIFICATION START TIME: _____ (same as Classification Time above) If requested CUE: The STA concurs with your determination.
SAT _____ UNSAT _____ (UNSAT requires comments)		

Steps 5 and 6 may be performed in any order

COMMENTS:



**SRO Admin Task JPM A5-B
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
5.	* Completes form EP-0541, Palo Verde NAN Emergency Message Form. (4.2)	<p>Completes steps 3 and 5 of Form EP-0541 as follows:</p> <ul style="list-style-type: none"> • Sec. #3 ALERT, UNIT 1 Status Code 1-7 (#and 1-6 if no subcooling) • Sec. #5 NO Radioactive release is in progress. NO Protective Actions are required (see step 7 below) <p><i>After STSC Communicator completes steps 1,4 and 6:</i></p> <ul style="list-style-type: none"> • Reviews form for accuracy and signs step 6. <p><i>STSC Communicator(Examiner) provides information for examinee to fill out steps 1,4 and 6 of Form EP-0541.</i></p> <p>Inform CUE: Provide the examinee with the EP-0541 form, blocks 1, 4 and 6 information as follows:</p> <p><input checked="" type="checkbox"/> This is not a drill</p> <p>Wind speed is <u>6</u> MPH from <u>180</u> degrees Authenticator Code <u>LIMA TANGO</u> This is <u>John Doe</u> <input checked="" type="checkbox"/> STSC Comm. At <input checked="" type="checkbox"/> U-1 STSC</p> <p><input checked="" type="checkbox"/> This is not a drill</p> <p>If requested CUE: The STSC Communicator has arrived in the Unit 1 Control Room.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



**SRO Admin Task JPM A5-B
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
6.	* Contact Security (CAS). (5.1) Note: In Section 5.1, Procedure actions are in Bold Text. Non-bolded text is generally for information only.	Using the telephone or radio contacts CAS and directs the CAS operator to notify the Security Operations Section Leader to complete supplemental notifications and activate the auto dialer. If requested CUE: CAS has been notified.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
7.	Determine appropriate Protective Action Recommendations. (5.1)	Consults Appendix B, Protective Action Recommendations. Protective Actions are NONE Recommended Note to evaluator: Examinee may have previously completed this action since it is information to be included on form EP-0541.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**SRO Admin Task JPM A5-B
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
8. *	Direct the STSC Communicator to complete and transmit the Palo Verde NAN Emergency Message form. (5.1) Note: This step may have been performed at step 5 above.	Directs the STSC Communicator to transmit NAN form within 15 minutes of event CLASSIFICATION TIME in step 4.above. Time STSC Communicator directed: _____ *Total time since NOTIFICATION START TIME (Critical <15 Minutes) _____ If requested CUE: The STSC Communicator has initiated the NAN Message form

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
9.	Notify Site Manager. (5.1)	Site Manager notified of the Emergency Situation and directed to come to the UNIT 1 Control room to assume the role of On-shift Emergency Coordinator. If requested CUE: Site Manager has been informed to report to the Unit 1 Control Room.

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



**SRO Admin Task JPM A5-B
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
10.	Assemble the Onshift Emergency Response Organization (ERO) staff for an initial briefing in the STSC general area. (5.1)	Assembles ERO staff for briefing. Inform CUE: The Radiation Protection Monitor and Shift Technical Advisor have not yet arrived in the STSC. The briefing can be performed when the ERO staff has assembled in the STSC.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
11. *	Conduct onsite notification using Step 5.1 Flowchart.	As a minimum, step 5.1.5 “Standard Notification” message for ALERT is transmitted over the Unit Evacuation System Note to evaluator: examinee may direct the following (Recommended unless the EC is fairly certain plant conditions will not deteriorate.): <ul style="list-style-type: none"> • “Assembly Notification”(step 5.1.20) and, • “Accountability Request”(step 5.1.3) If requested Cue: Notifications complete Inform CUE: The Site Manager has relieved you as the Emergency Coordinator.
SAT _____ UNSAT _____ (UNSAT requires comments)		

NORMAL TERMINATION POINT

COMMENTS:



**SRO Admin Task JPM A5-B
PVNGS JOB PERFORMANCE MEASURE**

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
0	4/17/01	6	New Admin Task JPM
1	6/20/01	6	Incorporated NRC comments for enhancement

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



**SRO Admin Task JPM A5-B
PVNGS JOB PERFORMANCE MEASURE**

**INITIAL CONDITIONS
INFORMATION PRESENTED TO EXAMINEE:**

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The following plant conditions apply:

- **A plant event resulting in a SGTR and loss of HPSI has occurred. Adequate HPSI flow has been restored.**

Based on current plant conditions, perform all On-shift Emergency Coordinator duties for this event until properly relieved.

- **The current time for the purpose of this task is night shift during the normal work week.**
- **This is a time critical JPM.**

SAFETY CONSIDERATIONS:

- None



Admin Task JPM A5
PVNGS JOB PERFORMANCE MEASURE

ADMIN TASK BASIS INFORMATION

TASK: 1290240302 Ensure Emergency Notification and Response
1290240301
TASK STANDARD: Perform event notification for a chemical spill
K/A: 2.1.26 K/A RATING: RO: 2.2 SRO: 2.6
K/A: 2.4.43 K/A RATING: RO: 2.8 SRO: 3.5
APPLICABLE POSITION(S): RO VALIDATION TIME: 15 minutes
REFERENCES: 14DP-0FP32, Emergency Notification and Response, Revision 11
SUGGESTED TESTING ENVIRONMENT: SIMULATOR X PLANT

APPROVAL

DEVELOPER: Joe Allison TECH REVIEW:
REVISION DATE: 04/05/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR PLANT
TESTING METHOD: SIMULATE PERFORM X

EVALUATION

EXAMINEE NAME: _____
(print)

EVALUATOR NAME: _____
(print)

SATISFACTORY UNSATISFACTORY

Time Start Time Stop

REMEDIAL TRAINING REQUIRED? YES NO



**Admin Task JPM A5
PVNGS JOB PERFORMANCE MEASURE**

1. SIMULATOR SETUP:

A. IC# : N/A

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	N/A	

C. SPECIAL INSTRUCTIONS:

- If performed in the simulator or a Unit control room, the examinee should locate and simulate use of the actual equipment.

D. REQUIRED CONDITIONS:

- None

2. SPECIAL TOOLS/EQUIPMENT:

- None



**Admin Task JPM A5
PVNGS JOB PERFORMANCE MEASURE**

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The following plant information applies:

- **The Unit 1 Demin operator was assigned to backwash the Condensate Demins.**
- **He reports to your Shift Manager (Unit 1) that the acid day tank has ruptured, and 5 gallons of acid have spilled on the floor near the acid day tank.**
- **NO one else has been informed.**

The Shift Manager directs you to perform the applicable Control Room Actions of 14DP-0FP32, Emergency Notification and Response.

- **The Shift Manager will address event classification and offsite notification per the Emergency Plan.**
- **The STA will address non-Emergency Plan notification using the Event Reporting Manual.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- The examinee should perform the Control Room Actions in section 3.2.2 of 14DP-0FP32 including Appendix C.
- Due to the nature of the procedure layout the examinee may satisfy steps in section 3.2 (Control Room action) by performing some step from steps 2.1, 2.7, or 3.1. If necessary, CUE the examinee that they are to perform Control Room Actions.
- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure examinee has been briefed IAW NUREG-1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Manager of in-plant JPM performance.

SAFETY CONSIDERATIONS:

- None



**Admin Task JPM A5
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
1. *	Notify Security of emergency location, type, and severity. Advise them to contact the Fire Department (3.2.2.1)	Examinee simulates notifying security at extension 4444 with required information and directs Security to contact the Fire Department. When Requested CUE: Security has been notified and they will contact the Fire Department.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.	Determine if Emergency Plan classification is required.	Examinee informs SM or CRS to consider E-Plan classification. When Requested CUE: The Shift Manager will determine the Emergency Plan classification.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
3. *	Activates the Emergency Fire Alarm and makes required Site announcement (3.2.2.1 and Appendix C).	Examinee simulates sounding the Emergency fire Alarm for 15 to 20 seconds and using the emergency paging system makes the site announcement for a chemical spill using Appendix C. When Requested CUE: Site Announcement has been made.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**Admin Task JPM A5
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
4. *	Establish contact with Fire Department on the “Unified Command” radio talk group (3.2.2.1).	Examinee simulates contacting Fire Department on the radio using “Unified Command”. When Requested CUE: Fire Department has been contacted.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
5.	Determine if non-Emergency Plan notifications are required.	Examinee informs the SM or CRS to determine if non-Emergency Plan notifications are required. When Requested CUE: The SM will have the STA evaluate notification requirements. Note: The following Cue is an Emergency Response action: Inform CUE: The Incident Commander is on the radio requesting information on the event.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**Admin Task JPM A5
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
6. *	When the Incident Commander contacts the Control Room on the radio, provide information (3.2.3.1).	<p>Examinee informs the Incident Commander that 5 gallons of acid have been spilled on the floor by the acid day tank.</p> <p>When requested CUE: The Incident Commander has been informed of the hazard and location.</p> <p>Inform CUE: The Incident Commander informs you that the emergency is terminated and makes no other requests.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
7.	Performs completion of Appendix C and announces termination of the event. (3.2.4.1)	<p>Examinee simulates sounding the “All Clear” signal for 15 to 20 seconds and makes the event termination announcement using Appendix C.</p> <p>When Requested CUE: Termination announcement has been completed.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

NORMAL TERMINATION POINT

COMMENTS:



**Admin Task JPM A5
PVNGS JOB PERFORMANCE MEASURE**

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
0	09/02/98	6	New JPM (site importance: 1998 acid spill event)
1	03/26/99	3	Updated to match procedure revision
2	04/05/01	6	Update to reflect current RO task analysis

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



**Admin Task JPM A5
PVNGS JOB PERFORMANCE MEASURE**

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The following plant information applies:

- **The Unit 1 Demin operator was assigned to backwash the Condensate Demins.**
- **He reports to your Shift Manager (Unit 1) that the acid day tank has ruptured, and 5 gallons of acid have spilled on the floor near the acid day tank.**
- **NO one else has been informed.**

The Shift Manager directs you to perform the applicable Control Room Actions of 14DP-0FP32, Emergency Notification and Response.

- **The Shift Manager will address event classification and offsite notification per the Emergency Plan.**
- **The STA will address non-Emergency Plan notification using the Event Reporting Manual.**

SAFETY CONSIDERATIONS:

- None

Facility: PVNGS Unit-1 **Scenario No.:** 1 **Op-Test No.:** 1

Examiners: _____ **Operators:** _____

Initial Conditions: IC-18, 75% power, MOC

High Pressure Safety Injection pump 'B' is Out of Service

Plant Cooling Water pump 'B' is Out of Service

Turnover:

See Attached

Scenario Overview:

1. The crew will repressurize 1B SIT due to a small nitrogen leak.
2. Then the crew will experience a failure of a SG #1 Differential pressure (RCS flow) indicator. This will require the crew to bypass appropriate Reactor Protection System (RPS) bistables and refer to Technical Specifications.
3. Then the crew will respond to a degradation of condenser vacuum. This will require the crew to reduce power and stabilize the plant when source of air in-leakage is terminated.
4. Then the crew will respond to a failed Volume Control Tank (VCT) level transmitter. This will require the crew to return charging pump suction back to the VCT.
5. Then the crew will respond to a Loss of Coolant Accident (LOCA). During this event the crew will be required to manually start Auxiliary Feedwater pumps to supply feedwater to the Steam Generators.
6. Then the crew will respond to a loss of Containment Spray (CS). This will require the crew to implement the Functional Recovery Procedure (FRP) due to a failed Train 'B' valve and a loss of the running CS pump.

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Event No.	Malf. No.	Event Type*	Event Description
		N (PO)	Re-pressurize Safety Injection Tank (SIT) 1B (CRS to direct and PO to perform)
1 T=10	TR04:RCDP DT115D	I (SO)	Channel D SG #1 Differential Pressure (RCS Flow) transmitter fails low. (CRS to refer to Technical Specifications and direct bypassing RPS bistable for RCS low flow trip)
2 T=20	MC01A	R (ALL)	Slow loss of condenser vacuum. Crew to reduce power by boration and/or Control Element Assembly (CEA) insertion. (PO/SO coordinate power reduction, CRS direct power reduction and dispatch AO to investigate)
3 T=35	TR04:CHNL T227	I (PO)	Failure of Volume Control Tank (VCT) level instrument (PO to identify and implement corrective actions to stop boration, CRS to direct plant stabilization following boration addition)
4 T=45	THO1A	M (ALL) C (SO)	Loss of Coolant Accident (LOCA) (Crew recognizes, CRS directs trip) (Critical Task to initiate Auxiliary feedwater) (Critical Task to close RCP seal bleedoff valves)
5 T=55	CP06: SIAP03	C (PO)	A Train Containment Spray (CS) pump trips (PO diagnose) CRS to transition to Functional Recovery Procedure (FRP) and direct actions to restore Containment Spray flow. (Critical Task to restore Train A Containment Spray flow using the A LPSI pump)
T~65			End point = Crew establishes Train B Containment Spray flow

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

LOIT NRC EXAM SCENARIO SUPPLEMENTAL TURNOVER INFORMATION**Scenario # 1****Turnover****Plant conditions:**

The unit is at 75% power and has been for the last five days. Time in core life is 225 EFPD.

Equipment Out of Service:**SG Safety Valves**

The unit is limited to ~ 76% power due to three SG # 1 Safety Valves being declared inoperable, (due to engineering input). . SGE-PSV-575, 576, and 578 are the affected MSSVs. Technical Specification 3.7.1 Condition A required reduction in power and lowering of VOPT trip setpoints. These actions have been completed

HPSI 'B'

High Pressure Safety Injection (HPSI) pump 'B' is out of service for emergent work to replace a pump bearing that failed during its scheduled Surveillance Test 6 hours ago. Maintenance workers expect to finish pump repairs in 14 hours from now. T.S. 3.5.3 Condition B was entered 6 hours ago.

SIT 1B

Safety Injection Tank (SIT) 1B pressure is low due to a small nitrogen leak. T.S. 3.5.1 Condition B was entered one hour ago. No actions have been taken.

PW 'B'

The 'B' Plant Cooling Water pump was removed from service 20 hours ago for scheduled maintenance on the pump motor. Maintenance workers expect to finish pump repairs in 24 hours total time.

The normal, shiftly surveillances are complete

Planned Shift Activities:

- Operations management directs re-pressurizing SIT 1B prior to continuation of other maintenance activities.
- Following shift turnover, you are directed to re-pressurize SIT 1B to the normal pressure band.
- The crew is in 40OP-9ZZ05, Section 6.

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: PVNGS Unit-1 **Scenario No.:** 2 **Op-Test No.:** 2

Examiners: _____ **Operators:** _____

Initial Conditions: IC-20, 100% power, MOC

High Pressure Safety Injection pump 'B' is Out of Service

Plant Cooling Water pump 'B' is Out of Service

Turnover:

See Attached

Scenario Overview:

1. The crew will shift charging pumps to 'B' and 'E' running.
2. Then the crew will experience a loss of the running TC pump with the standby pump failing to automatically start. This will require the crew to manually start the standby pump.
3. Then the crew will experience a failure of RCS-LT-110X (Pressurizer level). This will require the crew to select RCS-LT-110Y as controlling channel and refer to Technical Specifications.
4. Then the crew will experience a small SG Tube Leak. This will require the crew to quantify leakage, start a unit shutdown, and refer to Technical Specifications.
5. Then the crew will experience high vibrations on 'B' Main Feed pump causing the crew to manually trip the pump. This will result in a Reactor Power Cutback (Plant Event). This will require the crew to stabilize the unit, continue the downpower, and refer to Technical Specifications.
6. Then the crew will experience a SG Tube Rupture (degradation of SGTL). This will require the crew to initiate a unit trip and enter the EOP network.
7. Then the crew will experience a loss of HPSI injection. This will require the crew to implement the Functional Recovery Procedure (FRP) to restore HPSI flow.

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Event No.	Malf. No.	Event Type*	Event Description
		N (PO)	Shift charging pumps to 'B' and 'E' running.
1 T = 5	CP06:TCNP0 1A CP05:TCNP0 1B	C (SO)	'A' TC pump trips with a failure of the 'B' TC pump to automatically start (SO to diagnose and manually start 'B' TC pump and CRS to direct actions)
2 T = 10	TR04:RCALT 110X	I (PO)	RCA-LT-110X fails low. (PO to diagnose and select RCA-LT-110Y as controlling channel and CRS to refer to Technical Specifications)
3 T = 15	TH06A	R (ALL)	Small #1 SG Tube leak. Crew to quantify leakage and reduce power by boration and/or Control Element Assembly (CEA) insertion. (PO/SO diagnose leakage and quantify, then coordinate power reduction, CRS direct power reduction and refer to Technical Specifications)
4 T = 35	FW15B	C (SO)	High Vibrations of 'B' Main Feed pump requiring a manual trip of the pump resulting in a Reactor Power Cutback. (SO to identify, PO to stop boration if requested, CRS to direct plant stabilization and refer to Technical Specifications)
5 T = 40	TH06A	M (ALL)	Steam Generator Tube Rupture (SGTR) (Crew recognizes, CRS directs Reactor Trip)
6 T = 57	ED10A CP06:SPAP01	C (PO)	Loss of 'A' train HPSI due to Loss of power supply (PBS-S03) (PO diagnose) (CRS to transition to Functional Recovery Procedure (FRP) and direct actions to restore HPSI flow) (Critical Task to restore power to PBA-S03 using MVAC-1) (Critical Task to restore Train A HPSI flow) (Critical Task to start a cooldown)
T~70			End point = Crew restores HPSI flow and starts a cooldown.

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

LOIT NRC EXAM SCENARIO SUPPLEMENTAL TURNOVER INFORMATION**Scenario # 2****Turnover****Plant conditions:**

The unit is at 100% power, steady state conditions at 225 EFPD.

Equipment Out of Service:HPSI 'B'

High Pressure Safety Injection (HPSI) pump 'B' is out of service for emergent work to replace a pump bearing that failed during its scheduled Surveillance Test 6 hours ago. Maintenance workers expect to finish pump repairs in 14 hours from now. T.S. 3.5.3 Condition B was entered 6 hours ago.

PW 'B'

The 'B' Plant Cooling Water pump was removed from service 20 hours ago for scheduled maintenance on the pump motor. Maintenance workers expect to finish pump repairs in 24 hours total time.

Planned Shift Activities:

Remove the 'A' Charging pump from service for planned maintenance. Operations Management has agreed to this request.

Following turnover, shift charging pumps to 'B' and 'E' running to support removing 'A' Charging pump from service.

'E' Charging pump Pre-Start checklist has been completed and an AO is standing by for pump start.

The normal, shiftly surveillances are complete.

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: PVNGS Unit-1 **Scenario No.:** 3 **Op-Test No.:** 3

Examiners: _____ **Operators:** _____

Initial Conditions: IC-16, 50% power, MOC

High Pressure Safety Injection pump 'B' is Out of Service

Plant Cooling Water pump 'B' is Out of Service

Turnover:

See Attached

Scenario Overview:

1. The crew will complete the startup of 'B' MFP and then commence a power increase.
2. Then the crew will experience a failure of a SG #1 Wide Range level transmitter. This will require the crew to refer to Technical Specifications and bypass appropriate Reactor Protection System (RPS) bistables
3. Then the crew will experience a failure of the inservice Letdown Control valve causing a loss of letdown. This will require the crew to stabilize CVCS system and refer to Technical Specifications.
4. Then the crew will experience an unrecoverable loss of feedwater to #2 SG when the Economizer valve fails closed. The crew is expected to attempt to manually trip the unit.
5. Then the crew will experience an ATWS condition and a Main Steam Safety Valve failing open on the unit trip. The crew is expected to open supply breakers for L03 and L10 in response to the ATWS. In response to the Safety valve failure, the crew is expected to isolate feed to #2 SG and stabilize the plant following SG dryout.

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Event No.	Malf. No.	Event Type*	Event Description
		N (SO)	Place 'B' MFP in service (CRS to direct and SO to perform)
		R (ALL)	Power Increase (CRS to direct and SO/PO to coordinate and perform)
1 T = 20	TR04:SGDL T1113D	I (SO)	SG Wide Range level instrument fails low (SO to diagnose and perform actions and CRS direct and refer to Technical Specifications)
2 T = 30	IMF CV03A	C (PO)	CHN-UV-110P Flow Control valve fails closed causes a loss of Letdown (PO to diagnose and perform actions and CRS to direct recovery)
3 T = 42	AV02:SGNF V1122	C (ALL)	#2 SG Feedwater Economizer valve fails closed (SO/CRS to diagnose and CRS to direct unit trip)
4 T = 43	ATWS	M (ALL)	Reactor Protection system failure to open Reactor Trip Switchgear breakers (Crew to diagnose and take action) (Critical Task to trip reactor by opening L03 and L10)
5 T = 44	RV02:SGEPS V554	C (ALL)	Main Steam Safety Valve on #2 SG fails open (Crew recognizes and CRS diagnose Excess Steam Demand and direct stabilization activities) (Critical Task to stop feeding and steaming #2 SG) (Critical Task to control RCS parameters using #1 SG to prevent lifting Pressurizer Safeties)
T~60			End point = Crew stabilizes heat removal on #1 SG

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

LOIT NRC EXAM SCENARIO SUPPLEMENTAL TURNOVER INFORMATION**Scenario # 3****Turnover****Plant conditions:**

The unit is at 50% power, steady state conditions at 225 EFPD.

Equipment Out of Service:HPSI 'B'

High Pressure Safety Injection (HPSI) pump 'B' is out of service for emergent work to replace a pump bearing that failed during its scheduled Surveillance Test 6 hours ago. Maintenance workers expect to finish pump repairs in 14 hours from now. T.S. 3.5.3 Condition B was entered 6 hours ago.

PW 'B'

The 'B' Plant Cooling Water pump was removed from service 20 hours ago for scheduled maintenance on the pump motor. Maintenance workers expect to finish pump repairs in 24 hours total time.

Planned Shift Activities:

The plant has been started up after an electrical grid disturbance caused a reactor/plant trip 4 days ago.

After startup, power was held at 50% for DFWCS testing and Adjustment of nuclear instrumentation (NIs). All tests were satisfactory.

Extended warm weather and the outages of several non-nuclear stations has caused a Power Shortage situation. Station management directs the crew to **immediately** begin a power ascension following turnover. ECC has been notified.

Procedure 40OP-9ZZ05 has been performed through Step 5.3.38.1

Procedure 41OP-1FT02, Feedwater Pump Turbine, has been completed up to step 4.3.31. Main Feed Pump 'B' is currently at ~1000 rpm. Continue the MFP startup with step 4.3.31.

Following completion of the B Main Feed Pump startup, the crew is to recommence the power ascension to 100% power over the next 6 hours.

The required dilution has been calculated and verified by an STA to be 5804 gallons of Reactor Makeup Water. A dilution rate of 16 gpm will support the 8% per hour power ascension rate allowed by 40OP-9ZZ05 fuel preconditioning guidelines.

The normal, shiftly surveillances are complete.

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Op-Test No: 1 Scenario No: 1 Event No: N/A Page 1 of 9

Event Description: Re-pressurize 1B Safety Injection Tank (SIT).

Time	Position	Applicant's Actions or Behavior
T=0	CRS	Briefs crew appropriately for re-pressurizing 1B SIT
	PO	Refer to 40OP-9SI03, Safety Injection Tank Operations <ul style="list-style-type: none">• Open GAA-UV-1, Nitrogen supply to SIT Isolation Valve • Align nitrogen to SIT 1B by opening SIB-HV-642 and SIA-HV-649 • When SIT 1B reaches required pressure close the above valves
	SO	Monitors balance of plant parameters while PO is re-pressurizing 1B SIT

Op-Test No: 1

Scenario No: 1

Event No: 1

Page 2 of 9

Event Description: Channel D SG #1 Differential Pressure (RCS Flow) transmitter fails low. Crew to determine that it is an instrument failure and take action to bypass required Reactor Protection System (RPS) RCS low flow bistable.

Time	Position	Applicant's Actions or Behavior
T=10	CRS/SO	Respond to alarms and diagnose Channel 'D' SG #1 Differential pressure (RCS) flow failure low.
	SO	Respond to alarm on B05: <ul style="list-style-type: none"> Verify alarm is due to Channel 'D' transmitter failure and not actual RCS low flow condition
	CRS	Refer to Technical Specification 3.3.1 and direct bypassing RPS bistable for Channel 'D' RCS low flow trip
	SO	Bypass RPS bistable for Channel 'D' RCS low flow trip
	PO	Monitors balance of plant parameters while SO is responding to alarms and bypassing RPS trip

Op-Test No: 1

Scenario No: 1

Event No: 2

Page 3 of 9

Event Description: Slow recoverable loss of Condenser vacuum. Crew to coordinate power reduction by boration and Control Element Assembly (CEA) insertion to maintain Condenser vacuum within allowed operating parameters.

Time	Position	Applicant's Actions or Behavior
T=20	CRS/SO	Respond to alarms and diagnose degrading Condenser vacuum in the 'A' Condenser Shell.
	SO	Respond to alarms
	CRS	Implement 40AO-9ZZ07, Loss of Condenser Vacuum <ul style="list-style-type: none"> • Direct AO's to investigate source of in-leakage • Direct SO to reduce Turbine load to maintain <5" Condenser backpressure • Direct PO to initiate boration to assist power reduction
	SO	Reduce Turbine load to maintain Condenser backpressure as directed
	PO	Initiate boration as directed, and monitor CEA movement. Monitor balance of plant
	CRS	After source of air in-leakage is discovered and corrected direct plant stabilization
	SO/PO	Perform actions as directed to stabilize plant and to follow through from downpower. (Including removing RPCB from service as applicable)

Time	Position	Applicant's Actions or Behavior
Op-Test No: 1	Scenario No: 1	Event No: 3
Page 4 of 9 Event Description: LT-227 fails low resulting in a swapover of charging pump suction from the Volume Control Tank (VCT) to the Refueling Water Tank (RWT).		
T=35	PO	Respond to B03 alarm "VCT LVL LO-LO" <ul style="list-style-type: none"> • Determine LT-227 has failed low • Holds CHN-UV-501 in Open position • Holds CHN-UV-514 in Closed position
	CRS	Response to alarms at B03: <ul style="list-style-type: none"> • Ensures use of alarm response procedures • Assesses conditions and operator inputs Confirms/diagnoses LT-227 failure Directs/confirms realigning charging pump suction to the VCT by: <ul style="list-style-type: none"> • Holding CHN-UV-501 Open • Holding CHN-UV-514 Closed Direct SO to monitor plant for effects of boration, if RCS cooldown occurs may direct a reactor trip Directs opening supply breakers for the following valves: <ul style="list-style-type: none"> • CHN-UV-501 • CHN-UV-514 • CHE-HV-536 Contact maintenance for repairs and Site Manager. Briefs crew on conditions (if time permits) <ul style="list-style-type: none"> • Establish monitoring of LT-226 or other method
NOTE TO EXAMINER: This event is continued on next page.		

Op-Test No: 1 Scenario No: 1 Event No: 3 Page 5 of 9

Event Description: LT-227 fails low resulting in a swapover of charging pump suction from the Volume Control Tank (VCT) to the Refueling Water Tank (RWT).

Continued

Time	Position	Applicant's Actions or Behavior
	PO	Respond to B03 alarm "VCT LVL LO-LO" <ul style="list-style-type: none"> • Determine LT-227 has failed low • Holds CHN-UV-501 in Open position • Holds CHN-UV-514 in Closed position
	SO	Monitors plant for effects of boration Directs AO to open the breakers for the following three valves <ul style="list-style-type: none"> • CHN-UV-501 • CHN-UV-514 • CHE-HV-536

Op-Test No: 1

Scenario No: 1

Event No: 4

Page 6 of 9

Event Description: Loss of Coolant Accident (LOCA) occurs inside containment. This develops a Low RCS pressure condition causing the CRS to direct a manual reactor trip (automatic trip may occur first) and implement Standard Post Trip Actions (SPTAs). The Auxiliary Feedwater pumps will fail to automatically start causing the crew to manually initiate Auxiliary Feedwater.

Time	Position	Applicant's Actions or Behavior
T=45	CRS/PO/SO	Diagnose a loss of RCS Pressure with indications of energy release into containment
	CRS*	Direct a manual reactor trip (automatic trip may occur first) Direct Standard Post Trip Actions (SPTAs) <ul style="list-style-type: none"> • Direct starting an Auxiliary Feedwater pump during RCS Heat Removal Safety Function (Critical Task to initiate Auxiliary feedwater) • Direct (ensures) RCP seal bleedoff is isolated after CSAS actuates during Containment Temperature, Pressure, and Combustible Gas Control Safety Function check (Critical Task to stop RCPs and Isolate Seal Bleedoff)
	SO/PO	Manually trip the reactor and verify reactor trip
	SO/PO	Verify Maintenance of Vital Auxiliaries NOTE TO EXAMINER: This event is continued on the next page

Op-Test No: 1 Scenario No: 1 Event No: 4 continued Page 7 of 9

Event Description: Loss of Coolant Accident (LOCA) occurs inside containment. This develops a Low RCS pressure condition causing the CRS to direct a manual reactor trip (automatic trip may occur first) and implement Standard Post Trip Actions (SPTAs). The Auxiliary Feedwater pumps will fail to automatically start causing the crew to manually initiate Auxiliary Feedwater.

Continued

	PO	<p>Verify RCS Inventory Control</p> <ul style="list-style-type: none"> • Verify Letdown isolated after SIAS/CIAS <p>Verify RCS Pressure Control</p> <ul style="list-style-type: none"> • May recommend SIAS/CIAS initiation, if not automatically initiated <p>Verify Core Heat Removal</p> <ul style="list-style-type: none"> • Stop 2 RCPs when < 1837 psia RCS pressure • Stop all 4 RCPs and isolate Controlled Bleedoff IF adequate subcooled margin is not maintained.
	SO*	<p>Ensures RCS Heat Removal</p> <ul style="list-style-type: none"> • Manually initiate Auxiliary feedwater (Critical Task to initiate Auxiliary feedwater) (due to MSIS actuation) • SG pressure control using ADVs <p>Verifies Containment Isolation</p> <p>Determines containment conditions</p> <ul style="list-style-type: none"> • Temperature > 114 °F • Pressure > 2.5 psig • Determines if harsh containment conditions exist.
		NOTE TO EXAMINER: This event is continued on the next page

Op-Test No: 1 Scenario No: 1 Event No: 4 Continued Page 8 of 9

Event Description: Continuation of event 4

Time	Position	Applicant's Actions or Behavior
	PO*	After Containment Spray Actuation Signal actuates (CSAS) <ul style="list-style-type: none"> • Verify adequate Containment spray flow on 'A' Train • Report to CRS at this time or during SPTA brief that UV-671 failed to open • Stop all RCPs and isolate Seal Bleedoff when Containment Spray Actuates (CSAS) (Critical Task to stop RCPs and Isolate Seal Bleedoff)
	CRS	Diagnose event as a LOCA inside Containment and transition to LOCA EOP
	SO/PO	Perform Safety Function Status Checks for LOCA every 15 minutes

Op-Test No: 1

Scenario No: 1

Event No: 5

Page 9 of 9

Event Description: 'A' Train Containment Spray pump trips resulting in a Loss of Containment Temperature, Pressure, and Combustible Gas Control Safety Function. This requires transition to the Functional Recovery Procedure and implementation of CTPC-2 to align 'A' LPSI pump to supply 'A' Train Containment Spray flow.

Time	Position	Applicant's Actions or Behavior
T=49	PO	Diagnose the loss of 'A' Train Containment Spray pump by SESS alarms and board indications. Inform the CRS
	CRS*	Diagnose loss of CTPC safety function <ul style="list-style-type: none"> Loss of only available Containment Spray pump Transitions to the Functional Recovery Procedure and directs crew actions <ul style="list-style-type: none"> Determines CTPC is jeopardized Determines CTPC-2 is preferred recovery path Step 3.1 aligns 'A' LPSI pump for CS operation Directs aligning 'A' LPSI pump for CS operation (Critical Task to restore Train A Containment Spray flow using the A LPSI pump) Verifies safety functions are met
	PO*	Aligns 'A' LPSI pump as directed to 'A' Train CS (Critical Task to restore Train A Containment Spray flow using the A LPSI pump)
	SO	Perform other actions as directed
	SO/PO	Perform Safety Function Status Checks for FRP every 15 minutes
T~60		The scenario is complete when 'A' Containment Spray flow has been restored, or when deemed appropriate by lead examiner

Op-Test No: 2

Scenario No: 2

Event No: N/A

Page 1 of 12

Event Description: Shift Charging pump lineup to 'B' and 'E' pump.

Time	Position	Applicant's Actions or Behavior
T=0	CRS	Briefs crew appropriately for shifting charging pump lineup
	PO	Refer to 40OP-9CH01, CVCS Normal Operations <ul style="list-style-type: none"> Places CHN-PDIC-240, Charging Line Backpressure Control valve, in manual Swaps charging pump selector switch Verifies proper system response Places CHN-PDIC-240, Charging Line Backpressure Control valve, in automatic
	SO	Monitors balance of plant parameters while PO shifting charging pump lineup
	PO	May direct the AO to perform the After-Start Checklist for the Charging Pump shift.

Op-Test No: 2 Scenario No: 2 Event No: 1 Page 2 of 12

Event Description: Loss of the running TC pump with a failure of the standby pump to automatically start. Crew diagnosis failure of standby pump to start and takes action to start the pump.

Time	Position	Applicant's Actions or Behavior
T=5	CRS/SO	Respond to B07 alarms and diagnose a loss of Turbine Cooling Water
	CRS	Implement 40AO-9ZZ03. Loss of Cooling Water <ul style="list-style-type: none"> • Direct starting standby pump • Direct monitoring of systems to ensure normal operation after restoring TC flow
	SO	Refer to Alarm response procedures <ul style="list-style-type: none"> • Manually start standby pump •
	PO/SO	Direct AO's to investigate
	PO	Monitor balance of plant while SO responding to B07

Op-Test No: 2

Scenario No: 2

Event No: 2

Page 3 of 12

Event Description: RCA-LT-110X fails low. Crew to determine instrument failure and take actions to remove it from service and refer to appropriate Technical Specifications.

Time	Position	Applicant's Actions or Behavior
T=10	CRS/PO	Respond to alarms and RCA-LT-110X failure low.
	PO	Respond to alarm on B04 <ul style="list-style-type: none"> • Diagnose that RCA-LT-110X has failed Low. • Verify alarm is due to RCA-LT-110X failure and not actual Pressurizer level condition
	PO	Selects RCA-LT-110Y as controlling channel for level control system and heater control (Per Alarm Response). May ensure heaters are reset (available)
	CRS	Refer to Technical Specification 3.3.10, 3.3.11.
	SO	Monitors balance of plant parameters while PO is responding to alarms

Op-Test No: 2

Scenario No: 2

Event No: 3

Page 4 of 12

Event Description: #1 SG Tube leak. Crew to diagnose and quantify tube leakage. CRS to direct unit shutdown to meet Technical Specification and procedural guidance. Crew to coordinate downpower by boration and CEA insertions.

Time	Position	Applicant's Actions or Behavior
T=15	CRS/SO	Respond to RMS alarms and diagnose #1 SG tube leak
	SO	Respond to RMS alarms, using the RMS Alarm Response procedure. <ul style="list-style-type: none"> • May Isolate SG Blowdown (Based on RU Response) • May change the Blowdown constants on the PC and CMC.
	CRS	Implement 40AO-9ZZ02. Excessive RCS Leakage <ul style="list-style-type: none"> • Refer to Technical Specification 3.4.14 as time allows • Direct chemistry to perform 74DP-9ZZ05, Abnormal Occurrence checklist • Directs EC (SM) to Classify the Event • Notify RP of RCS leak • Determine plant shutdown is required, Appendix F • Determine leakrate • Commence plant shutdown • May Direct Minimizing release to environment • May Direct realigning Turbine Bldg. sumps
	SO/PO	Quantify leakage per procedural guidance.
	SO/PO	Perform Appendix C and D to minimize release to environment and realign Turbine Bldg. sumps.
	CRS	Direct unit downpower.

Op-Test No: 2 Scenario No: 2 Event No: 3 Page 5 of 12

Event Description: Continuation of event 3.

Continued

Time	Position	Applicant's Actions or Behavior
	PO	Determine required boration and Initiate boration as directed and monitor CEAs.
	SO	Reduce turbine load

Op-Test No: 2

Scenario No: 2

Event No: 4

Page 6 of 12

Event Description: 'B' MFP experiences high vibrations. Crew to diagnose and manually trip 'B' MFP causing a Reactor Power Cutback. Crew to stabilize plant then continue downpower.

Time	Position	Applicant's Actions or Behavior
T=35	CRS/SO	<p>Response to alarms at B06</p> <p>Confirms/diagnoses 'B' MFP High Vibrations using Alarm Response Procedure</p>
	CRS	<p>Implement 40AO-9ZZ09, Reactor Power Cutback (Loss of Main Feed Pump)</p> <ul style="list-style-type: none"> • Direct tripping 'B' MFP • Direct verification of Reactor Power Cutback • Verify Feed flow is stable • Direct taking CEDMCS to Manual Sequential • May Direct STA/ RO to Perform App. F Status Check • Direct removing RPCB from service • Direct reducing turbine load limit potentiometer until the 'Load Limiting' light comes on. • Direct plant stabilization actions.
	PO	<ul style="list-style-type: none"> • Stop boration, if directed • Verify correct CEA motion for Reactor Power Cutback
	SO	<ul style="list-style-type: none"> • Verify Setback and Runback occur • Verify Feedwater Control System is maintaining SG inventory.
	PO	<ul style="list-style-type: none"> • May remove RPCB from service • All Continue Unit downpower • May perform App. F Status Check.

Op-Test No: 2 Scenario No: 2 Event No: 4 Page 7 of 12

Event Description: Continuation of event 4.

Continued

Time	Position	Applicant's Actions or Behavior
	SO	<ul style="list-style-type: none">• May reduce turbine load limit potentiometer until the 'Load Limiting' light comes on.• May perform App. F Status Check.
	CRS	Direct continuing unit shutdown.
	PO/SO	Implement CRS unit shutdown gameplan.

Op-Test No: 2

Scenario No: 2

Event No: 5

Page 8 of 12

Event Description: Steam Generator Tube Rupture (SGTR) occurs in #1 SG. This develops a low RCS pressure and inventory requiring the CRS to direct a manual unit trip (automatic trip may occur first) and implement Standard Post Trip Actions (SPTAs).

Time	Position	Applicant's Actions or Behavior
T=40	CRS/PO/SO	Diagnose a loss of RCS Pressure and Level with indications of RCS to SG rupture. <ul style="list-style-type: none"> • May start the 'A' Charging pump.
	CRS*	<ul style="list-style-type: none"> • Direct a manual reactor trip (automatic trip may occur first) • Direct Standard Post Trip Actions (SPTAs).
	SO/PO	Manually trip the reactor and verify reactor trip.
	SO/PO	Verify Maintenance of Vital Auxiliaries.
	PO*	<p>Verify RCS Inventory Control</p> <ul style="list-style-type: none"> • Verify Letdown isolated after SIAS/CIAS • Ensure HPSI Flow if required <p>Verify RCS Pressure Control</p> <ul style="list-style-type: none"> • May recommend SIAS/CIAS initiation, if not automatically initiated • Ensure HPSI Flow if required. <p>Verify Core Heat Removal</p> <ul style="list-style-type: none"> • Stop 2 RCPs when < 1837 psia RCS pressure.
	SO	<p>Ensures RCS Heat Removal</p> <p>Verifies Containment Isolation</p> <p>Determines containment conditions.</p>

Op-Test No: 2

Scenario No: 2

Event No: 5

Page 9 of 12

Event Description: Continuation of event 5.

Continued

Time	Position	Applicant's Actions or Behavior
	CRS	<ul style="list-style-type: none"> • Diagnose event as a SGTR and transition to SGTR EOP • May direct manual start of HPSI 'A' if required (IF SIAS actuated).
	SO/PO	Perform Safety Function Status Checks for SGTR every 15 minutes.
	CRS	May direct initiation of RCS cooldown and depressurization.
	SO	Perform RCS cooldown as directed using Steam Bypass.
	PO	May initiate RCS depressurization.

Op-Test No: 2

Scenario No: 2

Event No: 6

Page 10 of 12

Event Description: 'A' Train HPSI pump is lost due to electrical complications resulting in a Loss of HPSI injection and the Inventory Control Safety Function. This requires transition to the Functional Recovery Procedure and implementation of MVAC-1 to align Offsite power to PBA-S03 and start or ensure automatic start of 'A' HPSI pump. Then cooldown and isolate #1 SG.

NOTE TO EXAMINER: Event 6 is continued on page 11.

Time	Position	Applicant's Actions or Behavior
T=57	PO	Diagnose the loss of NBN-X03 and the failure of 'A' Spray pond pump to start Inform the CRS.
	CRS*	Direct emergency stopping of 'A' DG. Diagnose loss of IC safety function <ul style="list-style-type: none"> • Loss of only available HPSI pump • May trip all/remaining RCPs due to loss of adequate RCS Subcooling margin. Transitions to the Functional Recovery Procedure and directs crew actions: <ul style="list-style-type: none"> • Determines MVAC-1 and IC-2 and CI-1 are jeopardized • Determines MVAC-1 is first recovery path • Step 11 directs cross-tying offsite power to PBA-S03 • Directs aligning offsite power to PBA-S03 (Critical Task to restore power to PBA-S03)
	PO	Direct AO to emergency stop 'A' DG.
	PO	Secures RCPs due to loss of subcooling or NPSH. (Critical Task to secure RCPs on loss of subcooling).
	PO*	Aligns offsite power to PBA-S03 (Critical Task to restore power to PBA-S03).

Op-Test No: 2

Scenario No: 2

Event No: 6

Page 11 of 12

Event Description: Continuation of event 6.

Continued

Time	Position	Applicant's Actions or Behavior
	CRS*	Continues in Functional Recovery Procedure and directs crew actions: <ul style="list-style-type: none"> • Determines IC-2 is next recovery path • Directs starting 'A' HPSI pump (Critical Task to restore 'A' HPSI flow).
	PO*	Manually start 'A' HPSI pump (Critical Task to restore 'A' HPSI flow).
	CRS*	Continues in Functional Recovery Procedure and directs crew actions: <ul style="list-style-type: none"> • Determines CI is next recovery path • Implements HR-2 per CI direction • Directs RCS cooldown to less than 540 degrees That (Critical Task to initiate cooldown). • Directs RCS depressurization to minimize SG inleakage • May direct #1 SG isolation when That is < 540 degrees.
	SO*	Perform RCS cooldown as directed (Critical Task to start a cooldown) Isolation of #1 SG as directed.
		NOTE TO EXAMINER: Event 6 is continued on page 12.

Op-Test No: 2 Scenario No: 2 Event No: 6 Continued Page 12 of 12

Event Description: Continuation of event 6.

Time	Position	Applicant's Actions or Behavior
	PO	Depressurize RCS as directed
	PO/SO	Perform Safety Function Status Checks for FRP every 15 minutes.
T~65		The scenario is complete when HPSI flow is restored and cooldown started or when deemed appropriate by lead examiner

Op-Test No: 3

Scenario No: 3

Event No: N/A

Page 1 of 9

Event Description: Place 'B' Main Feed pump (MFP) in service and continue power increase.

Time	Position	Applicant's Actions or Behavior
T=0	CRS	Refers to 40OP-9ZZ05, Power Operations, Section 5.0 for power increase <ul style="list-style-type: none"> • Directs crew activities • Briefs crew appropriately for coordination of 'B' Main Feed pump start and subsequent power increase
	SO	Refers to 41OP-1FT02, FW Pump Turbine "B" Section 4.0, Step 4.3.31 <ul style="list-style-type: none"> • Check FWPT setpoint controller SGN-FIC-1108 in "AUTO" with bias. (50% scale) • Close FTN-HV-10 • Increase speed to match discharge pressure using FTN-HS-54 • Ensure discharge valve is open (FWN-HV-32) • Adjust bias on SGN-FIC-1108 to obtain zero deviation • Place speed controller FTN-HS-100 to "AUTO" • Balance performance using bias's on speed controllers on "A" & "B" FWPT's.
	PO	Initiates Dilution of RCS at a rate calculated to support power ascension objectives when directed. <ul style="list-style-type: none"> • May be directed by CRS to initially dilute a given amount to start the power increase (16 gpm provided in turnover) • Uses 41OP-1CH01, Section 9.0 • Observes for indications of dilution on RCS <ul style="list-style-type: none"> - Temperature, Power, PZR pressure, PZR Level.
	SO	Raises Main Turbine load to support the Power Ascension. <ul style="list-style-type: none"> • Observes for indications of the power increase.

Op-Test No: 3 Scenario No: 3 Event No: 1 Page 2 of 9

Event Description: Steam Generator #1 Wide Range Level Channel fails low. Crew to determine that it is an instrument failure and take action to bypass required Reactor Protection System (RPS) and ESFAS low level bistables.

Time	Position	Applicant's Actions or Behavior
T=20	SO	<p>Recognizes SG #1 WR level SGDLT1113D fails low</p> <ul style="list-style-type: none"> • Reports condition to CRS • Verifies plant conditions don't support instrument reading. • Refers to 41AL-1RK5A or 41AL-1RK5B which directs TS applicability
	CRS	<p>Refers to TS to review applicability</p> <ul style="list-style-type: none"> • TS 3.3.1A – place affected channel in bypass within 1 hr. • TS 3.3.5A – place affected channel in bypass within 1 hr. <p>Directs SO/PO to place RPS and ESFAS channels in bypass for low SG level. Must ensure both ESFAS S/G levels are bypassed.</p>
	SO/PO	<p>Obtains keys and places low SG level channels in bypass</p> <ul style="list-style-type: none"> • PPS & ESFAS
	PO/SO	<p>Monitors primary and secondary plant parameters while other operator is placing channels in bypass</p>

Op-Test No: 3

Scenario No: 3

Event No: 2

Page 3 of 9

Event Description: Letdown Level Control valve 110P fails closed causing a loss of Letdown. Crew to determine that the valve has fails and take action to control CVCS and restore Letdown.

Time	Position	Applicant's Actions or Behavior
T=30	CRS	<p>Directs Response to B03 alarms</p> <ul style="list-style-type: none"> • LD HDR SYS TRBL (Window 3A 10A) • LD Process Mon TRBL (Window) <p>Assess condition and operator inputs</p> <ul style="list-style-type: none"> • Letdown flow and backpressure trending down • Letdown control valve 110P indicates closes. <p>Directs entry into loss of Letdown, 40AO-9ZZ05.</p>
	PO	<p>Observes B03 alarms and refers to Alarm Response procedure</p> <ul style="list-style-type: none"> • 110P indicates closes. <p>Performs Section 3.0 of Loss of Letdown 40AO-9ZZ05</p> <ul style="list-style-type: none"> • Place RCN-LIC-110 in "MAN" and close letdown valves • Checks back pressure • Removes one charging pump from service • Determines 110P has failed closed • Places 110Q in service using Appendix F.
	SO	Monitors Secondary Systems and continues power increase.

Op-Test No: 3

Scenario No: 3

Event No: 2

Page 4 of 9

Event Description: Event #2 continued.

Time	Position	Applicant's Actions or Behavior
	CRS	May direct recovery per Step 11 of Loss of Letdown. Addresses TS for Pressurizer level <ul style="list-style-type: none">• TS 3.4.9.a – Pressurizer shall be OPERABLE with level \leq 56%<ul style="list-style-type: none">– Be in Mode 3 with reactor trip breakers open in 6 hrs. and be in Mode 4 in 12 hrs.
	PO	As time permits, restores letdown using Appendix A.

Op-Test No: 3 Scenario No: 3 Event No: 3 Page 5 of 9

Event Description: Feedwater Economizer Valve SGNFV1122 Fails Closed requiring Crew to Initiate a manual unit trip.

Time	Position	Applicant's Actions or Behavior
T=42	CRS	Directs Response to FWPT Disch Pressure HIGH.
	SO	Recognized Lowering #2 S/G levels <ul style="list-style-type: none"> • May attempt manual control of #2 FW control system to increase level • All attempts fail due to SGN-FV-1122 failing closed.
	CRS	Directs Rx Trip based on Trending of S/G levels towards RPS Setpoints <ul style="list-style-type: none"> • Directs performance of SPTA's.
	PO	Assists in monitoring plant response.
	PO/SO	Directed to trip Reactor, using Reactor Trip push buttons located on B05.

Op-Test No: 3

Scenario No: 3

Event No: 4

Page 6 of 9

Event Description: Anticipated trip without scram (ATWS) event requires load center breakers to be opened and a Main Steam Safety valve fails open during Standard Post Trip Actions.

NOTE TO EXAMINER: This event is continued on page 7

Time	Position	Applicant's Actions or Behavior
T=43	CRS*	<p>Recognizes Reactor has not tripped using manual push buttons</p> <ul style="list-style-type: none"> Directs opening L03 & L10 supply breakers. (Critical Task to manually trip the reactor). <p>May direct SIAS/CIAS and MSIS.</p>
	PO*	<p>Opens L03 & L10 (Critical Task to manually trip the reactor).</p> <ul style="list-style-type: none"> May re-close after 5 seconds.
	PO/SO	<p>Verifies reactor tripped.</p> <p>Initiates SIAS/CIAS and MSIS as directed.</p>
	SO	<p>Verifies electrical power.</p> <ul style="list-style-type: none"> Turbine tripped. Main Generator breakers open. Station loads transfer to offsite power. Vital/non-vital AC/DC buses power.

Op-Test No: 3

Scenario No: 3

Event No: 4

Page 7 of 9

Event Description: Event #4 continued.

NOTE TO EXAMINER: This event is continued on page 8

Time	Position	Applicant's Actions or Behavior
	PO	<p>Determines RCS inventory control</p> <ul style="list-style-type: none"> • Pressurizer level control • RCS subcooling ≥ 24 °F • RCP seal injection and cooling (NCW). <p>Determines RCS pressure control. May suggest SIAS/CIAS</p> <ul style="list-style-type: none"> • Stops two RCPs < 1837 psia • Ensures HPSI flow to RCS • Starts all available charging pumps. <p>Determines core heat removal.</p> <ul style="list-style-type: none"> • Loop delta T • RCS subcooling ≥ 24 °F.

Op-Test No: 5 Scenario No: 5 Event No: 4 Continued Page 8 of 9

Event Description: Continuation of event 4

Time	Position	Applicant's Actions or Behavior
	SO	<p>Determines RCS heat removal</p> <ul style="list-style-type: none"> • SG level restoring. Aux. Feed will start if AFAS-2. SO may override flow valves to #2 SG and stop flow. Ensures flow to SG #1. • RCS Tcold below 560 – 570 band • SG pressure control. May report SG #2 safety valve open. • May suggest MSIS. <p>Determines containment isolation</p> <ul style="list-style-type: none"> • Pressure \leq 2.5 psig • RMS alarms and trends. <p>Determines containment conditions</p> <ul style="list-style-type: none"> • Temperature 114 °F or less. • Pressure 2.5 psig or less.

Op-Test No: 5 Scenario No: 5 Event No: 5 Page 9 of 9

Event Description: Excess Steam Demand actions.

Time	Position	Applicant's Actions or Behavior
	CRS*	Diagnoses of event as ESD and enters Excess Steam Demand EOP. <ul style="list-style-type: none"> Directs isolation of #2 S/G (Critical Task to isolate #2 SG).
	SO*	Isolates #2 SG <ul style="list-style-type: none"> Stops Feeding and steaming #2 S/G (Critical Task to isolate #2 SG) <ul style="list-style-type: none"> Closes Steam Supply to AFA-P01.
	PO/SO	Monitors RCS parameters for SG blowdown/RCS rebound. <ul style="list-style-type: none"> Selects target temperature/pressure RCS T-cold stable/increasing RCS pressure rising.
	SO*	Upon rebound indication, uses SG #1 ADV to control RCS temperature and pressure (Critical Task to control RCS parameters by feeding and steaming available SG to prevent Pressurizer safeties from lifting).
	PO	Throttles HPSI flow as needed.
	PO/SO	Perform Safety Function Status Checks for ESD every 15 minutes
T~60	END	Scenario will end when RCS has been stabilized and the unisolated Steam Generator Level is being maintained 40-60% NR <p style="text-align: center;">OR</p> Actions have been taken for plant stabilization and the unisolated Steam Generator level is trending towards 40%-60% NR



JP-1*
PVNGS JOB PERFORMANCE MEASURE

JPM BASIS INFORMATION

TASK: 1240023901 Perform local operation of AFN-P01
TASK STANDARD: Perform Alternate Method of SG Level Control by Local Manual Start-up of the Non-Essential Aux Feed Pump AFN-P01
K/A: 3.4-061-A2.03 K/A RATING: RO: 3.1 SRO: 3.4
K/A: K/A RATING: RO: SRO:
APPLICABLE POSITION(S): AO VALIDATION TIME: 10 min
REFERENCES: 40EP-9EO06, Standard Appendices, Attachment 41-A, Rev 20
SUGGESTED TESTING ENVIRONMENT: SIMULATOR PLANT X

APPROVAL

DEVELOPER: Greg Peak TECH REVIEW:
REVISION DATE: 09/22/98 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR PLANT X
TESTING METHOD: SIMULATE X PERFORM

EVALUATION

EXAMINEE NAME:
EVALUATOR NAME:
SATISFACTORY UNSATISFACTORY
Time Start Time Stop
REMEDIAL TRAINING REQUIRED? YES NO
(SEE OTG-04)



JP-1*
PVNGS JOB PERFORMANCE MEASURE

1. SIMULATOR SETUP:

A. IC#: N/A

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	N/A	
2.		
3.		
4.		

C. SPECIAL INSTRUCTIONS:

- None

D. REQUIRED CONDITIONS:

- None

2. SPECIAL TOOLS/EQUIPMENT:

- None



JP-1*
PVNGS JOB PERFORMANCE MEASURE

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **A Loss of All Feedwater event has occurred.**
- **There has also been a loss of 125V DC control power to breaker PBA-S03S.**
- **The CRS directs you to perform a Local Manual start of the non-class Auxiliary Feed Pump, AFN-P01, per Standard Appendix 41, Attachment 41-A.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set, then ensure the examinee has been briefed IAW NUREG 1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Manager of in-plant JPM performance.

SAFETY CONSIDERATIONS:

- Equipment may start at any time
- Equipment inside cubicle is energized



JP-1*

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
1.	Check that the closing springs indicator for breaker PBA-S03S "Aux Feedwater Pump M-AFN-P01" indicates "CHGD"	<p>NOTE: Examinee simulates opening cubicle. Examinee will explain operation of components inside cubicle. Examinee simulates observing closing spring indicator.</p> <p>Inform CUE: Closing springs do NOT indicate charged.</p> <p>NOTE: Charging spring indicator located in middle left side of cubicle.</p>
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.*	Obtain All the following equipment from FPN-C02 "Emergency Equipment Cabinet" Ratchet Extension 5/8" Socket	<p>Examinee simulates obtaining from FPN-C02 "Emergency Equipment Cabinet"</p> <p>Inform CUE: Assume you have obtained the indicated equipment.</p> <p>NOTE: 5/8" socket and ratchet wrench located in Emergency Equipment Locker FPN-C02 on the 100' level of the Control Bldg. in the 'B' switchgear room.</p>
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



JP-1*
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
3.	Open RRA, the 125VDC Control Power Breaker.	Examinee simulates opening Control Power Breaker. If Requested CUE: Control Power Breaker is open. NOTE: Control Power Breaker is located inside breaker cubicle, top right-hand side.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
4.*	Manually charge the closing springs.	Examinee simulates manually charging closing spring by pointing out closing springs driving stud and indicating that he would rotate stud in the clockwise direction. If Requested CUE: Closing springs indicate charged.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
5.	Close RRA, the 125 V DC Control Power Breaker.	Examinee simulates closing Control Power Breaker for PBA-S03S. (RRA) If Requested CUE: Control Power Breaker for PBA-S03S is closed.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



JP-1*
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
6.*	Press the “Manual Close” plunger for the breaker, PBA-S03S (step 2 of procedure).	Examinee simulates pressing the manual close push-button to close PBA-S03S.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
7.	Check that the mechanical breaker indication for the breaker PBA-S03S indicates CLOSED.	Examinee simulates verifying PBA-S03S closed by observing closed flag on breaker (or breaker position indicator). If Requested CUE: PBA-S03S indicates closed.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
8.	Inform the responsible operator that the attachment 41-A is complete.	Examinee simulates informing the responsible operator that attachment 41-A is complete. If Requested CUE: Control Room is informed of Attachment 41-A completion.
SAT _____ UNSAT _____ (UNSAT requires comments)		

NORMAL TERMINATION POINT

COMMENTS:



JP-1*
PVNGS JOB PERFORMANCE MEASURE

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
13	12/13/96	6	New Format
14	12/22/97	6	Modified for NLO
15	09/23/98	6	Changed Shift Supervisor to Shift Manager
16	05/8/01	3	

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



JP-1*
PVNGS JOB PERFORMANCE MEASURE

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **A Loss of All Feedwater event has occurred.**
- **There has also been a loss of 125V DC control power to breaker PBA-S03S.**
- **The CRS directs you to perform a Local Manual start of the non-class Auxiliary Feed Pump, AFN-P01, per Standard Appendix 41, Attachment 41-A.**

SAFETY CONSIDERATIONS:

- Equipment may start at any time
- Equipment inside cubicle is energized



**JP2
PVNGS JOB PERFORMANCE MEASURE**

JPM BASIS INFORMATION

TASK: 1250065201 Align local air /nitrogen bottle to the Fuel Transfer Canal Gate Seal
TASK STANDARD: Pressurize the Fuel Transfer Canal Gate Seal
K/A: 3.8-078-K4.02 K/A RATING: RO: 3.2 SRO: 3.5
K/A: 3.8-078-A3.01 K/A RATING: RO: 3.1 SRO: 3.2
APPLICABLE POSITION(S): RO/SRO VALIDATION TIME: 15 minutes
REFERENCES: 40AO-9ZZ06 Loss of Instrument Air, Appendix H, Rev 9
SUGGESTED TESTING ENVIRONMENT: SIMULATOR _____ PLANT X

APPROVAL

DEVELOPER: Jim Shannon TECH REVIEW:
REVISION DATE: 6/19/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR _____ PLANT X
TESTING METHOD: SIMULATE X PERFORM _____

EVALUATION

EXAMINEE NAME: _____
(print)
EVALUATOR NAME: _____
(print)
SATISFACTORY _____ UNSATISFACTORY _____
Time Start _____ Time Stop _____
REMEDIAL TRAINING REQUIRED? YES _____ NO _____
(SEE 15TD-0TR03)



JP2
PVNGS JOB PERFORMANCE MEASURE

1. SIMULATOR SETUP:

A. IC# : N/A

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	N/A	
2.		
3.		
4.		
5.		
6.		
7.		

C. SPECIAL INSTRUCTIONS:

- None

D. REQUIRED CONDITIONS:

- None

2. SPECIAL TOOLS/EQUIPMENT:

- None



JP2
PVNGS JOB PERFORMANCE MEASURE

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The unit was operating at 100% power when a loss of instrument air occurred. The CRS entered 40AO-9ZZ06, the Loss of Instrument Air procedure.

The CRS directs you to perform Appendix H to:

- **Align the local air/ nitrogen bottle to the Fuel Transfer Canal Gate Seal and**
- **Verify pressure to the Cask Loading Pit Gate and the Decon Washdown Pit Gate.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG-1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Manager of in-plant JPM performance.
- This JPM is Unit Specific. JPM steps 3 and 10-15 are Unit 1 only. JPM step 7 in Unit 2 and 3 only.

SAFETY CONSIDERATIONS:

- Slip/fall hazard on stairways.
- Pinch points at doorways.



**JP2
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
1.	Obtains copy of 40AO-9ZZ06, Loss of Instrument Air, Appendix H.	Examinee obtains copy of 40AO-9ZZ06, Loss of Instrument Air, Appendix H from procedure set at CRS desk, SM and STA console, or file cabinet.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.	* Close IAN-VE90 "Air Isolation from IA Header". (140' Fuel Bldg North Wall on local panel)	Examinee simulates closing IAN-VE90. If Requested CUE: IAN-VE90 is closed.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
3.	Unit 1 only - Close IAN-VG21 "Cask Loading Pit and Decon Area Gate Isolation Valve". (140' Fuel Bldg North Wall)	Examinee simulates closing IAN-VG21. If Requested CUE: IAN-VG21 is closed.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**JP2
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
4.	<p>If it is desired to place the Transfer Canal Gate Seal Nitrogen / Air bottle #1 in service.</p> <p>Ensure that the Nitrogen / Air bottle #1 Pressure Regulator Control (PCV-219A) knob is adjusted to the fully counter clockwise position, minimum output no spring pressure.</p>	<p>Inform CUE: It is desired to place the Transfer Canal Gate Seal Nitrogen / Air Bottle #1 in service.</p> <p>Examinee simulates adjusting the Nitrogen / Air bottle #1 Pressure Regulator Control Knob to the fully counter clockwise position.</p> <p>If Requested CUE: the Nitrogen / Air bottle #1 Pressure Regulator Control Knob is adjusted to the fully counter clockwise position.</p>
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
5.	<p>* Open the Nitrogen / Air bottle #1 isolation valve.</p>	<p>Examinee simulates opening the Nitrogen / Air bottle #1 isolation valve.</p> <p>If Requested CUE: The Nitrogen / Air bottle #1 isolation valve is open.</p>
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
6.	<p>* Adjust the Nitrogen / Air bottle #1 Pressure Regulator Control Knob in the clockwise direction until the pressure output is 35-40 psig.</p>	<p>Examinee simulates adjusting the Nitrogen / Air bottle #1 Pressure Regulator Control Knob in the clockwise direction until the pressure output is 35-40 psig (read on gauge on left).</p> <p>If Requested CUE: The pressure output from the Nitrogen / Air bottle #1 Pressure Regulator is 38 psig.</p>
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**JP2
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
7. *	Unit 2 & 3 only - Open the Nitrogen / Air bottle #1 Pressure Regulator Outlet Valve.	Examinee simulates opening the Nitrogen / Air bottle #1 Pressure Regulator Outlet Valve. If Requested CUE: The Nitrogen / Air bottle #1 Pressure Regulator Outlet Valve is open.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
8. *	Open IAN-VE92, Local Air / Nitrogen Bottle #1 Header Isolation Valve.	Examinee simulates opening IAN-VE92, Local Air / Nitrogen Bottle #1 Header Isolation Valve. If Requested CUE: IAN-VE92, Local Air / Nitrogen Bottle #1 Header Isolation Valve is open.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
9.	If it is desired to place the Transfer Canal Gate Seal Nitrogen / Air bottle #2 in service. (Procedure step #4) then perform the following (step 4):	Inform CUE: It is <u>not</u> desired to place the Transfer Canal Gate Seal Nitrogen / Air Bottle #2 in service.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**JP2
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
10.	Unit 1 only - Open all the following <ul style="list-style-type: none"> • IAN-VF98, “IAN-PI-282A Isolation Valve”. • IAN-VF89, “IAN-PI-278 Isolation Valve”. • IAN-VF94, “IAN-PI-281A Isolation Valve”. 	Examinee simulates opening all the following valves: <ul style="list-style-type: none"> • IAN-VF98, “IAN-PI-282A Isolation Valve”. • IAN-VF89, “IAN-PI-278 Isolation Valve”. • IAN-VF94, “IAN-PI-281A Isolation Valve”. If Requested CUE: The following valves are open: <ul style="list-style-type: none"> • IAN-VF98, “IAN-PI-282A Isolation Valve”. • IAN-VF89, “IAN-PI-278 Isolation Valve”. • IAN-VF94, “IAN-PI-281A Isolation Valve”.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
11.	Unit 1 only - Check that the pressure on all of the following is 36.5 – 43.5 psig: <ul style="list-style-type: none"> • IAN-PI-282A (Decon Area Seal A). • IAN- PI-278 (Seal A Header). • IAN-PI-281A (Cask Loading Pit A Seal). 	Examinee simulates checking the pressure on: <ul style="list-style-type: none"> • IAN-PI-282A (Decon Area Seal A) • IAN- PI-278 (Seal A Header). • IAN-PI-281A (Cask Loading Pit A Seal). If Requested CUE. The pressure on IAN-PI-282A (Decon Area Seal A), IAN- PI-278 (Seal A Header) and IAN-PI-281A (Cask Loading Pit A Seal) is 38 psig..
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



JP2
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
12.	Unit 1 only - Close all the following: <ul style="list-style-type: none">• IAN-VF98, “IAN-PI-282A Isolation Valve• IAN-VF89, “IAN-PI-278 Isolation Valve”.• IAN-VF94, “IAN-PI-281A Isolation Valve”.”.	Examinee simulates closing the following valves: <ul style="list-style-type: none">• IAN-VF98, “IAN-PI-282A Isolation Valve• IAN-VF89, “IAN-PI-278 Isolation Valve”.• IAN-VF94, “IAN-PI-281A Isolation Valve”. If Requested CUE: The following valves are closed: <ul style="list-style-type: none">• IAN-VF98, “IAN-PI-282A Isolation Valve”.• IAN-VF89, “IAN-PI-278 Isolation Valve”.• IAN-VF94, “IAN-PI-281A Isolation Valve”.

COMMENTS:



**JP2
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
13.	Unit 1 only - Open all the following <ul style="list-style-type: none"> • IAN-VG11, “IAN-PI-281B Isolation Valve”. • IAN-VG006, “IAN-PI-284 Isolation Valve”. • IAN-VG15, “IAN-PI-282B Isolation Valve”. 	Examinee simulates opening all the following valves: <ul style="list-style-type: none"> • IAN-VG11, “IAN-PI-281B Isolation Valve”. • IAN-VG006, “IAN-PI-284 Isolation Valve”. • IAN-VG15, “IAN-PI-282B Isolation Valve”. If Requested CUE: The following valves are open: <ul style="list-style-type: none"> • IAN-VG11, “IAN-PI-281B Isolation Valve”. • IAN-VG006, “IAN-PI-284 Isolation Valve”. • IAN-VG15, “IAN-PI-282B Isolation Valve”.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
14.	Unit 1 only - Check that the pressure on all of the following is 36.5 – 43.5 psig: <ul style="list-style-type: none"> • IAN-PI-281B (Cask Loading Pit B Seal). • IAN- PI-284 (Seal B Header). • IAN-PI-282B (Decon Area Seal B). 	Examinee simulates checking the pressure on: <ul style="list-style-type: none"> • IAN-PI-281B (Cask Loading Pit B Seal) • IAN- PI-284 (Seal B Header). • IAN-PI-282B (Decon Area Seal B). If Requested CUE. The pressure on IAN- PI-284 (Seal B Header), IAN-PI-281B (Cask Loading Pit B Seal), and IAN-PI-282B (Decon Area Seal B) is 39 psig.
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



**JP2
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
15.	Unit 1 only - Close all the following: <ul style="list-style-type: none"> • IAN-VG11, “IAN-PI-281B Isolation Valve”. • IAN-VG006, “IAN-PI-284 Isolation Valve”. • IAN-VG15, “IAN-PI-282B Isolation Valve”. 	Examinee simulates closing the following valves: <ul style="list-style-type: none"> • IAN-VG11, “IAN-PI-281B Isolation Valve”. • IAN-VG006, “IAN-PI-284 Isolation Valve”. • IAN-VG15, “IAN-PI-282B Isolation Valve”. If Requested CUE: The following valves are closed: <ul style="list-style-type: none"> • IAN-VG11, “IAN-PI-281B Isolation Valve”. • IAN-VG006, “IAN-PI-284 Isolation Valve”. • IAN-VG15, “IAN-PI-282B Isolation Valve”.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
16.	Monitor the local nitrogen / air bottle pressure using Attachment H-1, “Local Air / Nitrogen Bottle Log”, until this procedure is exited.	Inform CUE: Another operator will monitor the local nitrogen / air bottle pressure using Attachment H-1, “Local Air / Nitrogen Bottle Log”.
SAT _____ UNSAT _____ (UNSAT requires comments)		

NORMAL TERMINATION POINT

COMMENTS:



**JP2
PVNGS JOB PERFORMANCE MEASURE**

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
0	4/11/01	2	New JPM
1	6/19/01	3	Procedure revision.

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



JP2
PVNGS JOB PERFORMANCE MEASURE

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The unit was operating at 100% power when a loss of instrument air occurred. The CRS entered 40AO-9ZZ06, the Loss of Instrument Air procedure.

The CRS directs you to perform Appendix H to:

- **Align the local air/ nitrogen bottle to the Fuel Transfer Canal Gate Seal and**
- **Verify pressure to the Cask Loading Pit Gate and the Decon Washdown Pit Gate.**

SAFETY CONSIDERATIONS:

- Slip/fall hazard on stairways.
- Pinch points at doorways.



JP03^{#*}

PVNGS JOB PERFORMANCE MEASURE

JPM BASIS INFORMATION

TASK: 1250440201 Perform Event Control Actions for a Control Room Fire

TASK STANDARD: Start Diesel Generator "B" and supply loads on PBB-S04

K/A: 4.2-068-AA1.10

K/A RATING: RO: 3.7

SRO: 3.9

K/A: 4.2-068-AA1.31

K/A RATING: RO: 3.9

SRO 4.0

APPLICABLE POSITION(S): AO/RO/SRO

VALIDATION TIME:

25 min.

TIME CRITICAL - 15
MINUTES FROM THE
TIME D/G "B" IS
STARTED UNTIL SP "B"
IS STARTED

REFERENCES: 40AO-9ZZ19, Control Room Fire, Appendix E, Rev 6

SUGGESTED TESTING ENVIRONMENT: SIMULATOR _____ PLANT X
TIME CRITICAL

APPROVAL

DEVELOPER: J. Shannon

TECH REVIEW:

REVISION DATE: 06/20/01

APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR _____ PLANT X

TESTING METHOD: SIMULATE X PERFORM _____

EVALUATION

EXAMINEE NAME: _____
(print)

EVALUATOR NAME: _____
(print)

SATISFACTORY _____ UNSATISFACTORY _____

Time Start _____ Time Stop _____

REMEDIAL TRAINING REQUIRED? YES _____ NO _____
(SEE OTG-04)



JP03^{#*}
PVNGS JOB PERFORMANCE MEASURE

1. SIMULATOR SETUP:

A. IC#: N/A

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.		
2.		
3.		
4.		

C. SPECIAL INSTRUCTIONS:

- None

D. REQUIRED CONDITIONS:

- None

2. SPECIAL TOOLS/EQUIPMENT:

- None



JP03^{#*}
PVNGS JOB PERFORMANCE MEASURE

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **The control room has been evacuated due to a fire.**
- **There has been a loss of offsite power. No automatic start and loading of the Emergency Diesel Generators, or load shed has occurred.**
- **The CRS directs you to complete Appendix E of 40AO-9ZZ19 (PBB-S04 Deenergized), to manually start and load the "B" Diesel Generator.**
- **Assume you have a portable lantern.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- **THIS JPM CONTAINS TIME CRITICAL ELEMENTS.**
- The complete load shed and manual sequencing of loads will not be performed.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG 1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Supervisor of in-plant JPM performance.

SAFETY CONSIDERATIONS:

- Equipment may start at any time.
- Operation of equipment could cause unwanted plant perturbations.



JP03^{#*}
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
1.	Examinee obtains 40AO-9ZZ19, Appendix E. Obtains portable lantern.	Examinee obtains 40AO-9ZZ19, Appendix E. Has portable lantern from INITIATING CUE.

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
2.	Direct the lower Auxiliary Building Operator to perform Appendix H, step 2.	Examinee directs the lower Auxiliary Building Operator to perform Appendix H, step 2. Inform CUE: The Lower Auxiliary Building Operator has completed step 2 of Appendix H which opens breakers and places disconnects in Local for battery chargers BD PKB-H16 and B PKB-H12.

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JP03^{#*}

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
3.	Place all of the following control room circuits disconnect switches in "LOCAL" (located on the 100 foot control building switchgear room B). <ul style="list-style-type: none"> • PHB-M3209, Battery Charger D PKD-H14. • PHB-M3205, Control Room Circuits Disconnect switches (4 switches). 	Examinee simulates placing the following control room circuits disconnect switches to "local" <ul style="list-style-type: none"> • PHB-M3209, Battery Charger D PKD-H14 (CS-1). • PHB-M3205, Control Room Circuits Disconnect switches (4 switches) CS-3 M3203 CS-3 M3206 CS-3 M3207 CS-3 M3222 <p>If requested CUE: Evaluator may cue switches in "local" position either individually as manipulated, or as a group when complete.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JP03^{#*}

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
4.	Ensure both of the following breakers are open: <ul style="list-style-type: none"> • PHB-M3209, Battery Charger D PKD-H14. • PHB-M3210, to voltage regulator for 120VAC Vital Distribution Panel PND-V28. 	Examinee ensures both of the following breakers are open on cabinet PHB-M32: <ul style="list-style-type: none"> • PHB-M3209, Battery Charger D PKD-H14. • PHB-M3210, to voltage regulator for 120VAC Vital Distribution Panel PND-V28. <p>If requested CUE: Evaluator may cue breakers are open either individually as manipulated, or as a group when complete:</p> <ul style="list-style-type: none"> • PHB-M3209 is open. • PHB-M3210 is open.

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JP03^{#*}

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
5.	* Place ALL of the disconnect switches on DGB-C01, DG Disconnect Cabinet, in "LOCAL". (100 ft Control Bldg Switchgear Room B)	Examinee simulates placing the following handswitches in the "local" position: NOTE: See CUEs below as switches are being manipulated. J-DGB-HS-2A in local J-DGB-HS-2B in local E-PEB-HS-2 in local J-HDB-HS-14A in local J-DFB-HS-22C in local If requested CUE: Evaluator may cue switches in "local" position either individually as manipulated, or as a group when complete.

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JP03^{#*}

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
6.	* Ensure that ALL the following breakers on PBB-S04 have their disconnect in LOCAL and their breaker OPEN:	Ensure that ALL the following breakers on PBB-S04 have their disconnect in LOCAL and their breaker OPEN:
	<ul style="list-style-type: none"> • PBB-S04S • PBB-S04M • PBB-S04L • PBB-S04K • PBB-S04G • PBB-S04F • PBB-S04C • PBB-S04B 	<ul style="list-style-type: none"> • PBB-S04S • PBB-S04M • PBB-S04L • PBB-S04K • PBB-S04G • PBB-S04F • PBB-S04C • PBB-S04B
	Ensure that ALL the following breakers on PBB-S04 have their disconnect in LOCAL:	Ensure that ALL the following breakers on PBB-S04 have their disconnect in LOCAL (These breakers to the Load Centers remain closed, they are not opened):
	<ul style="list-style-type: none"> • PBB-S04N • PBB-S04J • PBB-S04H 	<ul style="list-style-type: none"> • PBB-S04N • PBB-S04J • PBB-S04H
		If requested CUE: Evaluator may cue switches in LOCAL position and breakers OPEN (Green light ON, Red light OFF) either individually as manipulated, or as a group when complete.

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JP03^{#*}

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
7.	* Place all the following disconnect switches in "LOCAL": <ul style="list-style-type: none"> • CS-2/B2 on PGB-L36B1 • CS-1/B2 on PGB-L34B1 • CS-1/B2 on PGB-L32B1 • CS-2/C4 on PGB-L32C1 	Examinee simulates placing the following disconnect switches in "LOCAL": <ul style="list-style-type: none"> • CS-2/B2 on PGB-L36B1 • CS-1/B2 on PGB-L34B1 • CS-1/B2 on PGB-L32B1 • CS-2/C4 on PGB-L32C1 <p>If requested CUE: Evaluator may cue switches in LOCAL position either individually as manipulated, or as a group when complete.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
8.	* OPEN PGB-L32C4, Charging Pump 2 CHB-P01.	Examinee simulates opening breaker PGB-L32C4. If requested, CUE: PGB-L32C4 is open (Green light ON, Red light OFF).

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JP03^{#*}

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
9.	* If Diesel Generator B is NOT running, THEN, start D/G 'B' by pressing DGB-HS-031, EMERGENCY START- SIMULATED LOP. (DG B Control Panel)	Examinee simulates starting 'B' D/G by depressing DGB-HS-31. Inform CUE: D/G 'B' has started. NOTE: TIME CRITICAL PORTION OF THIS JPM STARTS WHEN THE ABOVE CUE IS GIVEN. START TIME: _____

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
10.	If ALL the following conditions for closing the D/G output breaker are met, <ul style="list-style-type: none"> • Diesel Generator B voltage is 3740 – 4580 VAC • Diesel Generator B frequency is 58.8 – 61.2 Hz. • The 86 lockout relays for the PBB-S04 normal and alternate supply breakers are NOT tripped <p>THEN continue in this appendix.</p>	Examinee determines that voltage and frequency conditions are acceptable. Evaluates 86 lockout relay condition for PBB-S04 normal and alternate supply breakers by observing trip flags on 786 Lockout Reset switches for PBB-S04K and PBB-S04L. When requested CUE: Voltage is 4240 VAC and frequency is 60 Hz. If requested CUE: The 86 lockout relays for the PBB-S04 normal and alternate breakers have black flags and the handle is at the 12-o'clock position.

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JP03**

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
11. *	Close the breaker PBB-S04B, Diesel Generator PEB-G02, using the local control switch.	Examinee simulates closing the PBB-S04B breaker using the local control switch. If requested CUE: Red light ON, green light OFF on PBB-S04B.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
12. *	Ensure that ALL of the following breakers are closed: <ul style="list-style-type: none"> PBB-S04C, Essential Spray Pond Pump SPB-P01* PBB-S04H, 4160 – 480 LC PBB-S04J, 4160 – 480 LC PBB-S04M, EWB-P01 PBB-S04G, ECB-E01 PBB-S04N, 4160 – 480 LC PBB-S04S, AFB-P01 PGB-L32C4, Charging Pump 2 	Examinee simulates positioning 'local' breaker PBB-S04C CS-1 handswitch to START. Only breaker PBB-S04C is critical. If requested CUE: PBB-S04C indicates Red light ON, green light OFF *NOTE: TIME CRITICAL PORTION ENDS HERE WITH START OF SPB-P01. FINISH Time _____ *NOTE: Spray pond pump must be started within 15 minutes following D/G start with no load. If requested CUE: Evaluator may cue the remainder of the breaker positions (Green light OFF, Red light ON) either individually as manipulated, or as a group when complete.
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



JP03^{#*}

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
13.	Inform the CRS that PBB-S04 is energized by DG B and ALL of the following pumps are running: <ul style="list-style-type: none"> • Charging Pump B • Aux Feed Pump B • Spray Pond Pump B • Essential Cooling Water Pump B 	Examinee informs the CRS of the status of DG B and the running pumps. If requested CUE: Evaluator may cue the bus status and breaker positions either individually as manipulated, or as a group when complete. Inform CUE: The CRS has been informed that PBB-S04 is powered by the “B” DG and another operator will complete Appendix E.

SAT _____ UNSAT _____ (UNSAT requires comments)

NORMAL TERMINATION POINT

COMMENTS:



JP03^{#*}
PVNGS JOB PERFORMANCE MEASURE

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
2	10/10/96	6	New Format
3	10/11/96	3,6	More format changes per OTG-02
04	01/03/97	6	Task Standard Change
5	05/08/01	3	

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



JP03^{#*}
PVNGS JOB PERFORMANCE MEASURE

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **The control room has been evacuated due to a fire.**
- **There has been a loss of offsite power. No automatic start and loading of the Emergency Diesel Generators, or load shed has occurred.**
- **The CRS directs you to complete Appendix E of 40AO-9ZZ19 (PBB-S04 Deenergized), to manually start and load the "B" Diesel Generator.**
- **Assume you have a portable lantern.**

SAFETY CONSIDERATIONS:

- None

THIS JPM CONTAINS A TIME CRITICAL ELEMENT.



JS1 (LOWER MODE)
PVNGS JOB PERFORMANCE MEASURE

JPM BASIS INFORMATION

TASK: 1240002801 Perform LM to place Train A LPSI on SDC
TASK STANDARD: Place 'A' SDC in service
K/A: 4.2025AK3.04 K/A RATING: RO: 3.1 SRO: 3.4
K/A: 4.4E09EA2.2 K/A RATING: RO: 3.5 SRO: 4.0
APPLICABLE POSITION(S): RO/SRO VALIDATION TIME: 20 minutes
REFERENCES: 40EP-9EO10, Standard Appendices, Appendix 229, Revision 20
SUGGESTED TESTING ENVIRONMENT: SIMULATOR X PLANT

APPROVAL

DEVELOPER: W. Potter TECH REVIEW:
REVISION DATE: 06/29/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR PLANT
TESTING METHOD: SIMULATE PERFORM

EVALUATION

EXAMINEE NAME: _____ (print)
EVALUATOR NAME: _____ (print)

SATISFACTORY UNSATISFACTORY

Time Start Time Stop

REMEDIAL TRAINING REQUIRED? YES NO
(SEE 15TD-0TR03)



**JS1 (LOWER MODE)
PVNGS JOB PERFORMANCE MEASURE**

1. SIMULATOR SETUP:

A. IC# : 4 (Mode 5, SDC "B" in service)

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	IMF ED11C	Deenergize PBB-S04 due to a bus fault
2.	MRF EG21 STOP	Emergency stop 'B' DG after it has started
3.	MRF MV09:SIAHV657 1	Initiates leak by of SIA-HV-657 to match actual plant conditions
4.		
5.		
6.		

C. SPECIAL INSTRUCTIONS:

- With simulator in IC-4, go to **RUN**.
- Insert malfunctions and remote functions listed above.
- Start the Train "A" SP, EW, and EC equipment IAW Standard Appendix 229.
- If letdown flow is oscillating, and a constant letdown flow is desired, close the backpressure control valves. Then reopen them to establish about a 30 gpm letdown flow.
- Acknowledge alarms and **FREEZE** the simulator.
- Hang yellow tags on 'A' and 'B' LPSI and CS pump minimum flow recirculation valves.
- Provide **INITIATING CUE**, then place simulator in **RUN**.

D. REQUIRED CONDITIONS:

- Verify Mode 5 conditions
- PBB-S04 de-energized due to a bus fault
- 'B' DG has been emergency stopped
- SP A, EW A, and EC A are operating to support Train "A".
- Ensure SIA-HV-657 red light is NOT lit. If it is, throttle close SIA-HV-657 until red light is off.

2. SPECIAL TOOLS/EQUIPMENT:

- None



**JS1 (LOWER MODE)
PVNGS JOB PERFORMANCE MEASURE**

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **The plant is in Mode 5.**
- **PBB-S04 has been deenergized due to a bus fault.**
- **The CRS is implementing the Lower Mode Functional Recovery Procedure.**
- **‘A’ LPSI pump is currently aligned in standby for SDC. It is not running to support another success path.**
- **You have been directed to place ‘A’ LPSI in service on SDC per Appendix 229 of 40EP-9EO10 Standard Appendices, beginning at step 5, and stabilize RCS temperature at its current value. Actions through step 4 have been completed.**
- **Radiation Protection and RMS Technician have been informed.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG-1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Manager of in-plant JPM performance.

SAFETY CONSIDERATIONS:

- None



**JS1 (LOWER MODE)
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
1.	* Start 'A' LPSI(SDC) pump. (Appendix 229 step 5)	Examinee starts 'A' LPSI(SDC) pump by taking its handswitch to start and releasing it back to auto. If Requested CUE: 'A' LPSI pump red light on and green light off.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.	Check LPSI(SDC) pump running current is less than 60 amps. (Appendix 229 step 6)	Examinee verifies 'A' LPSI(SDC) pump amps are less than 60 amps. If Requested CUE: 'A' LPSI pump amps are 45 amps.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
3.	If the plant is in Mode 4, then throttle open SIA-HV-306 to establish a SDC flow of 4000-4750 gpm. (Appendix 229 step 7)	Not Applicable - Examinee determines that the plant is <u>not</u> in mode 4. Plant is in mode 5.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**JS1 (LOWER MODE)
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
4.	* Throttle open SIA-HV-306 to establish 3780-4750 gpm. (Appendix 229 step 8) (One SDC pump with RCS level greater than 103 feet 1 inch).	Examinee throttles open SIA-HV-306 until flow rate is between 3780-4750 gpm. If Requested CUE: Flow rate indicates 4150 gpm.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
5.	Perform all of the following to establish SDC flow: <ul style="list-style-type: none"> Adjust SIA-HV-306 as necessary to maintain desired SDC flow. (Appendix 229 step 9.a)	Examinee adjusts SIA-HV-306 to maintain SDC flow rate between 3780-4750 gpm. Note: This step is applicable during JPM steps 5 through 9 (Procedure step 9.a through 9.e). If Requested CUE: Flow rate indicates 4150 gpm.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
6.	Perform all of the following to establish SDC flow: <ul style="list-style-type: none"> Throttle open SIA-UV-635 to between 5 and 15%. (Appendix 229 step 9.b)	Examinee throttles open SIA-UV-635 to between 5 and 15%. If Requested CUE: SIA-UV-635 is 10% open.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**JS1 (LOWER MODE)
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
7.	If at any time the SDC Hx heatup rate exceeds 19 degrees per minute then reduce the flow through the SDCHX. (Appendix 229 step 9.c)	Examinee monitors SDC Hx heatup rate and if it exceeds 19 degrees per minute then throttles closed on SIA-UV-635 to reduce heatup rate (as read on SIA TR 351, green pen). If requested CUE: SDC Hx heatup rate is 15 degrees per minute.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
8.	When the SDC Hx heatup rate has been stabilized then throttle open SIA-UV-645 to between 5 and 15% open. (Appendix 229 step 9.d)	Examinee throttles SIA-UV-645 to between 5 and 15% open while monitoring heatup rate. If Requested CUE: SIA-UV-645 is 10% open.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
9.	Adjust SIA-HV-657 as necessary to control RCS temperature. (Appendix 229 step 9.e)	Examinee adjusts SIA-HV-657 as necessary to control RCS temperature to current value per initiating CUE. If Requested CUE: RCS temperature is stabilized at its current value.
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



**JS1 (LOWER MODE)
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
10. *	Perform the following to close SIA-HV-691(warmup bypass valve): <ul style="list-style-type: none"> • Throttle SIA-UV-635 open • Throttle SIA-UV-645 open • Throttle SIA-HV-691 closed (Appendix 229 step 10.a & 10.b)	Examinee throttles SIA-UV-635 and SIA-UV-645 open and SIA-HV-691 is closed. If Requested CUE: SIA-UV-635 and SIA-UV-645 are open and SIA-HV-691 is closed.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
11.	When SIA-HV-691 is closed then hold SIA-HS-691 for five seconds. (Appendix 229 step 10.c.1)	Examinee holds SIA-HS-691 closed for 5 seconds. If Requested CUE: SIA-HS-691 has been held in closed position for 5 seconds.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
12.	Direct a second operator to hold SIA-HS-691 closed for an additional five seconds. (Appendix 229 step 10.c.2)	Examinee notifies CRS of need for an additional operator to hold SIA-HS-691 closed for 5 seconds. Inform CUE: SIA-HS-691 has been held closed for 5 seconds by a second operator.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



**JS1 (LOWER MODE)
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
13. *	Perform the following to fully open the LPSI(SDC) injection valves: Throttle the following valves incrementally to maintain the desired SDC flow while fully opening the LPSI injection valves. <ul style="list-style-type: none"> • SIA-HV-306 • SIA-HV-657 Throttle open the LPSI injection valves. (SIA-UV-635, SIA-UV-645) (Appendix 229 step 11)	Examinee maintains SDC flow rate between 3780-4750 gpm by throttling SIA-HV-306 and SIA-HV-657 while opening the LPSI injection valves (SIA-UV-635 & SIA-UV-645). Note: Valves may already be in desired positions due to previous valve manipulations. If Requested CUE: SDC flow is 4150 gpm. If Requested CUE: LPSI injection valves are fully open and RCS temperature is constant.

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
14.	If RWLIS is in service then perform the following: <ul style="list-style-type: none"> • Place the refueling water level flow compensation selector in the “Channel A” position. • Place the refueling water level alarm enable selector in the “Both” position. (Appendix 229 step 12)	Examinee determines that RWLIS is not in service and the step is not applicable. If Requested CUE: RWLIS is not in service.

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



**JS1 (LOWER MODE)
PVNGS JOB PERFORMANCE MEASURE**

STEP	ELEMENT	STANDARD
15.	Inform the CRS that LPSI(SDC) Pump A is on SDC. (Appendix 229 step 13)	Examinee informs the CRS that LPSI(SDC) Pump A is on SDC. Inform CUE: Another operator will continue RCS temperature control operations.
SAT _____	UNSAT _____	(UNSAT requires comments)

NORMAL TERMINATION POINT

COMMENTS:



**JS1 (LOWER MODE)
PVNGS JOB PERFORMANCE MEASURE**

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
0	03/31/99	0	New JPM
1	4/25/01	3	
2	6/29/01	6	Removed first steps of procedure to shorten JPM.

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



**JPM JS2
PVNGS JOB PERFORMANCE MEASURE**

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **The plant is in Mode 5.**
- **PBB-S04 has been deenergized due to a bus fault.**
- **The CRS is implementing the Lower Mode Functional Recovery Procedure.**
- **'A' LPSI Pump is currently aligned in standby for SDC. It is not running to support another success path.**
- **You have been directed to place 'A' LPSI in service on SDC per Appendix 229 of 40EP-9EO10 Standard Appendices, beginning at step 5, and stabilize RCS temperature at its current value. Actions through step 4 have been completed.**
- **Radiation Protection and RMS Technician have been informed.**

SAFETY CONSIDERATIONS:

- None



JS-2
PVNGS JOB PERFORMANCE MEASURE

JPM BASIS INFORMATION

TASK: 1250340201 Respond to temperature instrument failures.
TASK STANDARD: Take actions, for Reactor Regulating System, with TLI-1 failed high with TLI selected to AVERAGE with CEDMC in Auto Sequential.
K/A: P-S01S-001-000-A1-02 K/A RATING: RO: 3.1 SRO: 3.4
K/A: K/A RATING: RO: SRO:
APPLICABLE POSITION(S): RO VALIDATION TIME: 10 min
REFERENCES: 40AO-9ZZ16, RRS MALFUNCTION, Rev 5
SUGGESTED TESTING ENVIRONMENT: SIMULATOR X PLANT X

APPROVAL

DEVELOPER: J. Shannon TECH REVIEW:
REVISION DATE: 4/25/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR _____ PLANT _____
TESTING METHOD: SIMULATE _____ PERFORM _____

EVALUATION

EXAMINEE NAME: _____
(print)

EVALUATOR NAME: _____
(print)

SATISFACTORY _____ UNSATISFACTORY _____

Time Start _____ Time Stop _____

REMEDIAL TRAINING REQUIRED? YES _____ NO _____



JS-2
PVNGS JOB PERFORMANCE MEASURE

1. SIMULATOR SETUP:

A. IC# : 20 (100% power, MOC)

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.		
2.		
3.		
4.		

C. SPECIAL INSTRUCTIONS:

- Reset to 100% power IC.
- Ensure TLI in “Average” at RRS Test Panel.
- IMF TR01:MTNPT11A 839 (fail TLI-1 High).
- Go to RUN on Simulator.
- Place CEDMCS in “STANDBY”.
- Acknowledge alarms and FREEZE simulator.
- Provide INITIATING CUE.
- Go to “RUN” on simulator.

D. REQUIRED CONDITIONS:

- 100% power, TLI-1 failed high, CEDMCS in STANDBY.

2. SPECIAL TOOLS/EQUIPMENT:

- None



JS-2
PVNGS JOB PERFORMANCE MEASURE

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- The examiner will provide all responses and indications required from outside the control room.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **A TLI instrument has failed high. TLI is selected to average. The plant is stable.**
- **The CRS directs you to perform the corrective actions necessary for a failed TLI input in accordance with 40AO-9ZZ16.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG 1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Supervisor of in-plant JPM performance.

SAFETY CONSIDERATIONS:

- None



JS-2
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
1.	Obtain procedure 40AO-9ZZ16.	Procedure 40AO-9ZZ16 is obtained.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.	Ensure CEDMCS is NOT in Auto Sequential.	Removes CEDMCS from Auto Sequential.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
3.	* If SBCS has responded or the CRS directs then: a. Place SBCS in LOCAL AUTO: <ul style="list-style-type: none"> • Adjust Local-Auto setpoint thumbwheel to match Remote Setpoint • Place controller in MANUAL. • Place Remote/Local Selector to LOCAL. • Place the controller in AUTO b. Restore SG pressure to the desired operating band as needed.	<p>Inform Cue: CRS directs you to place SBCS in “Local Auto”.</p> <p>Examinee places SBCS in “LOCAL AUTO” (May be performed using 40OP-9SF05 in hand or skill of craft). Should not result in plant transient.</p> <p>Examinee recognizes SG pressure is in the desired operating band, no adjustment necessary.</p> <p>If requested Cue: Steam Generator pressure is within the desired operating band.</p>
SAT _____ UNSAT _____ (UNSAT requires comments)		

4.	* Determine the failed instrument by comparing the DVM indications for TLI-1 and TLI-2 at the RRS test drawer.	<p>Determines TLI-1 failed.</p> <p>Note: At 100% power the DVM reads approximately 8 volts.</p>
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



JS-2
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
5.	Determine the impact of the TLI-1 failure. Refer to Appendix B.	Examinee Refer to Appendix B (May list these to examiner).
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
6.	Determine if RRS is selected to “Average”. Perform both of the following: a) Ensure SBCS is in ONE of the following: <ul style="list-style-type: none"> • LOCAL AUTOMATIC • MANUAL * b) Select the unaffected instrument at the RRS panel.	Examinee determines RRS in “Average”. Examinee ensures that SBCS is in “LOCAL AUTO”.(performed at step 3). Examinee selects TLI-2 at the RRS panel.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
7.	Check the T_{avg}/T_{ref} mismatch is 3°F or less.	Examinee checks that the T_{avg}/T_{ref} mismatch is less than or equal to 3°F. If Requested CUE: T_{avg}/T_{ref} mismatch is 1°F.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
8.	Place CEDMCS in the desired mode of operation. * Place CEDMCS in “Auto Sequential”.	Inform CUE: The CRS requests you to place CEDMCS in “Auto Sequential”. Examinee places CEDMCS in “Auto Sequential”.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



JS-2
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
9.	* As the CRS directs then: Place SBCS in "REMOTE AUTO": <ul style="list-style-type: none"> • Place controller in MANUAL. • Place Remote/Local Selector to REMOTE. • When the steam pressure is less than SBCS modulation setpoint then, place the controller in AUTO • Adjust Local-Auto setpoint to 1170 psia. 	Inform CUE: The CRS requests you to place SBCS in "Remote Auto". Examinee returns SBCS to "REMOTE AUTO" per 40OP-9SF05 or skill of craft. Should not result in plant transient.
SAT _____ UNSAT _____ (UNSAT requires comments)		

NORMAL TERMINATION POINT

COMMENTS:



JS-2
PVNGS JOB PERFORMANCE MEASURE

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
10	04/18/97	6	New Format
11	07/01/97	6	Clarified Conditions
12	4/25/01	3	

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



JS-2
PVNGS JOB PERFORMANCE MEASURE

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- The examiner will provide all responses and indications required from outside the control room.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **A TLI instrument has failed high. TLI is selected to average. The plant is stable.**
- **The CRS directs you to perform the corrective actions necessary for a failed TLI input in accordance with 40AO-9ZZ16.**

SAFETY CONSIDERATIONS:

- None



JS3*
PVNGS JOB PERFORMANCE MEASURE

JPM BASIS INFORMATION

TASK: 1250010201 Respond to a condition requiring emergency boration and contingencies.
TASK STANDARD: Perform Emergency Boration using CHN-HV-514, Alternate Path.
K/A: 3.1-004-A2.14.01 K/A RATING: RO: 3.8 SRO 3.9
K/A: 4.2-024-AK3.01 K/A RATING: RO: 4.1 SRO: 4.4
APPLICABLE POSITION(S): RO/SRO VALIDATION TIME: 15 min
REFERENCES: 40AO-9ZZ01, Emergency Boration, Rev 8
SUGGESTED TESTING ENVIRONMENT: SIMULATOR X PLANT

APPROVAL

DEVELOPER: J. Shannon TECH REVIEW:
REVISION DATE: 04/17/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR PLANT
TESTING METHOD: SIMULATE PERFORM

EVALUATION

EXAMINEE NAME: (print)
EVALUATOR NAME: (print)
SATISFACTORY UNSATISFACTORY
Time Start Time Stop
REMEDIAL TRAINING REQUIRED? YES NO
(SEE 15TD-0TR03)



JS3*
PVNGS JOB PERFORMANCE MEASURE

1. SIMULATOR SETUP:

- IC# : Reset to any power IC. (IC 20 preferred)

A. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	IMF RD03G	CEA # Stuck
2.	IMF RD03B	CEA # Stuck
3.	IMF RD03C	CEA # Stuck
4.	IMF MV06:CHEHV536	Mechanical seizure of CHE-HV-536 in closed position.
5.		
6.		
7.		

SPECIAL INSTRUCTIONS:

- Place simulator in RUN.
- Ensure malfunctions have actuated per Table A above.
- Manually trip the reactor and acknowledge alarms.
- Ensure CHE-HV-501 is OPEN.
- Ensure CHN-FIC-210X has GREATER THAN 0% output to make step 15 critical.
- FREEZE simulator.
- Provided INITIATING CUE.
- Place simulator in RUN.
- **Step 14 requires simulator driver actions.**

REQUIRED CONDITIONS:

- Reactor TRIPPED, plant in process of stabilization.
- 3 CEA's not fully inserted.
- CHE-HV-536 CLOSED and mechanically seized.

2. SPECIAL TOOLS/EQUIPMENT:

- None



JS3*
PVNGS JOB PERFORMANCE MEASURE

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- The examiner will provide all responses and indications required from outside the control room.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **You are the Third RO. A reactor trip has occurred.**
- **Three CEA's are stuck out.**
- **The Primary Operator is performing Standard Post Trip Actions.**
- **The CRS has directed you to line up to borate the RCS per procedure, 40AO-9ZZ01, Emergency Boration. The RWT is not on PC Cleanup Pump recirculation.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG-1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Manager of in-plant JPM performance.
- **Step 14 requires simulator driver actions.**

SAFETY CONSIDERATIONS:

- None



JS3*
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
1.	Obtain procedure 40AO-9ZZ01, Emergency Boration.	Examinee obtains 40AO-9ZZ01, Emergency Boration and goes to section 4.0
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.	Check that a charging pump is available for emergency boration.	Examinee determines two charging pumps are running. If requested CUE: Two charging pumps are running.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
3.	Check that RWT level is >73% and that the RWT is available for emergency boration.	Operator checks that RWT level is >73% and that the RWT is available for emergency boration. If requested CUE: RWT level is >73% and available for emergency boration.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



JS3*
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
4.	Ensure CHE-HV-532, RWT to Boric Acid Makeup Pumps, indicate open	Determines that CHE-HV-532 is open. If requested CUE: CHE-HV-532 indicates GREEN light “off”, RED light “on”
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
5.	Perform all of the following to align CHN-UV-536: <ul style="list-style-type: none"> • Refer to Appendix F. • Ensures BAMPs are stopped. • OPEN CHN-HV-536. 	Examinee determines that CHN-HV-536 will not open; goes to contingency actions to align CHN-UV-514. If examinee requests local operation of valve, Inform CUE: CHN-HV-536 will not open. If requested CUE: CHE-HV-536 will not open.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
6.	Perform all of the following to align CHN-UV-514:	Note: JPM steps 6 through 12 address procedure step 4 Contingency Actions.
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



JS3*
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
7.	Refer to Appendix F, Simplified Drawings for a basic flow view.	Examinee refers to App. F.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
8.	Ensure CHN-HV-536, RWT to Charging Pumps is closed.	Examinee ensures CHN-HV-536 is closed.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
9.	* <u>Open</u> CHN-UV-514.	Examinee opens CHN-UV-514.
		If requested CUE: CHN-UV-514 indicates GREEN light “off”, RED light “on”
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
10.	* <u>Close</u> CHN-UV-510, BAMP Recirc. to the RWT	Examinee closes CHN-UV-510.
		If requested CUE: CHN-UV-510 indicates RED light “on”, GREEN light “off”.
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



JS3*
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
11.	If a BAMP is not available then perform both of the following:	Examinee determines that BAMPs are available; this step is not applicable. If requested CUE: A Boric Acid Makeup Pump is available.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
12. *	If a BAMP is available, start a BAMP.	Examinee ensures a BAMP is running. If requested CUE: BAMP indicates RED light “on”, GREEN light “off”.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
13. *	Place and hold CHN-HS-501, VCT Outlet to CLOSE.	Examinee closes and holds closed CHN-HS-501. If requested CUE: CHN-HS-501 indicates GREEN light “on”, RED light “off”
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



JS3*

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
14.	Direct an operator to open NHN-M7208, CHN-UV-501. WHEN NHN-M7208 is open, THEN release CHN-HS-501.	Directs an operator to open NHN-M7208. Releases CHN-UV-501 when breaker is open. Note: Driver must execute the following command - MRF B401:CHNUV501 OPEN If requested CUE: Breaker NHN-M7208 is open.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
15.	<u>Ensure</u> CHN-UV-527, VCT Bypass, is closed.	Ensures CHN-UV-527 is closed. If requested CUE: CHN-UV-527 indicates GREEN light "ON", RED light "OFF"
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
16. *	Adjust CHN-FIC-210X, Reactor Makeup water to VCT Flow Control, to 0% output.	Examinee determines output is greater than zero; adjusts output to zero. CHN-FIC-210X in manual with 0% output If requested CUE: CHN-FIC-210X output is greater than 0%.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



JS3*
PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
17.	IF a PC Cleanup Pump is recirculating the RWT AND three charging pumps will be used, THEN perform both of the following:	From INITIATING CUE, this Step is not applicable. Inform CUE: The RWT is not on a recirculation lineup.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
18.	(Procedure step 8 Instructions) If at least one charging pump is running AND it is desired to start additional charging pumps THEN GO TO step 13.	Inform CUE: It is not necessary to start additional charging pumps. Another operator will complete the remaining steps.
SAT _____ UNSAT _____ (UNSAT requires comments)		

NORMAL TERMINATION POINT

COMMENTS:



JS3*
PVNGS JOB PERFORMANCE MEASURE

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
0	4/25/01	6	New JPM

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



JS3*
PVNGS JOB PERFORMANCE MEASURE

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- The examiner will provide all responses and indications required from outside the control room.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **You are the Third RO. A reactor trip has occurred.**
- **Three CEA's are stuck out.**
- **The Primary Operator is performing Standard Post Trip Actions.**
- **The CRS has directed you to line up to borate the RCS per procedure, 40AO-9ZZ01, Emergency Boration. The RWT is not on PC Cleanup Pump recirculation.**

SAFETY CONSIDERATIONS:

- None



JS-4 *

PVNGS JOB PERFORMANCE MEASURE

JPM BASIS INFORMATION

TASK: 0100010401 Operate the Pressurizer Pressure Control System
 TASK STANDARD: Pressurizer pressure restored to 2250 ± 25 psia using Auxiliary Spray.
 K/A: 4.2-027-A1.01 K/A RATING: RO: **4.0** SRO: **3.9**
 APPLICABLE POSITION(S): RO/SRO VALIDATION TIME: 10 Minutes
 REFERENCES: 41AL-1RK4A, Panel B04A Alarm Responses, Rev 34
 SUGGESTED TESTING ENVIRONMENT: SIMULATOR XX PLANT _____
 ALTERNATE PATH _____

APPROVAL

DEVELOPER: J. Shannon TECH REVIEW:
 REVISION DATE: 4/25/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR _____ PLANT _____
 TESTING METHOD: SIMULATE _____ PERFORM _____

EVALUATION

EXAMINEE NAME: _____
 (print)
 EVALUATOR NAME: _____
 (print)
 SATISFACTORY _____ UNSATISFACTORY _____
 Time Start _____ Time Stop _____
 REMEDIAL TRAINING REQUIRED? YES _____ NO _____



JS-4 *

PVNGS JOB PERFORMANCE MEASURE

1. SIMULATOR SETUP:

- A. IC#20: Or any normal operating pressure IC (IC 20 preferred).
- B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	IMF RC02A 0	Fails Pressurizer Spray Valve 100E Closed
2.	IMF RC02B 0	Fails Pressurizer Spray Valve 100F Closed
3.	IOR ZDRCNHS100 ASIS	Fails PPCS selector switch to the "X" position
4.	IMF TR01:RCNPT100X 1500	Fails Pressurizer Pressure Control Channel "X" to 1500 psia

2. SPECIAL INSTRUCTIONS:

- Reset to IC 20 (or any normal operating pressure IC, IC 20 preferred).
- With simulator in FREEZE, insert the Malfunctions and Overrides
- Go to RUN on the simulator.
- Ensure PPCS on channel X.
- On QSPDS call up page 223, RCS Pressure Control.
- As soon as PZR PRESS HI-LO alarm is received, acknowledge alarms and FREEZE the simulator.
- Provide INITIATING CUE.
- When examinee is ready to perform actions, go to RUN.

A. REQUIRED CONDITIONS:

- PZR Press Hi/Lo alarm received.
- QSPDS on page 223.

B. SPECIAL TOOLS/EQUIPMENT:

- NONE



JS-4 *
PVNGS JOB PERFORMANCE MEASURE

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The Pressurizer Pressure HI/LO alarm has been received due to a high pressure condition and pressure is increasing. The CRS directs you to:

- **Take alarm response procedure FIRST and SECOND PRIORITY actions for window 4A01B.**
- **Restore pressurizer pressure to 2250 psia.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- NOTE: Alternate Path JPM
- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG 1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Supervisor of in-plant JPM performance.

SAFETY CONSIDERATIONS:

- NONE



JS-4 *

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
1.	Obtain Annunciator Alarm Response Manual 41AL-1RK4A, Window 4A01B, Group B.	Examinee obtains 41AL-1RK4A, Group B for PZR PRESS HI-LO.

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
2. *	Trip reactor if high pressure trip is impending (\geq 2383 psia) and proceed to 40EP-9EO01.	Examinee determines Pressurizer Pressure < 2383 psia, and high pressure trip is not pending. The Reactor is NOT manually tripped. TERMINATE JPM, IF REACTOR IS TRIPPED. JPM would be UNSAT. If requested CUE: RCS pressure indicates 2300 psia on PT-100Y and increasing

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
3.	Verify pressurizer pressure high alarm by observing RCN-PIC-100X and/or RCN-PIC-100Y or recorder RCN-PR-100 (B04).	Examinee determines actual high pressure condition exists. If requested CUE: RCS pressure indicates 2300 psia on PT-100Y and increasing

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JS-4 *

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
4.	Verify that the controlling channel transmitter has not failed.	Examinee determines the controlling channel, CH "X", has failed. If requested CUE: RCS pressure indicates <1500 psia on PT-100X

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
5.	Switch to unaffected channel using RCN-HS-100.	Examinee selects Channel "Y " NOTE: Will have no affect due to switch failure. If requested CUE: RCS pressure (PT-100Y) indicates > 2300 psia and increasing

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
6.	Manually initiate pressurizer spray flow using: <ul style="list-style-type: none"> • RCN-PIK-100 • RCN-HS-100-10, Spray Valve select switch as necessary. to reduce pressure to normal band.	Examinee determines normal spray doesn't respond. If requested CUE: <ul style="list-style-type: none"> • Spray Valve RC100E indicates green light on. • Spray Valve RC100F indicates green light on.

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JS-4 *

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
7. *	Initiates Aux Spray to reduce RCS pressure to normal band using CHA-HS-205 and/or CHB-HS-203 on B03.	<p>Examinee initiates Aux Spray Flow and observes pressurizer pressure lowering. Lowers and controls Pressurizer pressure to 2250 ±25 psia.</p> <p>If requested CUE (for Aux Spray Valve opened):</p> <ul style="list-style-type: none"> • Aux Spray Valves HS-203 indicates red light on and RCS pressure is lowering. • Aux Spray Valves HS-205 indicates red light on and RCS pressure is lowering.

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
8.	If a reactor trip is not required, minimize rate of load changes to facilitate pressure control, until the cause is determined and corrected.	<p>Examinee ensures load changes are minimized.</p> <p>Inform CUE: The CRS has stated that there will be no load changes until the cause of the pressure failures is determined.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JS-4 *

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
9.	* De-energize Pressurizer heaters as required to limit pressure increases.	Examinee de-energizes Pressurizer heaters to limit pressure increase. Pressure controlled at 2250 ±25 psia.
		Inform QUE: Another operator will perform independent verification activities.
		If requested CUE: Pressurizer heaters are being energized (red light on) or deenergized (green light on) as required to maintain 2250 ± 25 psia.

SAT _____ UNSAT _____ (UNSAT requires comments)

NORMAL TERMINATION POINT

COMMENTS:



JS-4 *
PVNGS JOB PERFORMANCE MEASURE

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
13	07/25/96	3,6	New Format per OTG-02
14	10/10/96	6	More Format changes per OTG-02
15	4/25/01	3	

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



JS-4 *
PVNGS JOB PERFORMANCE MEASURE

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The Pressurizer Pressure HI/LO alarm has been received due to a high pressure condition and pressure is increasing. The CRS directs you to:

- **Take alarm response procedure FIRST and SECOND PRIORITY actions for window 4A01B.**
- **Restore pressurizer pressure to 2250 psia.**

SAFETY CONSIDERATIONS:

- NONE



JS-5^L

PVNGS JOB PERFORMANCE MEASURE

JPM BASIS INFORMATION

TASK: 1240025601 - Cross-Tie Diesel Generator B to PBA-SO3.
 TASK STANDARD: Energize and load PBA-SO3 using Diesel Generator "B".
 K/A: 3.6-064-A4.01 K/A RATING: RO: **4.0** **4.3**
 APPLICABLE POSITION(S): RO, SRO VALIDATION TIME: 15 Minutes
 REFERENCES: 40AO-9ZZ12, Degraded Electrical Power, Rev 10
 SUGGESTED TESTING ENVIRONMENT: SIMULATOR XX PLANT _____

APPROVAL

DEVELOPER: J. Shannon TECH REVIEW:
 REVISION DATE: 04/25/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR _____ PLANT _____
 TESTING METHOD: SIMULATE _____ PERFORM _____

EVALUATION

EXAMINEE NAME: _____
 (print)
 EVALUATOR NAME: _____
 (print)
 SATISFACTORY _____ UNSATISFACTORY _____
 Time Start _____ Time Stop _____
 REMEDIAL TRAINING REQUIRED? YES _____ NO _____
 (SEE OTG-04)



JS-5^L

PVNGS JOB PERFORMANCE MEASURE

1. SIMULATOR SETUP:

A. IC# : 04

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	MRF EG04 stop	Emergency Stop DG "A"
2.		
3.		
4.		

C. SPECIAL INSTRUCTIONS:

- Reset to IC-04.
- Go to RUN on the simulator.
- Manually open the following breakers:
 NBN-HS-S03A.
 NAN-HS-S03B.
 NAN-HS-S04B.
 NBN-S04A.
- Use Remote Function EG04 STOP, to Emergency stop DG "A".
- After Diesel Generator "B" is supplying PBB-S04, acknowledge alarms and FREEZE the simulator.
- Hang yellow caution tags on the LPSI and CS pump mini flow recirc valves.
- Provide INITIATING CUE.
- Go to RUN on the simulator.
- **Step 3 will require the driver to activate CAE EOP/attach58a to simulate Attachment G-1.**
- **Attachment G-1 needs to be completed by JPM step 8. The simulator driver will inform the examinee that the attachment is complete at step 8. Ensure completion of CAE EOP/attach58a.**

D. REQUIRED CONDITIONS:

- PBA-S03 de-energized
- Diesel Generator A tripped.

2. SPECIAL TOOLS/EQUIPMENT:

- NONE



JS-5^L
PVNGS JOB PERFORMANCE MEASURE

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The plant is in Mode 5. PBA-S03 is NOT energized. Diesel Generator "A" is unavailable. The CRS directs you to energize PBA-S03 using Diesel Generator "B" in accordance with 40AO-9ZZ12, Degraded Electrical Power, Appendix "G", and start loads as directed.

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG 1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Supervisor of in-plant JPM performance.
- There are two termination points in this JPM. Either one is acceptable.

SAFETY CONSIDERATIONS:

- NONE



JS-5^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
1.	Obtain a copy of 40AO-9ZZ12, Appendix G.	40AO-9ZZ12 Appendix G is obtained.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.	Ensure DG "B" running and supplying PBB-S04.	DG "B" checked running.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
3.	Direct operator to perform Attachment G-1, Disable PBA-S03 Breakers.	Directs AO to perform Attachment G-1, Disable PBA-S03 breakers.
<p>If requested CUE: An AO has been sent to perform Attachment G-1.</p> <p>Note: Simulator Driver activates a CAE for Attachment G-1. When the CAE is complete the Simulator Driver will provide the Cue that it is complete (see step 8)</p>		
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



JS-5^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
4.	Ensure all the following breakers are open: NAN-SO3A, ESF Service Transformer X03 PBA-S03K, 4.16Kv Bus S03 Alternate Supply PBA-S03L, 4.16KV Bus S03 Normal Supply NAN-S04A, ESF Service Transformer X04 PBB-S04L, 4.16 KV Bus S04 Alternate Supply PBB-S04K, 4.16 KV Bus S04 Normal Supply	The following breakers are open. NAN-SO3A, ESF Service Transformer X03 PBA-S03K, 4.16Kv Bus S03 Alternate Supply PBA-S03L, 4.16KV Bus S03 Normal Supply NAN-S04A, ESF Service Transformer X04 PBB-S04L, 4.16 KV Bus S04 Alternate Supply PBB-S04K, 4.16 KV Bus S04 Normal Supply If requested Cue: <ul style="list-style-type: none"> • NAN-SO3 green light “ON”. • PBA-S03K green light “ON”. • PBA-S03L green light “ON”. • NAN-S04A green light “ON”. • PBB-S04L green light “ON”. • PBB-S04K green light “ON”.

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
5.	Ensure that PBA-S03B, Diesel Generator “A” 4.16 KV breaker, is open	Examinee ensures Diesel Generator “A” 4.16 KV breaker, is open. If requested Cue: PBA-S03B green light “ON”

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JS-5^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
6. *	Place ALL of the following in "PULL TO LOCK": Train A Containment Normal ACU's. Train A CEDM ACU's.	Examinee places handswitches for Train A Containment Normal ACU's & Train A CEDM ACU's in "PULL TO LOCK". If requested Cue: <ul style="list-style-type: none"> • Train A Containment Normal ACU's green light on, red light off. • Train A CEDM ACU's green light on, red light off.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
7. *	Perform the following: Places synchronizing switch PBB-SS-S04K, 4.16 KV Bus S04 Normal Supply to ON. Close breaker PBB-S04K, 4.16KV Bus S04 Normal Supply. Place synchronizing selector switch, PBB-SS-S04K to "OFF".	Examinee places switch PBB-SS-S04K, selector switch to "ON". If requested Cue: Synchroscope is in the 12 o'clock position and not rotating. Examinee closes breaker PBB-S04K. If requested Cue: PBB-S04K red light is on. Examinee places Selector Switch PBB-SS-S04K to the "OFF" position. (not critical)
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



JS-5 L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
8. *	<p>WHEN Attachment G-1 is complete, then complete the following:</p> <p>Place synchronizing switch PBA-SS-S03K, 4.16 KV Bus S03 Alternate supply to "ON".</p> <p>Close breaker PBA-S03K, 4.16 KV Bus S03 Alternate Supply.</p> <p>Place synchronizing switch PBA-SS-S03K to "OFF".</p>	<p>Note: When CAE (EOP/attach58a) is complete then the Simulator Driver will provide the following Cue that Attachment G-1 is complete:</p> <p>Inform CUE: Attachment G-1 has been completed.</p> <p>Examinee places switch PBA-SS-S03K, selector switch to "ON".</p> <p>If requested Cue: Synchroscope is in the 12 o'clock position and not rotating.</p> <p>Examinee closes breaker PBA-S03K.</p> <p>If requested Cue: PBA-S03K red light is on.</p> <p>Examinee places Selector Switch PBA-SS-S03K to the "OFF" position (not critical).</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
9. *	<p>Direct an operator to perform any of the following for the battery chargers that were initially aligned to the train A 125 VDC bus(es):</p>	<p>Inform Cue: Another operator will align the battery chargers.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JS-5^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
10. *	<p>Perform all of the following to energize other PBA-S03 loads:</p> <p>Determine KW ratings of incoming loads.</p> <p>Ensure that the incoming load will not cause the diesel to exceed its two hour rating.</p> <p>Start needed loads.</p>	<p>Inform Cue: The CRS directs you to start Charging Pump “A”.</p> <p>Examinee refers to Appendix I and determines KW rating for Charging Pump “A” (61). Examinee refers to Appendix J and determines that with present load on “B” DG there is sufficient capacity to start Charging Pump “A”.</p> <p>Examinee starts Charging Pump “A”.</p> <p>Inform Cue: Another operator will start any additional needed loads.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

NORMAL TERMINATION POINT

COMMENTS:



JS-5^L
PVNGS JOB PERFORMANCE MEASURE

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
7	04/25/01	3	

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



JS-5^L
PVNGS JOB PERFORMANCE MEASURE

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

The plant is in Mode 5. PBA-S03 is NOT energized. Diesel Generator "A" is unavailable. The CRS directs you to energize PBA-S03 using Diesel Generator "B" in accordance with 40AO-9ZZ12, Degraded Electrical Power, Appendix "G", and start loads as directed.

SAFETY CONSIDERATIONS:

- None



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

JPM BASIS INFORMATION

TASK: 0120030401 Restore Containment Spray and LPSI "A" to normal operating lineup.
 TASK STANDARD: Containment Spray "A" lined up through shutdown cooling heat exchanger and LPSI "A" lined up for injection.
 K/A: 3.5-103-A4.01 K/A RATING: RO: 3.2 SRO: 3.3
 K/A: K/A RATING: : SRO
 APPLICABLE POSITION(S): RO/SRO VALIDATION TIME: 20 minutes
 REFERENCES: 40OP-9SI02, Recovery from Shutdown Cooling to Normal Lineup, Rev 38
 SUGGESTED TESTING ENVIRONMENT: SIMULATOR X PLANT

APPROVAL

DEVELOPER: J. Shannon TECH REVIEW:
 REVISION DATE: 04/25/01 APPROVAL:

TESTING METHOD

ACTUAL TESTING ENVIRONMENT: SIMULATOR PLANT
 TESTING METHOD: SIMULATE PERFORM

EVALUATION

EXAMINEE NAME: _____
 (print)
 EVALUATOR NAME: _____
 (print)

SATISFACTORY UNSATISFACTORY

Time Start Time Stop

REMEDIAL TRAINING REQUIRED? YES NO
 (SEE OTG-04)



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

1. SIMULATOR SETUP:

A. IC#4

B. MALFUNCTIONS, OVERRIDES & REMOTE FUNCTIONS:

EVENT	COMMAND	DESCRIPTION
1.	MRF b205:siap03 OUT	Cycle control power for CS pump "A"
2.	MRF b205:siap01 OUT	Cycle control power for LPSI pump "A"
3.	MRF B401:SIAUV672 CLOSE	Control power on for SIA UV 672
4.	MRF B401:siahv683 OPEN	Supply breaker to SIA-HV-683

C. SPECIAL INSTRUCTIONS:

- Ensure control power is on for SIA-UV-672, containment spray header isolation valve.
- Ensure valve SIA-HV-678, CS "A" discharge, is closed.
- Place caution tags on train A LPSI & CS pump mini flow valve handswitches (SIA HS 669 & SIA HS 664).
- Place caution tags on train B LPSI & CS pump mini flow valve handswitches (SIB HS 668 & SIB HS 665).

D. REQUIRED CONDITIONS:

- Heat removal established with reactor coolant pumps and/or train "B" shutdown cooling.
- Train "A" SI in standby shutdown cooling lineup.
- "A" containment spray system lined up to bypass shutdown cooling heat exchanger.
- Shutdown cooling heat exchanger outlet temperature is less than 200 °F.

2. SPECIAL TOOLS/EQUIPMENT:

- None



JS-7^L
PVNGS JOB PERFORMANCE MEASURE

TASK CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **A plant heatup is in progress. The CRS directs you to restore Safety Injection train “A” to its normal operating lineup per 40OP-9SI02, Recovery from Shutdown Cooling to Normal Operating Lineup, beginning at step 4.1.11.**
- **Shutdown purification is not aligned to train “A”.**
- **A flush of the SDC piping has already been performed.**
- **All prerequisites are complete.**

INFORMATION FOR EVALUATOR'S USE:

* Denotes Critical Step

- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Task Standard is met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.
- The complete load shed and manual sequencing of loads will not be performed.
- Any step marked UNSAT requires comments.
- If this is the first JPM of the set then ensure the examinee has been briefed IAW NUREG 1021.
- Step sequence is not critical unless noted or will prevent achieving the task standard.
- Notify unit Shift Supervisor of in-plant JPM performance.
- At the discretion of the Examiner/Evaluator, this JPM may be terminated when the Elements and Standards are met or adequate time has been allowed to complete the JPM. It shall be terminated when the Examinee has verbalized completion of the JPM.

SAFETY CONSIDERATIONS:

- None



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
1.	Obtain procedure 40OP-9SI02.	Procedure 40OP-9SI02 obtained. Examinee goes to step 4.1.11
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
2.	If it is desired to align train A safety injection for normal operation and both of the following conditions exists: <ul style="list-style-type: none"> The shutdown cooling loop temperature is less than 200 F, A flush of the SDC piping has been completed, Then perform all of the following:	Examinee verifies <ul style="list-style-type: none"> shutdown cooling loop temperature is less than 200 F A flush of the SDC piping has been completed. (Given in QUE) If requested Cue: A flush of the SDC piping has been completed.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
3.	* Direct an Area Operator to place the control power UC fuse for PBA-S03F, LPSI "A" supply breaker, in the OFF position.	<p>Examinee directs Area Operator to place the LPSI "A" UC fuse to OFF.</p> <p>NOTE: Simulator driver must input: MRF B205:siap01 OUT.</p> <p>After driver inputs command, Inform CUE: LPSI pump "A" control power UC fuses are in OFF.</p> <p>If requested, CUE: Control power UC fuse for PBA-S03F is in the OFF position.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
4.	* Direct an Area Operator to place the control power UC fuse for PBA-S03D, CS "A" supply breaker, in the OFF position.	<p>Examinee directs an Area Operator to place the CS "A" UC fuses to OFF.</p> <p>NOTE: Simulator driver must input: MRF B205:siap03 OUT.</p> <p>After driver inputs command Inform CUE: Containment Spray Pump "A" control power UC fuses are OFF.</p>

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
5.	* Close SIA-UV-655, Loop 1 SDC-LPSI pump "A" suction valve.	Examinee_closes SIA-UV-655. If requested CUE: Handswitch indicates green light ON, red light OFF.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
6.	* Close SIA-HV-691, SDC loop "A" warmup bypass valve.	Examinee closes SIA-HV-691, SDC loop "A" warmup bypass valve. If requested CUE: Handswitch indicates green light ON, red light OFF.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
7.	When closed indication for SIA-HV-691 is received then hold SIA-HV-691 in the closed position for 5 seconds.	Examinee holds SIA-HV-691 handswitch closed for 5 seconds. If requested CUE: Handswitch indicates green light ON, red light OFF.
SAT _____ UNSAT _____ (UNSAT requires comments)		

COMMENTS:



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
8.	A second operator shall perform all of the following to obtain an independent verification per 02DP-0ZZ02, verification of plant activities, that SIA-HV-691 is closed.	Inform QUE: The independent verification of SIA-HV-691 has been completed. The valve is verified closed.

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
9.	Ensure SIA-UV-672, Containment spray "A" discharge to spray header 1 valve is closed.	Examinee ensures SIA-UV-672 is closed. If requested CUE: Handswitch indicates green light ON, red light OFF.

SAT _____ UNSAT _____ (UNSAT requires comments)

STEP	ELEMENT	STANDARD
10.	Ensure SIA-V105, Containment spray "A" Suction Isolation valve is locked open per 40AC-0ZZ06, locked valve, breaker and component control.	Examinee ensures SIA-V105 is open by having an operator verify the valve condition locally. Inform Cue: A Nuclear Operator has verified that SIA-V105 is locked open per 40AC-0ZZ06.

SAT _____ UNSAT _____ (UNSAT requires comments)

COMMENTS:



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
11.	Ensure SIA-UV-664, CS pump "A" recirculation valve is open.	Examinee ensures SIA-UV-664 is open. If requested CUE: Handswitch indicates green light OFF, red light ON.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
12.	Ensure SIA-UV-660, Train "A" combined recirculation valve is open.	Examinee ensures SIA-UV-660 is open. If requested CUE: Handswitch indicates green light OFF, red light ON.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
13.	* Open SIA-HV-678, CS "A" discharge to shutdown cooling heat exchanger valve.	Examinee opens SIA-HV-678. If requested CUE: Handswitch indicates green light OFF, red light ON.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
14.	Close SIA-HV-686, SDCHX "A" outlet valve to RC loops 1A/1B.	Examinee closes SIA-HV-686. If requested CUE: Handswitch indicates green light ON, red light OFF.
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
15.	Ensure SIA-HV-657, SDCHX "A" outlet valve to RC loop 1A/1B is closed.	Examinee ensures SIA-HV-657 is closed. If requested CUE: Handswitch indicates green light ON, red light OFF.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
16. *	Open SIA-HV-687, LPSI-CS from SDCHX "A" crosstie valve.	Examinee opens SIA-HV-687. If requested CUE: Handswitch indicates green light OFF, red light ON.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
17. *	Close SIA-HV-685, LPSI-CS to SDCHX "A" crosstie valve.	Examinee closes SIA-HV-685. If requested CUE: Handswitch indicates green light ON, red light OFF.
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
18. *	Open SIA-HV-684, CS "A" discharge to SDCHX valve.	Examinee opens SIA-HV-684. If requested CUE: Handswitch indicates green light OFF, red light ON.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
19. *	Close SIA-HV-688, CS "A" bypass around SDCHX valve.	Examinee closes SIA-HV-688. If requested CUE: Handswitch indicates green light ON, red light OFF.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
20.	Ensure CHA-UV-531, RWT to SI train "A" valve is open.	Examinee ensures CHA-UV-531 is open. If requested CUE: Handswitch indicates green light OFF, red light ON.
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
21. *	Direct an Area Operator to restore the control power UC fuse for PBA-S03D, to the ON position.	Examinee directs an Area Operator to place the CS "A" UC fuse to ON. NOTE: Simulator driver must input: MRF B205:siap03 in. After the driver inputs the command then inform CUE: The control power UC fuse for PBA-S03D is in the ON position. If requested, CUE: UC fuse for PBA-S03D are in the ON position.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
22.	Direct an Area Operator to independently verify that the control power fuse is in the "on" position per 02DP-0ZZ01, Verification of plant activities.	Examinee directs an Area Operator to independently verify that the control power fuse for PBA-S03D is in the "ON" position. Inform CUE: The control power UC fuse for PBA-S03D is in the ON position.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
23. *	Open SIA-HV-306, SDCHX "A" bypass valve.	Examinee opens SIA-HV-306. If requested CUE: Handswitch indicates green light OFF, red light ON.
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
24. *	Open SIA-UV-669, LPSI "A" recirc to RWT valve.	Examinee opens SIA-UV-669. If requested about the Caution Tag on SIA-UV-669, CUE: The tag is an Operations tag and you have permission to operate SIA-UV-669. If requested CUE: Handswitch indicates green light OFF, red light ON.
SAT _____	UNSAT _____	(UNSAT requires comments)

STEP	ELEMENT	STANDARD
25. *	Close PHA-M3706, supply breaker to SIA-HV-683.	Examinee requests a Nuclear Operator to close PHA-M3706. NOTE: Simulator driver must input: MRF B401:siahv683 CLOSE. After the driver inputs the command then, inform CUE: Breaker PHA-M3706 is closed.
SAT _____	UNSAT _____	(UNSAT requires comments)

COMMENTS:



JS-7^L

PVNGS JOB PERFORMANCE MEASURE

STEP	ELEMENT	STANDARD
26. *	Open SIA-HV-683, LPSI "A" RWT suction valve.	Examinee opens SIA-HV-683. If requested CUE: Handswitch indicates green light OFF, red light ON.
SAT _____ UNSAT _____ (UNSAT requires comments)		

STEP	ELEMENT	STANDARD
27. *	Direct a Nuclear Operator to restore the control power fuse for PBA-S03F, to the ON position.	Examinee directs a Nuclear Operator to place the control power fuse for PBA-S03F to the ON position. NOTE: Simulator driver must input: MRF B205:siap01 IN. After the driver inputs the command then, inform CUE: The control power UC fuse for PBA-S03F is in the ON position. Inform Cue: Another operator will complete the rest of this section.
SAT _____ UNSAT _____ (UNSAT requires comments)		

NORMAL TERMINATION POINT

COMMENTS:



JS-7^L
PVNGS JOB PERFORMANCE MEASURE

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
0	02/19/97	6	New
1	04/25/01	3	

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)



JS-7^L
PVNGS JOB PERFORMANCE MEASURE

INITIAL CONDITIONS

INFORMATION PRESENTED TO EXAMINEE:

SPECIAL CONSIDERATIONS:

- Operation of in-plant equipment is to be **SIMULATED ONLY, DO NOT OPERATE** any equipment.
- Inform the control room staff of any discovered deficiencies.
- You may use any source of information normally available.

INITIATING CUE:

- **A plant heatup is in progress. The CRS directs you to restore Safety Injection train "A" to its normal operating lineup per 40OP-9SI02, Recovery from Shutdown Cooling to Normal Operating Lineup, beginning at step 4.1.11.**
- **Shutdown purification is not aligned to train "A".**
- **A flush of the SDC piping has already been performed.**
- **All prerequisites are complete.**

SAFETY CONSIDERATIONS:

- None