

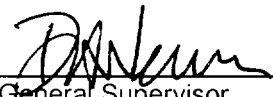
Constellation Energy Group  
OPERATOR JOB PERFORMANCE MEASURE

Title: Downshift Reactor Recirculation Pumps

Revision: NRC 2005

Task Number: 2029150101

Approvals:

 3/14/05  
General Supervisor Date  
Operations Training (Designee)

NA EXAMINATION SECURITY  
General Supervisor Date  
Operations (Designee)

NA EXAMINATION SECURITY  
Configuration Control Date

Performer: \_\_\_\_\_ (RO/SRO)

Trainer/Evaluator: \_\_\_\_\_

Evaluation Method:  Perform  Simulate

Evaluation Location:  Plant  Simulator

Expected Completion Time: 20 minutes Time Critical Task: NO Alternate Path Task: NO

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Completion Time: \_\_\_\_\_

JPM Overall Rating: Pass Fail

NOTE: A JPM overall rating of fail shall be given if any critical step is graded as fail. Any grade of unsat or individual competency area unsat requires a comment.

Comments:

Evaluator Signature: \_\_\_\_\_

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

Recommended Start Location:

Simulator

Simulator Set-up:

Reset to IC-44

Directions to Operators:

Read Before Every JPM Performance:

For the performance of this JPM, I will function as the SM, CSO, and Auxiliary Operators. Prior to providing direction to perform this task, I will provide you with the initial conditions and answer any questions. During task performance, I will identify the steps to be simulated, or discuss and provide cues as necessary.

Read Before Each Evaluated JPM Performance:

This evaluated JPM is a measure of your ability to perform this task independently. The Control Room Supervisor has determined that a verifier is not available and that additional / concurrent verification will not be provided; therefore it should not be requested.

Read Before Each Training JPM Performance:

During this Training JPM, applicable methods of verification are expected to be used. Therefore, either another individual or I will act as the additional / concurrent verifier.

Notes to Instructor / Evaluator:

1. Critical steps are identified as **Pass/Fail**. All steps are sequenced critical unless denoted by a "•".
2. During Evaluated JPM:
  - Self-verification shall be demonstrated.
3. During Training JPM:
  - Self-verification shall be demonstrated.
  - No other verification shall be demonstrated.

References:

1. N2-OP-29 G.1.0
2. NUREG K/A 202001 A4.01 3.7/3.7

Tools and Equipment:

1. None

Task Standard:

Recirculation pumps 1A and 1B running in slow speed with their flow control valves full open.

Initial Conditions:

1. The plant is at 41% power.
2. The Rod line is at 60%.
3. Hydrogen injection has been secured.
4. Evaluator to ask the operator for any questions.

Initiating cue:

**RO** - "(Operator's name), "Transfer Recirc Pumps from high speed to low speed per N2-OP-29 section G.1.0."

**SRO** - "(Operator's name), "Transfer Recirc Pumps from high speed to low speed."

<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
1. Provide repeat back of initiating cue. <i>Evaluator Acknowledge repeat back providing correction if necessary</i>	<input type="checkbox"/> Proper communications used for repeat back (GAP-OPS-01)	Sat/Unsat

**RECORD START TIME \_\_\_\_\_**

2. Obtain a copy of the reference procedure and review/utilize the correct section.	<input type="checkbox"/> N2-OP-29 obtained. Precautions & Limitations reviewed and section G.1.0 referenced	Sat/Unsat
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3. Verify the following: <input type="checkbox"/> BRKR 1A/B control switches in NORMAL.	<input type="checkbox"/> Observes BRKR 1A and 1B control switches in NORMAL	Sat/Unsat
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<input type="checkbox"/> BRKR 2A/B are open AND control switches in NORMAL.	<input type="checkbox"/> Observes BRKR 2A and 2B control switches in NORMAL	Sat/Unsat
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<input type="checkbox"/> Observes BRKR 2A/2B green lights – ON	Sat/Unsat
<input type="checkbox"/> Observes BRKR 2A/2B red lights – OFF	Sat/Unsat

<input type="checkbox"/> LFMG generator AND pump motor lockout AND relays are reset at RECIRCULATION SYSTEM LFMG SET AUXILIARY RELAY PANEL B35-P001A(B).	<b>Cue: When asked, report that LFMG generator &amp; pump motor lockout and relays are reset</b>
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4. At 2NPS-SWG004 (SWG005), confirm breaker 1, REACTOR RECIRCULATION PUMP MOTOR BRKR – 2A(B) 2RCS-M1A(B) is charged as indicated by yellow indicator on lower left of breaker.	<b>Cue: Acknowledge request and report that breaker 1 on both NPS-SWG004 and 005 are charged.</b>
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5. Position AND hold BRKR 5A(B) control switch to TRANSFER MG, THEN position the remaining BRKR 5B(A) control switch to TRANSFER MG	<input type="checkbox"/> Rotates BRKR 5A control switch – TRANSFER MG	<b>Pass/Fail</b>
	<input type="checkbox"/> Rotates BRKR 5B control switch – TRANSFER MG	<b>Pass/Fail</b>

The following annunciators alarm not requiring action:  
 603139 "Reactor Water Level High" (in/clear)

Performance Steps	Standard	Grade
	<input type="checkbox"/> 603218 "OPRM Trip Enabled" (clears) <input type="checkbox"/> 842310 "HWC Trouble" (reflashes) <input type="checkbox"/> 851456 "Cnst System Trouble No Backup Pmp Available (in/clear)	
6. Observe the following:		
<input type="checkbox"/> BRKR 5A trips.	<input type="checkbox"/> Observes BRKR 5A red light – OFF <input checked="" type="checkbox"/> Observes BRKR 5A green light – ON	Sat/Unsat Sat/Unsat
<input type="checkbox"/> BRKR 5B trips.	<input type="checkbox"/> Observes BRKR 5B red light – OFF <input type="checkbox"/> Observes BRKR 5B green light – ON	Sat/Unsat Sat/Unsat
<input type="checkbox"/> BRKR 1A AND BRKR 1B close.	<input type="checkbox"/> Observes BRKR 1A red light – ON <input checked="" type="checkbox"/> Observes BRKR 1A green light – OFF <input checked="" type="checkbox"/> Observes BRKR 1B red light – ON <input type="checkbox"/> Observes BRKR 1B green light – OFF	Sat/Unsat Sat/Unsat Sat/Unsat Sat/Unsat
<input type="checkbox"/> Pump speed lowers to between 460 AND 350 rpm.	<input checked="" type="checkbox"/> Observes speed on B35-651A and B drop <460 but >350 rpm	Sat/Unsat
<input type="checkbox"/> BRKR 2A AND BRKR 2B close.	<input checked="" type="checkbox"/> Observes BRKR 2A red light – ON <input type="checkbox"/> Observes BRKR 2A green light – OFF <input type="checkbox"/> Observes BRKR 2A red light – ON <input type="checkbox"/> Observes BRKR 2A green light – OFF	Sat/Unsat Sat/Unsat Sat/Unsat Sat/Unsat
<input type="checkbox"/> Pump speed stabilizes at about 445 rpm.	<input type="checkbox"/> Observes speed on B35-651A and B at about 445 rpm	Sat/Unsat
7. Using RECIRC LOOP A <b>AND</b> B FLOW CONTROL stations, raise output signal to 100% (about 85 on A loop % VALVE POSITION indicated).	<input type="checkbox"/> Positions RECIRC LOOP A and B FLOW CONTROL to raise. <input type="checkbox"/> Observe loop A VALVE POSITION at about 85% <input type="checkbox"/> Observe loop B VALVE POSTION at about 95%	Pass/Fail Sat/Unsat Sat/Unsat
	The following annunciators alarm not requiring action: <input type="checkbox"/> 603218 "OPRM Trip Enabled" alarms	
8. Monitors recirculation pump and LFMG parameters.	<input type="checkbox"/> Observe about 73 amps on AM-2RCSA(B)60 <input type="checkbox"/> Observe 445 rpm on B35-R651A(B). <input checked="" type="checkbox"/> Dispatches an Auxiliary Operator to report LFMG generator voltage and amperage.	Sat/Unsat Sat/Unsat Sat/Unsat
	<p><b>Cue: As the Auxiliary Operator, report that LFMG 'A' generator indicates 1250 volts and 95 amps. Also, LFMG 'B' generator indicates 1250 volts and 94 amps.</b></p>	

<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
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9. Reports that Recirc pumps have been transferred to slow speed.

**Cue: Acknowledges the report.**

**TERMINATING CUE:** Recirc pumps 1A and 1B running in slow speed.

**RECORD STOP TIME** \_\_\_\_\_

Initial Conditions:

1. The plant is at 41% power.
2. The Rod line is at 60%.
3. Hydrogen injection has been secured.
4. Evaluator to ask the operator for any questions.

Initiating cue:

**RO** - "(Operator's name), "Transfer Recirc Pumps from high speed to low speed per N2-OP-29 section G.1.0."

**Candidate:**     *Direct ALL communications and announcements through the JPM Evaluator, first.*

Initial Conditions:

1. The plant is at 41% power.
2. The Rod line is at 60%.
3. Hydrogen injection has been secured.
4. Evaluator to ask the operator for any questions.

Initiating cue:

**SRO** - "(Operator's name), "Transfer Recirc Pumps from high speed to low speed."

**Candidate:**     *Direct ALL communications and announcements through the JPM Evaluator, first.*

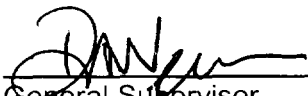
Constellation Energy Group  
OPERATOR JOB PERFORMANCE MEASURE

Title: RCIC Injection With Oscillations (Faulted)

Revision: NRC 2005

Task Number: 2179150101

Approvals:

  
\_\_\_\_\_  
General Supervisor  
Operations Training (Designee)

3/14/05  
\_\_\_\_\_  
Date

\_\_\_\_\_  
NA EXAMINATION SECURITY  
General Supervisor  
Operations (Designee)

\_\_\_\_\_  
NA EXAMINATION SECURITY  
Configuration Control  
\_\_\_\_\_  
Date

Performer: \_\_\_\_\_(RO/SRO)

Trainer/Evaluator: \_\_\_\_\_

Evaluation Method:  Perform  Simulate

Evaluation Location:  Plant  Simulator

Expected Completion Time: 15 min. Time Critical Task: No Alternate Path Task: Yes

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Completion Time: \_\_\_\_\_

JPM Overall Rating: Pass Fail

NOTE: A JPM overall rating of fail shall be given if any critical step is graded as fail. Any grade of unsat or individual competency area unsat requires a comment.

Comments:

Evaluator's Signature: \_\_\_\_\_

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



Recommended Start Location:

Simulator

Simulator Set-up:

1. Reset to any hot IC
2. RPV pressure >300 psig
3. Malfunction RC04, TRUE, Event Trigger 049 [Relatives]  
FALSE, Event Trigger 050
4. Reactor in MODE 3 with Main Turbine off-line, or RCIC-Turbine trip bypassed.

Directions to Operators:

Read Before Every JPM Performance:

For the performance of this JPM, I will function as the SSS, CSO, and Auxiliary Operators. Prior to providing direction to perform this task, I will provide you with the initial conditions and answer any questions. During task performance, I will identify the steps to be simulated, or discuss and provide cues as necessary.

With the exception of accessing panels, NO plant equipment will be physically manipulated. Repositioning of devices will be simulated by discussion and acknowledged by my cues.

Read Before Each Evaluated JPM Performance:

This evaluated JPM is a measure of your ability to perform this task independently. The Control Room Supervisor has determined that a verifier is not available and that additional / concurrent verification will not be provided; therefore, it should not be requested.

Read Before Each Training JPM Performance:

During this Training JPM, applicable methods of verification are expected to be used. Therefore, either another individual or I will act as the independent/peer verifier.

Notes to Instructor / Evaluator:

1. Critical steps are identified in grading areas as **Pass/Fail**. All steps are sequenced critical unless denoted by a "•".
2. During Evaluated JPM:
  - Self-verification shall be demonstrated.
3. During Training JPM:
  - Self-verification shall be demonstrated.
  - Additional verification shall be demonstrated.

References:

1. N2-OP-35, Section F.2.0
2. NUREG K/A 217000 A4.01 3.7/3.7

Tools and Equipment:

None

Task Standard:

RCIC Flow Controller in manual and with RCIC injecting to RPV at approximately 600 gpm.

Initial Conditions:

1. Reactor pressure is (report digital pressure reading on P603)
2. RPV level is lowering.

Initiating Cues:

"(Operator's name), initiate RCIC, inject into the RPV and establish rated flow, per N2-OP-35, Section F.2.0."

Performance Steps	Standard	Grade
1. Provide repeat back of initiating cue. <i>Evaluator Acknowledge repeat back providing correction if necessary.</i>	Proper communications used for repeat back (GAP-OPS-O1)	Sat/Unsat

**RECORD START TIME \_\_\_\_\_**

2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	N2-OP-35 obtained. Precautions & limitations reviewed and Section F.2.0 referenced.	Sat/Unsat
3. Initiate RCIC.	At P601, rotate RCIC manual initiation pushbutton collar to armed position.	<b>Pass/Fail</b>
	Depress RCIC manual initiation pushbutton.	<b>Pass/Fail</b>
4. Verify RCIC System response.	Verifies <b>RCIC</b> has started properly by verifying the following:	
	• Gland Seal System Air Compressor <b>STARTS.</b>	Sat/Unsat
	• ICS*MOV116, Lube Oil Cooling Water Supply, <b>OPENS.</b>	Sat/Unsat
	• ICS*MOV120, Turbine Steam Supply Valve, <b>OPENS.</b>	Sat/Unsat
	• ICS*MOV126, RCIC Pump discharge to the Reactor, <b>OPENS.</b>	Sat/Unsat
	• ICS*MOV143, RCIC Pump minimum flow to the Suppression Pool. <b>OPENS</b> and then <b>CLOSES</b> once discharge flow is greater than 220 gpm.	Sat/Unsat
• ICS*AOV 156 and 157, RCIC Injection Outboard and Inboard Isolation Valves, <b>OPEN</b> once System Pressure is greater than		Sat/Unsat

Reactor Pressure.

5. Observe and respond to failure of the RCIC System flow controller in "AUTO".	<ul style="list-style-type: none"> <li>Recognizes as RCIC Flow is increasing that the flow to the Reactor Vessel is <b>OSCILLATING</b>.</li> <li>Places ICS*FC101, RCIC Flow Controller in "MANUAL" and <b>ESTABLISHES</b> approximately 600 gpm flow rate.</li> </ul>	<p><b>Pass/Fail</b></p> <p><b>Pass/Fail</b></p>
6. Reports to the SM; <ul style="list-style-type: none"> <li>RCIC is injecting to the Reactor Vessel at 600 gpm in the <b>MANUAL</b> mode.</li> </ul>	<p><b>CUE: As the SM, respond to the Candidates report on the RCIC System.</b></p>	<p>Sat/Unsat</p>
<ul style="list-style-type: none"> <li>The Flow Controller, 2ICS*FC101, <b>IS NOT</b> in the <b>AUTOMATIC</b> mode due to flow oscillations during startup of the RCIC System.</li> </ul>	<p><b>CUE: As the SM, respond to the Candidates report on the RCIC System.</b></p>	<p>Sat/Unsat</p>
<ul style="list-style-type: none"> <li>Current Reactor Vessel Level.</li> </ul>	<p><b>CUE: If asked, tell the Candidate that RCIC flow is still required, and to monitor the RCIC System for any further signs of malfunctions.</b></p>	

**Terminating Cue: The RCIC System is injecting in the manual mode at rated flow conditions.**

**RECORD STOP TIME \_\_\_\_\_**

Initial Conditions:

1. Reactor pressure is (report digital pressure reading on P603)
2. RPV level is lowering.

Initiating Cues:

"(Operator's name), initiate RCIC per N2-OP-35, Section F.2.0, inject into the RPV and establish rated flow."

***Candidate:***                    ***Direct ALL communications and announcements through the JPM Evaluator, first.***

Constellation Energy Group  
OPERATOR JOB PERFORMANCE MEASURE

Title: Restart RHS in S/D Cooling Mode (Alternate)  
Task Number: 2050030101

Revision: NRC 2005

Approvals:

JAN 3/14/05  
General Supervisor Date  
Operations Training (Designee)

NA EXAMINATION SECURITY  
General Supervisor Date  
Operations (Designee)

NA EXAMINATION SECURITY  
Configuration Control Date

Performer: \_\_\_\_\_ (RO/SRO)

Trainer/Evaluator: \_\_\_\_\_

Evaluation Method:  Perform  Simulate

Evaluation Location:  Plant  Simulator

Expected Completion Time: 10 Mins. Time Critical Task: NO Alternate Path Task: YES

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Completion Time: \_\_\_\_\_

JPM Overall Rating: Pass Fail

**NOTE:** A JPM overall rating of fail shall be given if any critical step is graded as fail. Any grade of unsat or individual competency area unsat requires a comment.

Comments:

Evaluator's Signature: \_\_\_\_\_

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

Recommended Start Location:

Unit 2 Simulator

Simulator Set-up:

1. Place Simulator in IC-24 Shut Down Cooling
2. Shutdown the 'B' RHS Loop per N2-OP-31, Section H.3.0
3. Set up the following I/O and Event Trigger: - (P14/35), ET#51.
  - a. I/O 2RHS\*MOV40B control switch (Page 14/36) in 'Neutral' and trigger (ET-51) with the red open indication for 2RHS\*MOV40B.  
(P601-B22H-S44-A, RHR Shutdown Cooling Injection Isol Vlv MOV 40B, NEUTRAL ET01)

Directions to Operators:

Read Before Every JPM Performance:

For the performance of this JPM, I will function as the SM, CSO, and Auxiliary Operators. Prior to providing direction to perform this task, I will provide you with the initial conditions and answer any questions. During task performance, I will identify the steps to be simulated, or discuss and provide cues as necessary.

Read Before Each Evaluated JPM Performance:

This evaluated JPM is a measure of your ability to perform this task independently. The Control Room Supervisor has determined that a verifier is not available and that additional / concurrent verification will not be provided; therefore, it should not be requested.

Read Before Each Training JPM Performance:

During this Training JPM, applicable methods of verification are expected to be used. Therefore, either another individual or I will act as the independent/peer verifier.

Notes to Instructor / Evaluator:

1. Critical steps are identified in grading areas as **Pass/Fail**. All steps are sequenced critical unless denoted by a "•".
2. During Evaluated JPM:
  - Self-verification shall be demonstrated.
3. During Training JPM:
  - Self-verification shall be demonstrated.
  - Additional verification shall be demonstrated.

References:

1. N2-OP-31, Section H.3.0 and H.4.0
2. N2-ARP-01, Attachment 6, ARP for window 601648
3. NUREG 1123, 205000 A4.01 3.7/3.7 Shutdown Cooling System (RHR Shutdown Cooling Mode)

Tools and Equipment:

None required

Task Standard: RHS\*P1B tripped within 40 seconds of start

Initial Conditions:

1. Plant is in mode 4.
2. SDC Loop 'B' has been shut down per N2-OP-31, section H.3.0.
3. SDC Loop 'B' has been shut down for 15 minutes.
4. RDS Back fill is in service.
5. Instructor to ask operator for any questions.

Initiating Cues:

**RO-** "(Operator's name), Restart RHS Loop 'B' in Shut Down Cooling per N2-OP-31."

**SRO-** "(Operator's name), Restart RHS Loop 'B' in Shut Down Cooling."

<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
1. Provide repeat back of initiating cue. <i>Evaluator Acknowledge repeat back providing correction if necessary.</i>	<input type="checkbox"/> Proper communications used for repeat back (GAP-OPS-01/Operations Manual).	Sat/Unsat

**RECORD START TIME \_\_\_\_\_**

2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	<input type="checkbox"/> N2-OP-31 obtained. Precautions & limitations reviewed & section H.4.0 referenced.	Sat/Unsat
3. IF RDS Backfill Injection is out of service to one OR more RPV Level reference Legs in Mode 3, THEN perform the following: a. Enter N2-OP-101C, Attachment 1. b. Perform concurrently with this Subsection to monitor for possible RPV level instrumentation notching. c. IF observed, take the proper actions.	<input type="checkbox"/> Determines that RDS backfill is in service and no action is required,	Sat/Unsat
4. CAUTION: The RHR pump is without minimum flow protection, Minimum flow of > 1000 gpm must be established within 40 seconds of pump start. Use of a stopwatch is recommended to ensure the pump is tripped within the required time if minimum flow is not achieved. Do not allow pump to run for > 15 seconds deadheaded.	<input type="checkbox"/> Obtains stopwatch.	Sat/Unsat
5. Start 2RHS*P1B at Panel 601.	<input type="checkbox"/> Rotates RHS*P1B control switch to start and releases to Normal-After-Start.	Pass/Fail



<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
	<input type="checkbox"/> Starts the stopwatch <input type="checkbox"/> Observes control switch red flagged. <input type="checkbox"/> Observes RHS*P1B red light – ON <input type="checkbox"/> Observes RHS*P1B green light – OFF	Sat/Unsat Sat/Unsat Sat/Unsat Sat/Unsat
6. Throttle open RHS*MOV40B, SDC B RETURN THROTTLE to > 1000 gpm.	<input type="checkbox"/> Places RHS*MOV40B control switch to OPEN (requires key). <input type="checkbox"/> Observes RHS*MOV40B red light – ON <input type="checkbox"/> Observes RHS*MOV40B green light – ON	<b>Pass/Fail</b> Sat/Unsat Sat/Unsat
7. IF RHS*MOV40B does not begin to open in 15 seconds OR system flow is NOT > 1000 gpm 40 seconds after pump start. Place RHS*P1B control switch to STOP, THEN release to Normal-After-Stop.	<input type="checkbox"/> Observes no rising flow indication on meter E12-R603B <input type="checkbox"/> Prior to 40 seconds after RHS*P1B is started, places RHS*P1B control switch to STOP and releases to Normal-After-Stop.	Sat/Unsat <b>Pass/Fail</b>
8. Report to CRS inability to obtain required minimum flow on RHS*P1B and that the pump has been tripped.	<input type="checkbox"/> Report made to CRS of inability to obtain satisfactory min-flow and that RHS*P1B has been tripped.	Sat/Unsat

**Cue: As the CRS, Acknowledge the report.**

**Terminating Cue: RHS\*P1B tripped within 40 seconds of start.**

**RECORD STOP TIME \_\_\_\_\_**

Initial Conditions:

1. Plant is in mode 4.
2. SDC Loop 'B' has been shut down per N2-OP-31, section H.3.0.
3. SDC Loop 'B' has been shut down for 15 minutes.
4. RDS Back fill is in service.
5. Instructor to ask operator for any questions.

Initiating Cues:

**RO-** "(Operator's name), Restart RHS Loop 'B' in Shut Down Cooling per N2-OP-31."

**Candidate:**     *Direct ALL communications and announcements through the JPM Evaluator, first.*

Initial Conditions:

1. Plant is in mode 4.
2. SDC Loop 'B' has been shut down per N2-OP-31, section H.3.0.
3. SDC Loop 'B' has been shut down for 15 minutes.
4. RDS Back fill is in service.
5. Instructor to ask operator for any questions.

Initiating Cues:

**SRO-** "(Operator's name), Restart RHS Loop 'B' in Shut Down Cooling."

**Candidate:**     *Direct ALL communications and announcements through the JPM Evaluator, first.*

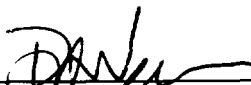
Constellation Energy Group  
OPERATOR JOB PERFORMANCE MEASURE

Title: Initiate Containment Venting Through  
Standby Gas Treatment (GTS)

Revision: NRC 2005

Task Number: 2000070501

Approvals:

 3/16/05  
General Supervisor Date  
Operations Training (Designee)

NA EXAMINATION SECURITY  
General Supervisor Date  
Operations (Designee)

NA EXAMINATION SECURITY  
Configuration Control Date

Performer: \_\_\_\_\_(RO/SRO)

Trainer/Evaluator: \_\_\_\_\_

Evaluation Method:  Perform  Simulate

Evaluation Location:  Plant  Simulator

Expected Completion Time: 15 minutes Time Critical Task: NO Alternate  
Path Task: NO

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Completion Time: \_\_\_\_\_

JPM Overall Rating: Pass Fail

NOTE: A JPM overall rating of fail shall be given if any critical step is graded as fail. Any grade of unsat or individual competency area unsat requires a comment.

Comments:

Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Recommended Start Location:

Simulator

Simulator Set-up:

This JPM can be run from any IC. No setup is required.

Directions to Operators:

Read Before Every JPM Performance:

For the performance of this JPM, I will function as the SM, CSO, and Auxiliary Operators. Prior to providing direction to perform this task, I will provide you with the initial conditions and answer any questions. During task performance, I will identify the steps to be simulated, or discuss and provide cues as necessary.

Read Before Each Evaluated JPM Performance:

This evaluated JPM is a measure of your ability to perform this task independently. The Control Room Supervisor has determined that a verifier is not available and that additional / concurrent verification will not be provided; therefore it should not be requested.

Read Before Each Training JPM Performance:

During this Training JPM, applicable methods of verification are expected to be used. Therefore, either another individual or I will act as the additional / concurrent verifier.

Notes to Instructor / Evaluator:

1. Critical steps are identified as **Pass/Fail**. All steps are sequenced critical unless denoted by a "•".
2. During Evaluated JPM:
  - Self-verification shall be demonstrated.
3. During Training JPM:
  - Self-verification shall be demonstrated.
  - No other verification shall be demonstrated.

References:

1. N2-OP-61A, "Primary Containment Ventilation Purge & Nitrogen System", Section H.1.0
2. NUREG K/A: 295024, EA1.20 3.5 / 3.6

Tools and Equipment:

None required

Task Standard:

SBGTS Train "A" running, aligned to the Drywell in accordance with applicable procedures.

Initial Conditions:

1. EOPs have been entered due to high suppression pool temperature.
2. Conditions require standby gas be placed on the drywell to reduce pressure.
3. Drywell and Suppression Chamber vent samples have been obtained and are satisfactory.
4. There is no Nitrogen makeup to the Primary Containment in progress.
5. Instructor to ask operator for any questions.

Initiating Cues:

**RO-** "(Operator's name), place Standby Gas Train "A" on the Drywell per N2-OP-61A, Section H.1.0."

**SRO-** "(Operator's name), place Standby Gas Train "A" on the Drywell."

<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
1. Provide repeat back of initiating cue. <i>Evaluator Acknowledge repeat back providing correction if necessary.</i>	<input type="checkbox"/> Proper communications used for repeat back (GAP-OPS-O1)	Sat/Unsat

**RECORD START TIME \_\_\_\_\_**

2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	<input type="checkbox"/> N2-OP-61A obtained. Precautions & Limitations reviewed & section H.1.0 referenced.	Sat/Unsat
3. IF required, as determined by Chemistry Supervision, notify Chemistry to sample the containment for the prevent acceptance criteria of ODCM Table D3.2.1-1 per Precaution and Limitation D.13.0 guidance:	<input type="checkbox"/> Determines that Chemistry samples have been obtained and analysis is completed	
4. IF time permits, concurrently with the following steps, fill out Attachment 3 for the valves operated (ODCM DSR 3.2.6.1). The listed position shall be the position of the valve following completion of the step.	<input type="checkbox"/> Cue operator that time does not permit the filling out of attachment 3.	
5. IF desired to reduce Drywell or Suppression Chamber pressure, open the following:		
<input type="checkbox"/> IAS*SOV168 at 2CEC*PNL851.	<input type="checkbox"/> Places IAS*SOV168 control switch clockwise to OPEN.	<b>Pass/Fail</b>
	<input type="checkbox"/> Observes IAS*SOV168 red light – ON	Sat/Unsat
	<input type="checkbox"/> Observes IAS*SOV168 green light - OFF	Sat/Unsat
<input type="checkbox"/> IAS*SOV180 at 2CEC*PNL851.	<input type="checkbox"/> Places IAS*SOV180 control switch clockwise to OPEN	<b>Pass/Fail</b>
	<input type="checkbox"/> Observes IAS*SOV180 red light – ON	Sat/Unsat
	<input type="checkbox"/> Observes IAS*SOV180 green light – OFF	Sat/Unsat

Performance Steps	Standard	Grade
6. Start at least one of the GTS trains by placing TRAIN A (B) INITIATION Control Switch to START position at 2CEC*PNL870 (871) AND verify the following:	<input type="checkbox"/> rotates the "Train A Initiation" switch clockwise to the start position <input type="checkbox"/> Observes Train A Initiation red light – ON <input type="checkbox"/> Observes Train A Initiation green light – OFF	<b>Pass/Fail</b> Sat/Unsat Sat/Unsat
<input type="checkbox"/> GTS*MOV1A (B), INLET FROM RX BLDG VENTILATION - Opens.	<input type="checkbox"/> Observes GTS*MOV1A red light – ON <input type="checkbox"/> Observes GTS*MOV1A green light – OFF	Sat/Unsat Sat/Unsat
<input type="checkbox"/> GTS*AOV2A (B), TRAIN A (B) INLET VLV - Opens.	<input type="checkbox"/> Observes GTS*MOV2A red light – ON <input type="checkbox"/> Observes GTS*MOV2A green light – OFF	Sat/Unsat Sat/Unsat
<input type="checkbox"/> GTS*AOV3A (B), FAN 1A (B) DISCH ISOL VLV - Opens.	<input type="checkbox"/> Observes GTS*MOV3A red light – ON <input type="checkbox"/> Observes GTS*MOV3A green light – OFF	Sat/Unsat Sat/Unsat
<input type="checkbox"/> GTS*FN1A (B), SBGTS FAN - Starts.	<input type="checkbox"/> Observes GTS*FN1A red light – ON <input type="checkbox"/> Observes GTS*FN1A green light – OFF	Sat/Unsat Sat/Unsat
7. Verify that Chemistry is standing by to <u>start</u> the sampling required <u>during</u> the vent (ODCM Table D3.2.1-1).	<input type="checkbox"/> Requests Chemistry Technician commence sampling	Sat/Unsat
<b><i>Cue: If requested, inform Operator that Chemistry has started sampling during the vent.</i></b>		
8. IF GTS operation is affecting Reactor Building differential pressure, adjust controller 2GTS*PDIK5A (B), REACTOR BLDG INLET/OUTLET DIFF PRESS, to throttle 2GTS*PV5A (B), RX BLDG PRESSURE CONTROL as necessary.	<input type="checkbox"/> Verify Reactor Building pressure $\leq$ -.6" WG on GTS*PDIK5A. <input type="checkbox"/> If necessary, throttle pressure valve 2GTS*PDIK5A as necessary to maintain $\leq$ -.6" WG Reactor Building pressure.	Sat/Unsat <b>Pass/Fail</b>
9. At CEC*PNL873, verify the following valves closed:		
<input type="checkbox"/> CPS*AOV104	<input type="checkbox"/> Observe CPS*AOV104 green light – ON	Sat/Unsat Sat/Unsat
<input type="checkbox"/> CPS*AOV105	<input type="checkbox"/> Observe CPS*AOV104 red light – OFF	Sat/Unsat Sat/Unsat
<input type="checkbox"/> CPS*AOV110	<input type="checkbox"/> Observe CPS*AOV105 green light – ON <input type="checkbox"/> Observe CPS*AOV105 red light – OFF	Sat/Unsat Sat/Unsat Sat/Unsat
<input type="checkbox"/> CPS*AOV111	<input type="checkbox"/> Observe CPS*AOV110 green light – ON	Sat/Unsat Sat/Unsat
<input type="checkbox"/> GTS*SOV102	<input type="checkbox"/> Observe CPS*AOV110 red light – OFF	Sat/Unsat Sat/Unsat
<input type="checkbox"/> GTS*AOV101	<input type="checkbox"/> Observe CPS*AOV111 green light – ON <input type="checkbox"/> Observe CPS*AOV111 red light –	Sat/Unsat Sat/Unsat

Performance Steps	Standard	Grade
	OFF	
	<input type="checkbox"/> Observe CPS*AOV102 green light – ON <input type="checkbox"/> Observe CPS*AOV102 red light – OFF  <input type="checkbox"/> Observe CPS*AOV101 green light – ON <input type="checkbox"/> Observe CPS*AOV101 red light – OFF	
10. At CEC*PNL875, verify the following valves closed:		
<input type="checkbox"/> CPS*AOV106	<input type="checkbox"/> Observe CPS*AOV106 green light – ON <input type="checkbox"/> Observe CPS*AOV106 red light – OFF	Sat/Unsat Sat/Unsat
<input type="checkbox"/> CPS*SOV132/AOV107	<input type="checkbox"/> Observe CPS*SOV132/AOV107 green light – ON <input type="checkbox"/> Observe CPS*SOV132/AOV107 red light – OFF	Sat/Unsat Sat/Unsat
<input type="checkbox"/> CPS*AOV108	<input type="checkbox"/> Observe CPS*AOV108 green light – ON <input type="checkbox"/> Observe CPS*AOV108 red light – OFF	Sat/Unsat Sat/Unsat
<input type="checkbox"/> CPS*SOV133/AOV109	<input type="checkbox"/> Observe CPS*SOV133/AOV109 green light – ON <input type="checkbox"/> Observe CPS*SOV133/AOV109 red light – OFF	Sat/Unsat Sat/Unsat
11. Notify Chemistry to start ODCM required sampling.	<b>Cue: If requested, inform Operator that Chemistry has started sampling during the vent.</b>	
12. At CEC*PNL873, open 2GTS*SOV102.	<input type="checkbox"/> Rotates 2GTS*SOV102 control switch clockwise to – OPEN <input type="checkbox"/> Observe 2GTS*SOV102 red light – ON <input type="checkbox"/> Observe 2GTS*SOV102 green light – OFF	Pass/Fail Sat/Unsat Sat/Unsat
13. At CEC*PNL873/875, open the following:		
<input type="checkbox"/> CPS*AOV108	<input type="checkbox"/> Rotate CPS*AOV108 control switch clockwise to OPEN <input type="checkbox"/> Observe CPS*AOV108 red light – ON <input type="checkbox"/> Observe CPS*AOV108 green light – OFF	Pass/Fail Sat/Unsat Sat/Unsat
<input type="checkbox"/> CPS*AOV110	<input type="checkbox"/> Rotate CPS*AOV110 control switch clockwise to OPEN	Pass/Fail



Performance Steps	Standard	Grade
	<input type="checkbox"/> Observe CPS*AOV110 red light – ON <input type="checkbox"/> Observe CPS*AOV110 green light – OFF	Sat/Unsat Sat/Unsat

14. Reports that GTS Train A is running on the Drywell. **Cue: Acknowledge the report**

**TERMINATING CUE:** SBGTS Train "A" running on the Drywell.

**RECORD STOP TIME** \_\_\_\_\_

\_\_\_\_\_

Initial Conditions:

1. EOPs have been entered due to high suppression pool temperature.
2. Conditions require standby gas be placed on the drywell to reduce pressure.
3. Drywell and Suppression Chamber vent samples have been obtained and are satisfactory.
4. There is no Nitrogen makeup to the Primary Containment in progress.
5. Instructor to ask operator for any questions.

Initiating Cues:

**RO-** "(Operator's name), place Standby Gas Train "A" on the Drywell per N2-OP-61A, Section H.1.0."

*Candidate: Direct ALL communications and announcements through the JPM Evaluator, first.*

Initial Conditions:

1. EOPs have been entered due to high suppression pool temperature.
2. Conditions require standby gas be placed on the drywell to reduce pressure.
3. Drywell and Suppression Chamber vent samples have been obtained and are satisfactory.
4. There is no Nitrogen makeup to the Primary Containment in progress.
5. Instructor to ask operator for any questions.

Initiating Cues:


**SRO-** "(Operator's name), place Standby Gas Train "A" on the Drywell."

*Candidate: Direct ALL communications and announcements through the JPM Evaluator, first.*

Constellation Energy Group  
OPERATOR JOB PERFORMANCE MEASURE

Title: Energize Reserve Station Transformer 1B and NPS-SWG003. Revision: NRC 2005  
Task Number: 2000350501

Approvals:

 3/14/05  
General Supervisor Date  
Operations Training (Designee)

NA EXAMINATION SECURITY  
General Supervisor Date  
Operations (Designee)

NA EXAMINATION SECURITY  
Configuration Control Date

Performer: \_\_\_\_\_ (RO/SRO)

Trainer/Evaluator: \_\_\_\_\_

Evaluation Method:  Perform  Simulate

Evaluation Location:  Plant  Simulator

Expected Completion Time: 20 minutes Time Critical Task: NO Alternate  
Path Task: NO

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Completion Time: \_\_\_\_\_

JPM Overall Rating: Pass Fail

NOTE: A JPM overall rating of fail shall be given if any critical step is graded as fail. Any grade of unsat or individual competency area unsat requires a comment.

Comments:

Evaluator Signature: \_\_\_\_\_

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

Recommended Start Location:

Simulator

Simulator Set-up:

Reset to IC 46

Directions to Operators:

Read Before Every JPM Performance:

For the performance of this JPM, I will function as the SM, CSO, and Auxiliary Operators. Prior to providing direction to perform this task, I will provide you with the initial conditions and answer any questions. During task performance, I will identify the steps to be simulated, or discuss and provide cues as necessary.

Read Before Each Evaluated JPM Performance:

This evaluated JPM is a measure of your ability to perform this task independently. The Control Room Supervisor has determined that a verifier is not available and that additional / concurrent verification will not be provided; therefore it should not be requested.

Read Before Each Training JPM Performance:

During this Training JPM, applicable methods of verification are expected to be used. Therefore, either another individual or I will act as the additional / concurrent verifier.

Notes to Instructor / Evaluator:

1. Critical steps are identified as **Pass/Fail**. All steps are sequenced critical unless denoted by a "•".
2. During Evaluated JPM:
  - Self-verification shall be demonstrated.
3. During Training JPM:
  - Self-verification shall be demonstrated.
  - No other verification shall be demonstrated.

References:

1. N2-SOP-03

Tools and Equipment:

1. None

Task Standard:

Reserve Transformer 1B energized from Line 6 and NPS-SWG003 and NNS-SWG013 energized from Reserve Transformer 1B.

Initial Conditions:

1. The plant experienced a Loss of Line 6.
2. The plant was manually scrambled.
3. Immediate and Subsequent Actions of N2-SOP-3 are complete.
4. Fault Identification and Isolation per Attachment 1 Section 1.4 are complete.
5. Power has been restored to Line 6 and Power Control has verified its reliability.
6. Ask the operator for any questions.

Initiating cue:

**RO-** “ (Operator's name), Energize Reserve Station Transformer 1B from Line 6, then restore power to

2NPS-SWG003 and NNS-SWG013 per N2-SOP-3 Attachment 1 Section 1.5 Power Restoration.”

**SRO-** “ (Operator's name), Energize Reserve Station Transformer 1B from Line 6, then restore power to

2NPS-SWG003 and NNS-SWG013 per N2-SOP-3.”

<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
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1. Provide repeat back of initiating cue.  
*Evaluator Acknowledge repeat back providing correction if necessary*

- Proper communications used for repeat back (GAP-OPS-O1)

Sat/Unsat

**RECORD START TIME \_\_\_\_\_**

2. Obtain a copy of the reference procedure and review/utilize the correct section.

- N2-SOP-3 obtained. Precautions & Limitations are reviewed and Attachment 1 Section 1.5 referenced.

Sat/Unsat

3. Review Attachment 1 Section 1.5 Power Restoration to determine applicable Attachment to Energize Reserve Transformer 1B

- Per step 1.5.2, determines performance of Attachment 6 is required.

Sat/Unsat

4. At Panel 808 (CB 288'), verify reset 86-2SPRY01 (RES STA SER XFMR 1B PRIM PROT LO RELAY).

- Verifies 86 device is reset

Sat/Unsat

***Cue: If asked, inform the candidate that 86-SPRY01 is reset.***

5. At Panel 809 (CB 288'), verify reset 86-2SPRZ08 (RES STA SER XFMR 1B BU PROT LOCKOUT RELAY).

- Verifies 86 device is reset

Sat/Unsat

***Cue: If asked, inform the candidate that 86-SPRZ08 is reset.***

6. Determine step 6.2 is N/A

- Marks N/A block for step 6.2

Sat/Unsat

7. Determine section 6.3 is applicable

- Carries out the actions of section 6.3

Sat/Unsat

Performance Steps	Standard	Grade
8. Close MDS2 - (115 KV MOD SWITCH 63) LINE 6.	<input type="checkbox"/> Places MDS2 control switch to CLOSE <input type="checkbox"/> Observes MDS2 red light – ON <input type="checkbox"/> Observes MDS2 green light – OFF	<b>Pass/Fail</b> Sat/Unsat Sat/Unsat
9. Close MDS4 - (115 KV CIRCUIT SWITCHER CKT SWITCH 38).	<input type="checkbox"/> Places MDS4 control switch from PULL-TO-LOCK to NORMAL-AFTER-OPEN <input type="checkbox"/> Places MDS4 control switch to CLOSE <input type="checkbox"/> Observes MDS4 red light – ON <input type="checkbox"/> Observes MDS4 green light – OFF The following annunciators clear with no required action: <input type="checkbox"/> 852421 "MOT Operator CKT 2YUC-MDS4" <input type="checkbox"/> 852435 "RES STA SER XFMR 1B Loss of Voltage"	<b>Pass/Fail</b>  <b>Pass/Fail</b> Sat/Unsat Sat/Unsat
10. IF required, place in Normal-After-Trip 2NPS-SWG003-1.	<input type="checkbox"/> Places 3-1 control switch from PULL-TO-LOCK to NORMAL-AFTER-TRIP. <input type="checkbox"/> Observes 3-1 green light – ON	<b>Pass/Fail</b>  Sat/Unsat
11. Return to Attachment 1 Section 1.5.	<input type="checkbox"/> Per step 1.5.8, determines performance of Attachment 7 is required.	Sat/Unsat
12. Step 7.1 Prerequisites	<b><i>Cue: If asked, 7.1.4 lockouts have been verified reset. Step 7.1, Prerequisites, are completed</i></b>	
12. Determines section 7.2 is applicable	<input type="checkbox"/> Carries out the actions of section 7.2	Sat/Unsat
13. Place 3-14 in Pull-to-Lock.	<input checked="" type="checkbox"/> Places 3-14 control switch in PULL-TO-LOCK <input type="checkbox"/> Observes 3-14 green/red lights – OFF The following annunciator clears with no required action: <input checked="" type="checkbox"/> 852560 "13.8KV Bus NPS003 ACB 3-1/14/16 Auto Trip/FTC"	<b>Pass/Fail</b>  Sat/Unsat
14. Place the SYNC switch to ON (SYNCHRONIZE RES STA SVCE XFMR 1B).	<input checked="" type="checkbox"/> Rotates the SYNC switch to ON	<b>Pass/Fail</b>
15. Close 3-1.	<input checked="" type="checkbox"/> Rotates 3-1 control switch to	<b>Pass/Fail</b>

<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
	CLOSE <input type="checkbox"/> Observes 3-1 red light – ON <input type="checkbox"/> Observes 3-1 green light – OFF Numerous annunciators clear. Numerous annunciators alarm. Numerous annunciators reflash. None of these requires action.	Sat/Unsat Sat/Unsat
16. Place the SYNC switch to OFF.	<input type="checkbox"/> Rotates the SYNC switch to OFF	<b>Pass/Fail</b>
17. Close 13-6.	<input type="checkbox"/> Rotates 13-6 control switch from PULL-TO-LOCK to NORMAL-AFTER-TRIP. <input type="checkbox"/> Observes 13-6 green light – ON <input type="checkbox"/> Rotates 13-6 control switch to CLOSE <input type="checkbox"/> Observes 13-6 red light – ON <input type="checkbox"/> Observes 13-6 green light – OFF The following annunciator clears with no required action: <input type="checkbox"/> 852527 "4KV Bus NNS 013 Undervoltage"	<b>Pass/Fail</b>  Sat/Unsat <b>Pass/Fail</b> Sat/Unsat Sat/Unsat
18. Return to Attachment 1 Section 1.5.		
19. Reports that Reserve Station Transformer 1B is energized from Line 6, and 2NPS-SWG003 & NNS-SWG013 are energized from Reserve Station Transformer 1B	<b>Cue: Acknowledge report.</b>	

**TERMINATING CUE:** Reserve Station Transformer 1B Powered from Line 6, and NPS-SWG003 & NPS-SWG013 are energized from Reserve Station Transformer 1B.

**RECORD STOP TIME** \_\_\_\_\_  
 \_\_\_\_\_



Initial Conditions:

1. The plant experienced a Loss of Line 6.
2. The plant was manually scrambled.
3. Immediate and Subsequent Actions of N2-SOP-3 are complete.
4. Fault Identification and Isolation per Attachment 1 Section 1.4 are complete.
5. Power has been restored to Line 6 and Power Control has verified its reliability.
6. Ask the operator for any questions.

Initiating cue:

**RO-** “ (Operator’s name), Energize Reserve Station Transformer 1B from Line 6, then restore power to 2NPS-SWG003 and NNS-SWG013 per N2-SOP-3 Attachment 1 Section 1.5 Power Restoration.”

*Candidate: Direct ALL communications and announcements through the JPM Evaluator, first.*

Initial Conditions:

1. The plant experienced a Loss of Line 6.
2. The plant was manually scrammed.
3. Immediate and Subsequent Actions of N2-SOP-3 are complete.
4. Fault Identification and Isolation per Attachment 1 Section 1.4 are complete.
5. Power has been restored to Line 6 and Power Control has verified its reliability.
6. Ask the operator for any questions.

Initiating cue:

**SRO-** “ (Operator's name), Energize Reserve Station Transformer 1B from Line 6, then restore power to 2NPS-SWG003 and NNS-SWG013 per N2-SOP-3.”

*Candidate: Direct ALL communications and announcements through the JPM Evaluator, first.*

Constellation Energy Group  
OPERATOR JOB PERFORMANCE MEASURE

Title: PERFORM TURBINE CONTROL VALVE (CV1)  
CYCLING SURVEILLANCE

Revision: NRC 2005

Task Number: 2129050201

Approvals:

DANew 3/14/05  
General Supervisor Date  
Operations Training (Designee)

NA EXAMINATION SECURITY  
General Supervisor Date  
Operations (Designee)

NA EXAMINATION SECURITY  
Configuration Control Date

Performer: \_\_\_\_\_ (RO/SRO)

Trainer/Evaluator: \_\_\_\_\_

Evaluation Method:  Perform  Simulate

Evaluation Location:  Plant  Simulator

Expected Completion Time: 15 minutes Time Critical Task: NO Alternate Path Task: YES

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Completion Time: \_\_\_\_\_

JPM Overall Rating: Pass Fail

NOTE: A JPM overall rating of fail shall be given if any critical step is graded as fail. Any grade of unsat or individual competency area unsat requires a comment.

Comments:

Evaluator Signature: \_\_\_\_\_

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

Recommended Start Location:

Simulator

Simulator Set-up:

1. Reset to a full power IC (such as IC-20).
2. Malfunction RP02,TRUE, QUEUED

Directions to Evaluator:

1. Reduce recirc flow to reduce power to 85 % by APRM's
2. Set the MAX COMBINED FLOW LIMITER to 7.50.
3. This JPM will require an instructor to role-play as a second RO. The second RO will hold the test pushbutton, allowing the candidate to verify indications.

Directions to Operators:

Read Before Every JPM Performance:

For the performance of this JPM, I will function as the SM, CSO, and Auxiliary Operators. Prior to providing direction to perform this task, I will provide you with the initial conditions and answer any questions. During task performance, I will identify the steps to be simulated, or discuss and provide cues as necessary.

Read Before Each Evaluated JPM Performance:

This evaluated JPM is a measure of your ability to perform this task independently. The Control Room Supervisor has determined that a verifier is not available and that additional / concurrent verification will not be provided; therefore it should not be requested.

Read Before Each Training JPM Performance:

During this Training JPM, applicable methods of verification are expected to be used. Therefore, either another individual or I will act as the additional / concurrent verifier.

Notes to Instructor / Evaluator:

1. Critical steps are identified as **Pass/Fail**. All steps are sequenced critical unless denoted by a "•".
2. During Evaluated JPM:
  - Self-verification shall be demonstrated.
3. During Training JPM:
  - Self-verification shall be demonstrated.
  - No other verification shall be demonstrated.

References:

1. N2-OSP-RPS-Q001
2. NUREG K/A 212000 A2.03 3.5/3.5

Tools and Equipment:

1. None

Task Standard:

Cycle CV1 results in a RPS failure, then insert a manual trip of RPS A2 logic.

Initial Conditions:

1. The plant is at 85% power.
2. No equipment is out of service.
3. A second RO is available to assist with surveillance performance.
4. Ask the operator for any questions.

Initiating cue:

"(Operator's name), Perform Turbine Control Valve Cycling per N2-OSP-RPS-Q001."

<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
1. Provide repeat back of initiating cue. <i>Evaluator Acknowledge repeat back providing correction if necessary</i>	<input type="checkbox"/> Proper communications used for repeat back (GAP-OPS-O1)	Sat/Unsat
<b>RECORD START TIME _____</b>		
2. Provide candidate with a marked-up working copy of Surveillance Test N2-OSP-RPS-Q001.	<input type="checkbox"/> N2-OSP-RPS-Q001 section 8.0 is referenced	Sat/Unsat
<b>NOTE:</b>		
3. Perform Step 8.1.1 only if Reactor and Turbine power are less than 30%.	<input type="checkbox"/> Determines that step 8.1.1 is N/A - Rx and Turbine power is greater than 30%.	Sat/Unsat
<b>NOTES:</b>		
4. Closing 2MSS-CV1 may cause bypass valve(s) to open to maintain pressure.  Closing 2MSS-CV1 will cause the following annunciators to alarm: <input type="checkbox"/> 603104 RPS A TURB CONT VLV FAST CLOSE TRIP <input type="checkbox"/> 603110 RPS A AUTO TRIP	<input type="checkbox"/> Informs CRS and/or CSO of expected annunciators  <b>Cue: As the CRS/CSO acknowledge the annunciator report.</b>	Sat/Unsat
5. Verify no trip signals exist in RPS B Trip System.	<input type="checkbox"/> Observes no red annunciators lit on panel 603	Sat/Unsat
6. Notify CSO of trip to be received in RPS A Trip System.	<input type="checkbox"/> Notifies the CSO of expected half scram initiation in RPS A Trip System.  <b>Cue: Acknowledge that a half scram will be received.</b>	Sat/Unsat
7. Depress and HOLD, CV-1 TEST pushbutton, (hold depressed until directed to release), when position indicator indicates valve is fully closed (0% indicated), verify following alarms and indications:	<input type="checkbox"/> Depresses the CV-1 TEST pushbutton on panel 2CEC*PNL842  <b>Cue: Instructor role play to hold the TEST pushbutton allowing the candidate to verify indications.</b>	Pass/Fail

Performance Steps	Standard	Grade
<input type="checkbox"/> Annunciator 603104 RPS A TURB CONT VLV FAST CLOSE TRIP alarmed.	<input type="checkbox"/> Observes 603104 annunciator window is lit.	Sat/Unsat
<input type="checkbox"/> Annunciator 603110 RPS A AUTO TRIP alarmed.	<input type="checkbox"/> Observes 603110 annunciator window is <b><u>extinguished.</u></b>	Sat/Unsat
<input checked="" type="checkbox"/> PILOT SCRAM VALVE SOLENOIDS A,C,E,G indicating lights on 2CEC*PNL603 are OFF.	<input type="checkbox"/> Observes Pilot SCRAM valve solenoids white lights A, C, E & G – <b><u>ON</u></b>	Sat/Unsat
<input type="checkbox"/> REACTOR SCRAM TRIP LOGIC A2 indicating light on 2CEC*PNL609 is OFF.	<b><i>Cue: If asked, state that the Reactor SCRAM Trip Logic A2 white light Located on P609 is ON</i></b>	Sat/Unsat
<input type="checkbox"/> RECIRC PUMP TRIP SYSTEM B indicating light C72A-DS13 on 2CEC*PNL609 is OFF, C72A-DS15 on 2CEC*PNL611 becomes brighter.	<b><i>Cue: If asked, state that the Recirc Pump Trip System B light C72A-DS13 on P609 is OFF and C72A-DS15 on P611 is BRIGHTER.</i></b>	Sat/Unsat
<input type="checkbox"/> Process points MSSUC10 and RPSUC03 are generated.	<input type="checkbox"/> Observes computer alarms MSSUC10 and RPSUC03 on the process computer	Sat/Unsat
9. Reports to the SM that RPS A did not trip and/or RPS A, C, E & G white lights are still ON.	<b><i>Cue: As the SM, acknowledge the report of the failure of RPS A to trip.</i></b>  <b><i>Cue: If asked, inform the candidate to take the appropriate action.</i></b>	Sat/Unsat
10. Obtains a copy of N2-SOP-97 flow chart.	<input type="checkbox"/> References N2-SOP-97 flow chart	Sat/Unsat
11. Stop any half scram <u>OR</u> isolation testing	<input checked="" type="checkbox"/> Notifies the SM to stop half scram or isolation testing.  NOTE: The candidate may also notify the CRS, or just make the decision that the surveillance test has already been stopped and not inform anyone.	Sat/Unsat
12. What was the cause?	<b><i>Cue: As the SM, acknowledge the request.</i></b>  <input type="checkbox"/> Determines the cause of the RPS failure is a FAILURE TO TRIP	Sat/Unsat
24. Arm and Depress manual scram switches for the affected channel	<input checked="" type="checkbox"/> Rotate REACTOR SCRAM A2 collar clockwise to the ARMED position. <input checked="" type="checkbox"/> Depress REACTOR SCRAM A2 pushbutton.	<b>Pass/Fail</b>  <b>Pass/Fail</b>

Performance Steps	Standard	Grade
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25. Verify the following indications:

- PILOT SCRAM SOLENOIDS A, C, E & G indicating lights on 2CEC\*PNL603 are OFF
- REACTOR SCRAM TRIP LOGIC A1 indicating light on 2CEC\*PNL609 is OFF

- Observes Pilot SCRAM valve solenoids white lights A, C, E & G – OFF

Sat/Unsat

Sat/Unsat

**Cue: When asked, state that the Reactor SCRAM Trip Logic A2 white light located on P609 is OFF**

26. Reports that RPS A is tripped.

**CUE: Acknowledge the report.**

**TERMINATING CUE:** Cycle CV1 results in a RPS failure, then insert a manual trip of RPS A2 logic.

**RECORD STOP TIME** \_\_\_\_\_

\_\_\_\_\_

Initial Conditions:

1. The plant is at 85% power.
2. No equipment is out of service.
3. A second RO is available to assist with surveillance performance.
4. Ask the operator for any questions.

Initiating cue:

“(Operator’s name), Perform Turbine Control Valve Cycling per N2-OSP-RPS-Q001.”

*Candidate: Direct ALL communications and announcements through the JPM Evaluator, first.*



Constellation Energy Group  
OPERATOR JOB PERFORMANCE MEASURE

Title: Shift Running Instrument Air Compressors  
Task Number: 2780040101

Revision: NRC 2005

Approvals:

DAN [Signature] 3/16/05  
General Supervisor Date  
Operations Training (Designee)

NA EXAMINATION SECURITY  
General Supervisor Date  
Operations (Designee)

NA EXAMINATION SECURITY  
Configuration Control Date

Performer: \_\_\_\_\_ (RO/SRO)

Trainer/Evaluator: \_\_\_\_\_

Evaluation Method:  Perform  Simulate

Evaluation Location:  Plant  Simulator

Expected Completion Time: 15 minutes Time Critical Task: NO Alternate Path Task: Yes

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Completion Time: \_\_\_\_\_

JPM Overall Rating: Pass Fail

NOTE: A JPM overall rating of fail shall be given if any critical step is graded as fail. Any grade of unsat or individual competency area unsat requires a comment.

Comments:

Evaluator Signature: \_\_\_\_\_

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

Recommended Start Location:  
Simulator

Simulator Set-up:

1. Reset to IC20 or equivalent
2. Verify A-B-C air compressor line-up
3. Enter the following Malfunctions:
  - ☐ IA02A, 2IAS-C3A Thermal Overload Trip, TUA = 5 sec ET77
  - ☐ IA02B, 2IAS-C3B Thermal Overload Trip, TUA = 1 min ET77
4. Enter the following Instructor Overrides:
  - ☐ P851-1B-2IASA01-A, Instrument Air Compressor Selector SW, POS\_4, TUA = 15 sec ET77 (P11/21)
  - ☐ P851-1B-2IASA01-A, Instrument Air Compressor Selector SW, POS\_3, TUA = 15 sec ET91 (P11/21)

Directions to Operators:

Read Before Every JPM Performance:

For the performance of this JPM, I will function as the SM, CSO, and Auxiliary Operators. Prior to providing direction to perform this task, I will provide you with the initial conditions and answer any questions. During task performance, I will identify the steps to be simulated, or discuss and provide cues as necessary.

Read Before Each Evaluated JPM Performance:

This evaluated JPM is a measure of your ability to perform this task independently. The Control Room Supervisor has determined that a verifier is not available and that additional / concurrent verification will not be provided; therefore it should not be requested.

Read Before Each Training JPM Performance:

During this Training JPM, applicable methods of verification are expected to be used. Therefore, either another individual or I will act as the additional / concurrent verifier.

Notes to Instructor / Evaluator:

1. Critical steps are identified as **Pass/Fail**. All steps are sequenced critical unless denoted by a "•".
2. During Evaluated JPM:
  - Self-verification shall be demonstrated.
3. During Training JPM:
  - Self-verification shall be demonstrated.
  - No other verification shall be demonstrated.

References:

1. N2-OP-19, Section F.2.0
2. N2-SOP-19
3. NUREG K/A 295019 AA2.01 3.5/3.6

Tools and Equipment:

1. None

Task Standard: IAS-C3C is running and IAS header pressure has recovered above alarm setpoint.

Initial Conditions:

1. The plant is operating at 100% power.
2. 2IAS-C3A is operating but degraded.
3. IAS 120VAC remains energized.
4. Ask the operator for any questions.

Initiating cue:

**RO** - "(Operator's name), Shift Instrument Air Compressors from 'A' running to 'B' running per N2-OP-19 Section

F.2.0.

**SRO**- "(Operator's name), Shift Instrument Air Compressors from 'A' running to 'B'.

<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
1. Provide repeat back of initiating cue. <i>Evaluator Acknowledge repeat back providing correction if necessary</i>	Proper communications used for repeat back (GAP-OPS-O1)	Sat/Unsat

**RECORD START TIME \_\_\_\_\_**

2. •Obtain a copy of the reference procedure and review/utilize the correct section.	N2-OP-19 obtained. Precautions & Limitations reviewed and section F.2.0 referenced.	Sat/Unsat
3. For the oncoming 2IAS –C3B: • Verify OFF/OPERATE switch in OPERATE • Verify UNLOAD/NORMAL switch in NORMAL • Confirm fault indicator lamps extinguished	<input type="checkbox"/> Requests an in-plant operator to verify that IAS-C3B is ready to start.  <b><i>Cue: As an operator at the Air Compressor, report that the OFF/OPERATE switch is in OPERATE, the UNLOAD/NORMAL switch is in NORMAL, and all fault indicator lights are OFF</i></b>	Sat/Unsat
4. Slowly open 2CCP-V523	<input type="checkbox"/> Request that the in-plant operator slowly open 2CCP-V523  <b><i>Cue: As an in-plant operator report that 2CCP-V523 is open</i></b>	Sat/Unsat
5. Select 2IAS-C3B as LEAD on Instrument Air Compressor Selector at P851	<input type="checkbox"/> Rotates Instrument Air Compressor Selector Switch to BCA position	<b>Pass/Fail</b>
6. Place 2IAS-C3B control switch in Normal-After Start at P851	<input type="checkbox"/> Rotates IAS-C3B control switch to START <input type="checkbox"/> Observes IAS-C3B red light – ON <input type="checkbox"/> Observes IAS-C3B green light – OFF <input type="checkbox"/> Observes AM-2IASB03 amps – rise to 280 amps and drop back to 175 amps.	Sat/Unsat Sat/Unsat Sat/Unsat
	<input type="checkbox"/> Releases IAS-C3B to the NORMAL-AFTER-START	<b>Pass/Fail</b>

Performance Steps	Standard	Grade
7. IAS-C3A trips on thermal overload	<ul style="list-style-type: none"> <li data-bbox="794 214 1364 314">❑ Observes Annunciator 851228, INSTR AIR CPSR 3A/3B/3C AUTO START/ FAIL TO TRIP – LIT</li> <li data-bbox="794 314 1364 348">❑ Observes IAS-C3A green light – ON</li> <li data-bbox="794 348 1364 383">❑ Observes IAS-C3A red light – OFF</li> <li data-bbox="794 383 1364 417">❑ Observes AM-2IASA03 amps – 0</li> </ul> <p data-bbox="794 451 1364 725">NOTE: Annunciators 851259, INST AIR COMPRESSOR CLG WTR FLOW LOW, and 851260, INST AIR COMPRESSOR COOLING SYS TROUBLE may alarm. These annunciators are of no consequence to the JPM, and the candidates may not respond to them.</p>	<p data-bbox="1364 214 1531 248">Sat/Unsat</p> <p data-bbox="1364 314 1531 348">Sat/Unsat</p> <p data-bbox="1364 348 1531 383">Sat/Unsat</p> <p data-bbox="1364 383 1531 417">Sat/Unsat</p>
8. •Reports to the CRS that IAS-3CA has tripped on thermal overload/motor electrical fault	<p data-bbox="794 759 1364 825"><b>Cue: Acknowledge the report of IAS-C3A trip</b></p>	<p data-bbox="1364 759 1531 825">Sat/Unsat</p>
9. •Obtains and references ARP 851228	<ul style="list-style-type: none"> <li data-bbox="794 902 1364 936">❑ Enter N2-SOP-19</li> <li data-bbox="794 936 1364 1036">❑ May dispatch an operator to check the running and tripped air compressor</li> <li data-bbox="794 1036 1364 1102">❑ Rotates and pulls IAS-C3A control switch to PULL-TO-LOCK</li> <li data-bbox="794 1102 1364 1168">❑ Verify the Instrument Air Compressor Selector in the BCA position</li> </ul> <p data-bbox="794 1202 1364 1342"><b>NOTE: If IAS-C3A control switch is placed in PULL-TO-LOCK prior to the trip of IAS-C3B, annunciator 851228 will alarm.</b></p>	<p data-bbox="1364 902 1531 936">Sat/Unsat</p> <p data-bbox="1364 1036 1531 1102"><b>Pass/Fail</b> Sat/Unsat</p>
10. •IAS-C3B Trips	<ul style="list-style-type: none"> <li data-bbox="794 1376 1364 1410">❑ Observes IAS-C3B green light – ON</li> <li data-bbox="794 1410 1364 1442">❑ Observes IAS-C3B red light – OFF</li> </ul>	<p data-bbox="1364 1376 1531 1410">Sat/Unsat</p> <p data-bbox="1364 1410 1531 1442">Sat/Unsat</p>
11. •Reports to the CRS that IAS-3CB has tripped on thermal overload/motor electrical fault	<p data-bbox="794 1485 1364 1551"><b>Cue: Acknowledge the report of IAS-C3B trip</b></p>	<p data-bbox="1364 1485 1531 1551">Sat/Unsat</p>
12. •Obtains and references N2-SOP-19	<ul style="list-style-type: none"> <li data-bbox="794 1619 1364 1685">❑ Determines the air compressors are tripped or degraded</li> </ul>	<p data-bbox="1364 1619 1531 1685">Sat/Unsat</p>
13. •Loss of all air compressors due to slow transfer or loss of control power?	<ul style="list-style-type: none"> <li data-bbox="794 1725 1364 1791">❑ Determines that electrical power and control power remain available</li> </ul>	<p data-bbox="1364 1725 1531 1791">Sat/Unsat</p>
14. •Annunciator 851229, INSTR AIR SYSTEM TROUBLE sounds.	<ul style="list-style-type: none"> <li data-bbox="794 1825 1364 1891">❑ Recognizes that IAS pressure is less than 90 psig.</li> <li data-bbox="794 1891 1364 1957">❑ Recognizes that IAS-C3C did not automatically start.</li> </ul>	<p data-bbox="1364 1825 1531 1891">Sat/Unsat</p> <p data-bbox="1364 1891 1531 1957">Sat/Unsat</p>

Performance Steps	Standard	Grade
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15. •If required start/verify auto started air compressors

16. Select IAS-C3C as the LEAD on the Instrument Air Compressor Selector Switch.

Rotates Instrument Air Compressor Selector Switch to the CAB position.

**Pass/Fail**

17. Place 2IAS-C3C control switch in Normal-After Start.

Rotates IAS-C3C control switch to START

**Pass/Fail**

Observes IAS-C3C red light – ON

Sat/Unsat

Observes IAS-C3C green light – OFF

Sat/Unsat

Observes AM-2IASC03 amps – rise to 280 amps and drop back to 175 amps.

Sat/Unsat

**Pass/Fail**

Releases IAS-C3C to the NORMAL-AFTER-START

18. Pressure Restored?

Observes 2IAS-PI101 pressure indication rising.

Sat/Unsat

19. Notifies the CRS Instrument Air Compressor 'C' did not start automatically. Instrument Air Compressor 'C' was manually started and Instrument Air pressure is recovering

**Cue: As the CRS, Acknowledge the report**

Sat/Unsat

End of JPM

**TERMINATING CUE:** IAS-C3C is running and IAS header pressure has recovered above alarm setpoint.

**RECORD STOP TIME** \_\_\_\_\_

Initial Conditions:

1. The plant is operating at 100% power.
2. 2IAS-C3A is operating but degraded.
3. IAS 120VAC remains energized.
4. Ask the operator for any questions.

Initiating cue:

**RO** - "(Operator's name), Shift Instrument Air Compressors from 'A' running to 'B' running per N2-OP-19 Section F.2.0.

**Candidate:**     *Direct ALL communications and announcements through the JPM Evaluator, first.*

Initial Conditions:

1. The plant is operating at 100% power.
2. 2IAS-C3A is operating but degraded.
3. IAS 120VAC remains energized.
4. Ask the operator for any questions.

Initiating cue:

**SRO-** "(Operator's name), Shift Instrument Air Compressors from 'A' running to 'B'.

**Candidate:**     *Direct ALL communications and announcements through the JPM Evaluator, first.*


Constellation Energy Group  
OPERATOR JOB PERFORMANCE MEASURE

Title: Manual Initiation of the Control Building Special Filter Train

Revision: NRC 2005

Task Number: 28800201012

Approvals:

 3/16/05  
General Supervisor Date  
Operations Training (Designee)

NA EXAMINATION SECURITY  
General Supervisor Date  
Operations (Designee)

NA EXAMINATION SECURITY  
Configuration Control Date

Performer: \_\_\_\_\_ (RO/SRO)

Trainer/Evaluator: \_\_\_\_\_

Evaluation Method:  Perform  Simulate

Evaluation Location:  Plant  Simulator

Expected Completion Time: 15 minutes Time Critical Task: NO Alternate Path Task: NO

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Completion Time: \_\_\_\_\_

JPM Overall Rating: Pass Fail

NOTE: A JPM overall rating of fail shall be given if any critical step is graded as fail. Any grade of unsat or individual competency area unsat requires a comment.

Comments:

Evaluator Signature: \_\_\_\_\_

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



Recommended Start Location: (Completion time based on the start location)

Simulator

Simulator Set-up (if required):

Any IC as long as no LOCA or LOOP exists that will automatically start Control Building Special Filter Train.

Directions to Operators:

Read Before Every JPM Performance:

For the performance of this JPM, I will function as the SM, CSO, and Auxiliary Operators. Prior to providing direction to perform this task, I will provide you with the initial conditions and answer any questions. During task performance, I will identify the steps to be simulated, or discuss and provide cues as necessary.

Read Before Each Evaluated JPM Performance:

This evaluated JPM is a measure of your ability to perform this task independently. The Control Room Supervisor has determined that a verifier is not available and that additional / concurrent verification will not be provided; therefore it should not be requested.

Read Before Each Training JPM Performance:

During this Training JPM, applicable methods of verification are expected to be used. Therefore, either another individual or I will act as the additional / concurrent verifier.

Notes to Instructor / Evaluator:

1. Critical steps are identified as **Pass/Fail**. All steps are sequenced critical unless denoted by a "•".
2. During Evaluated JPM:
  - Self-verification shall be demonstrated.
3. During Training JPM:
  - Self-verification shall be demonstrated.
  - No other verification shall be demonstrated.

References:

1. N2-OP-53A, Rev 08, Control Building Ventilation System
2. NUREG K/A 290003 A4.01 (3.2/3.2), 295038 EA1.07 (3.6/3.8)

Tools and Equipment:

1. None

Task Standard:

Control Building Special Filter Train A operating in the filtration mode

Initial Conditions:

1. EOP-MSL has been entered.
2. Control Building radiation levels are 6E-6 mci/cc and rising
3. Ask the candidate if they have any questions.

Initiating Cues:

**RO-** "(Operator's name), manually initiate Control Building Special Filter Train A per N2-OP-53A, section H.6.0."

**SRO-** "(Operator's name), manually initiate Control Building Special Filter Train A"

<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
1. Provide repeat back of initiating cue. <i>Evaluator Acknowledge repeat back providing correction if necessary</i>	<input type="checkbox"/> Proper communications used for repeat back (GAP-OPS-O1)	Sat/Unsat
<b>RECORD START TIME _____</b>		
2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	<input type="checkbox"/> N2-OP-53A obtained. Precautions & limitations reviewed & section H.6.0 referenced.	Sat/Unsat
3. Close HVC*MOV1A, CONTROL ROOM AC FLT TRAIN BYP VLV at 2CEC*PNL870.	<input type="checkbox"/> Places HVC*MOV1A control switch in CLOSE. <input type="checkbox"/> Observe HCV*MOV1A green light – ON <input type="checkbox"/> Observe HCV*MOV1A red light – OFF	<b>Pass/Fail</b>  Sat/Unsat Sat/Unsat
4. Close HVC*MOV1B, CONTROL ROOM AC FLT TRAIN BYP VLV at 2CEC*PNL871	<input type="checkbox"/> Places HVC*MOV1B control switch in CLOSED <input type="checkbox"/> Observe HVC*MOV1B green light – ON <input type="checkbox"/> Observe HVC*MOV1B red light – OFF	<b>Pass/Fail</b>  Sat/Unsat Sat/Unsat
5. Start HVC*FN2A, CONTROL ROOM AC BOOSTER FAN at 2CEC*PNL870.	<input type="checkbox"/> Places and holds HVC*FN2A control switch in START <input type="checkbox"/> Observes HVC*FN2A red light – ON <input type="checkbox"/> Observes HVC*FN2A green light – OFF <input type="checkbox"/> Returns the HVC*FN2A control switch to NORMAL-AFTER START.	<b>Pass/Fail</b>  Sat/Unsat Sat/Unsat <b>Pass/Fail</b>
6. Observe 2HVC*FR10A FILTER TRAIN HVC*FLT2A INLET AIR FLOW (red pen) should indicate approximately 63% of full scale (corresponds to approximately 2250 scfm).	<input type="checkbox"/> Observes 2HVC*FR10A FILTER TRAIN HVC*FLT2A INLET AIR FLOW (red pen) indicates approximately 63% of full scale.	Sat/Unsat
7. Confirm that Control Room/Atmosphere, d/p is $\geq +0.125$ in WG as read on 2HVC-PDI147, located in the Control Room behind 2CEC-PNL849.	<b>Cue: When operator walks behind Fire Panel 2CEC-PNL849 provide cue that PDI147 indicates +0.2 inches WG.</b>	Sat/Unsat

Performance Steps	Standard	Grade
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8. Observes the following at 2HVC\*PNLCH7A:
- ON INDICATOR red light ON
  - LOW AIRFLOW INDICATOR green light OFF
  - OVERTEMPERATURE INDICATOR green light OFF

- Dispatches Auxiliary Operator to verify indications locally on 2HVC\*PNLCH7A:

Sat/Unsat

NOTE: May simulate going to the panel instead of sending an Auxiliary Operator

**Cue: When asked, as the Auxiliary Operator Report:**

- **ON INDICATOR red light ON**
- **LOW AIRFLOW INDICATOR green light OFF**
- **OVERTEMPERATURE INDICATOR green light OFF**

9. Notify Radiation Protection to periodically sample the Control Room Atmosphere to ensure proper operation of the Special Filter Train in service.  
(Simulate)

**Cue: Acknowledge the request.**

10. Reports that Control Building Special Filter Train "A" has been initiated.

**Cue: Acknowledge the report.**

- **TERMINATING CUE:** Control Room Special Filter Train "A" initiated.

**RECORD STOP TIME** \_\_\_\_\_

Initial Conditions:

1. EOP-MSL has been entered.
2. Control Building radiation levels are  $6E-6$  mci/cc and rising
3. Ask the candidate if they have any questions.

Initiating Cues:

**RO-** "(Operator's name), manually initiate Control Building Special Filter Train A per N2-OP-53A, section H.6.0."

*Candidate: Direct ALL communications and announcements through the JPM Evaluator, first.*

Initial Conditions:

1. EOP-MSL has been entered.
2. Control Building radiation levels are  $6E-6$  mci/cc and rising
3. Ask the candidate if they have any questions.

Initiating Cues:

**SRO-** "(Operator's name), manually initiate Control Building Special Filter Train A"

*Candidate: Direct ALL communications and announcements through the JPM Evaluator, first.*


Constellation Energy Group  
OPERATOR JOB PERFORMANCE MEASURE

Title: Vent Control Rod Overpiston Volume

Revision: NRC 2005

Task Number: 2009620501, 2009620504

Approvals:

<u></u>	<u>3/16/05</u>	<u>NA EXAMINATION SECURITY</u>	_____
General Supervisor	Date	General Supervisor	Date
Operations Training (Designee)		Operations (Designee)	

NA EXAMINATION SECURITY  
\_\_\_\_\_

Configuration Control      Date

Performer: \_\_\_\_\_ (RO/SRO)

Trainer/Evaluator: \_\_\_\_\_

Evaluation Method: \_\_\_\_\_ Perform       X  Simulate

Evaluation Location:  X  Plant      \_\_\_\_\_ Simulator

Expected Completion Time: 20 minutes Time Critical Task: NO      Alternate Path Task: NO

Start Time: \_\_\_\_\_      Stop Time: \_\_\_\_\_      Completion Time: \_\_\_\_\_

JPM Overall Rating:      Pass      Fail

NOTE: A JPM overall rating of fail shall be given if any critical step is graded as fail. Any grade of unsat or individual competency area unsat requires a comment.

Comments:

Evaluator Signature: \_\_\_\_\_      Date: \_\_\_\_\_

Recommended Start Location: (Completion time based on the start location)

RP Access Area

Simulator Set-up (if required):

None

Directions to the Instructor/Evaluator:

Prior to the performance of this JPM, obtain SM / CSO general permission to open equipment cabinets and inspection covers. If opening the equipment cabinet or inspection cover will affect Tech. Spec. Operability, operational status, or the effects are unknown, obtain specific SM / CSO permission

Directions to Operators:

Read Before Every JPM Performance:

For the performance of this JPM, I will function as the SM, CSO, and Auxiliary Operators. Prior to providing direction to perform this task, I will provide you with the initial conditions and answer any questions. During task performance, I will identify the steps to be simulated, or discuss and provide cues as necessary.

Read Before Each Evaluated JPM Performance:

This evaluated JPM is a measure of your ability to perform this task independently. The Control Room Supervisor has determined that a verifier is not available and that additional / concurrent verification will not be provided; therefore it should not be requested.

Read Before Each Training JPM Performance:

During this Training JPM, applicable methods of verification are expected to be used. Therefore, either another individual or I will act as the additional / concurrent verifier.

Notes to Instructor / Evaluator:

1. Critical steps are identified as **Pass/Fail**. All steps are sequenced critical unless denoted by a "•".
2. During Evaluated JPM:
  - Self-verification shall be demonstrated.
3. During Training JPM:
  - Self-verification shall be demonstrated.
  - No other verification shall be demonstrated.

References:

1. N2-EOP-6, Att. 14, Rev. 5, "Alternate Rod Insertions," Sections 3.6
2. NUREG 1123, K/A 295015, AA.1.01 (3.8/3.9)

Tools and Equipment:

EOP box has a breakaway tie-wrap.

Task Standard: Control Rod 26-59 at notch 00 and 2RDS\*V1 shut.

Initial Conditions:

1. A scram has occurred.
2. Several rods have not fully inserted.
3. Communications are established with Control Room.
4. An OD-7, Print out of Rod Positions is **NOT** available.
5. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name) using EOP-6, Attachment 14, insert control rod 26-59 to notch 00 by locally venting its overpiston area."

Performance Steps	Standard	Grade
1. Provide repeat back of initiating cue. <i>Evaluator Acknowledge repeat back providing correction if necessary</i>	Proper communications used for repeat back (GAP-OPS-O1/Operations Manual)	Sat/Unsat
<b>RECORD START TIME _____</b>		
2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure	Open EOP box by removing breakaway tie-wrap and review procedure and enclosures. Reference EOP-6, Att. 14, Section 3.6  Describe and identify the tools necessary to perform the task, but do <b>NOT</b> remove the tools from the EOP Box	Sat/Unsat
3. Locate the correct HCU (26-59).	Physically locate the correct HCU (26-59). Use Figure 14-1, RDS HCU LOCATIONS, as a guide, if required.	<b>Pass/Fail</b>
•4. Remove Cap from 2 RDS*V1, Withdraw Line Vent Valve Drain.  Cue: Simulate cap removal.	AT HCU, use wrench to remove the Withdraw Line Vent Valve Cap.	<b>Pass/Fail</b>
•5. Connect adapter.  Cue: Simulate drain adapter connected.	At HCU, connect adapter to the correct RDS*V1 by threading in the quick disconnect adapter.	<b>Pass/Fail</b>



<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
<p>•6. Connect hose.</p> <p>Cue: Simulate hose connected and routed. If the candidate starts to go down the ladder to secure the hose at the drain, tell them another operator has secured the bottom of the hose.</p>	<p>At HCU, connect hose to the quick disconnect adapter and route to a drain. Secure the hose at the drain against whip.</p>	<b>Pass/Fail</b>
<p>•7. Uncap 2RDS*V1 Valve Operator.</p> <p>Cue: Simulate cap removed.</p>	<p>At HCU, remove cap from RDS*V1 Valve Operator.</p>	<b>Pass/Fail</b>
<p>8. Insert rod.</p> <p>Cue: Simulate RDS*V1 opened.</p>	<p>At HCU, slowly open RDS*V1 by inserting the T-handled HCU Vent Tool and rotating counter clockwise, venting the above piston area.</p>	<b>Pass/Fail</b>
<p>9. Report to Control Room.</p> <p>Cue: Acknowledge report and inform the operator that control rod 26-59 has fully inserted. To restore 26-59 to normal.</p>	<p>Report that RDS*V1 is opened. Request rod position.</p>	<b>Sat/Unsat</b>
<p>10. Shut RDS*V1.</p> <p>Cue: Simulate RDS*V1 shut.</p>	<p>At HCU, using the T-handled HCU Vent Tool shut RDS*V1 by rotating the operator clockwise.</p>	<b>Pass/Fail</b>
<p>11. Replace the cap on 2RDS*V1 Valve Operator.</p> <p>Cue: Simulate cap replaced.</p>	<p>At HCU, replace the cap on RDS*V1 Valve Operator.</p>	<b>Sat/Unsat</b>

<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
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**NOTE:** At this time the JPM may be stopped.

End of JPM

**TERMINATING CUE:** Control Rod 26-59 at notch 00 and 2RDS\*V1 shut.

**RECORD STOP TIME** \_\_\_\_\_

Initial Conditions:

1. A scram has occurred.
2. Several rods have not fully inserted.
3. Communications are established with Control Room.
4. An OD-7, Print out of Rod Positions is **NOT** available.
5. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name) using EOP-6, Attachment 14, insert control rod 26-59 to notch 00 by locally venting its overpiston area.”

*Candidate:*

*Direct ALL communications and announcements through the JPM Evaluator, first.*

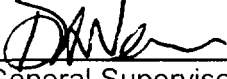
Constellation Energy Group  
OPERATOR JOB PERFORMANCE MEASURE

Title: Align Fire Water System to Inject to RHR A

Revision: NRC 2005

Task Number: 2009020504

Approvals:

 3/16/05  
General Supervisor Date  
Operations Training (Designee)

NA EXAMINATION SECURITY  
General Supervisor Date  
Operations (Designee)

NA EXAMINATION SECURITY  
Configuration Control Date

Performer: \_\_\_\_\_ (RO/SRO)

Trainer/Evaluator: \_\_\_\_\_

Evaluation Method: \_\_\_\_\_ Perform  Simulate

Evaluation Location:  Plant \_\_\_\_\_ Simulator

Expected Completion Time: 25 minutes Time Critical Task: NO Alternate Path Task: NO

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Completion Time: \_\_\_\_\_

JPM Overall Rating: Pass Fail

NOTE: A JPM overall rating of fail shall be given if any critical step is graded as fail. Any grade of unsat or individual competency area unsat requires a comment.

Comments:

Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Recommended Start Location: (Completion time based on the start location)

RP Access Area

Simulator Set-up (if required):

N/A

Directions to the Instructor/Evaluator:

Prior to the performance of this JPM, obtain SM / CSO general permission to open equipment cabinets and inspection covers. If opening the equipment cabinet or inspection cover will affect Tech. Spec. Operability, operational status, or the effects are unknown, obtain specific SM / CSO permission

Directions to Operators:

Read Before Every JPM Performance:

For the performance of this JPM, I will function as the SM, CSO, and Auxiliary Operators. Prior to providing direction to perform this task, I will provide you with the initial conditions and answer any questions. During task performance, I will identify the steps to be simulated, or discuss and provide cues as necessary.

Read Before Each Evaluated JPM Performance:

This evaluated JPM is a measure of your ability to perform this task independently. The Control Room Supervisor has determined that a verifier is not available and that additional / concurrent verification will not be provided; therefore it should not be requested.

Read Before Each Training JPM Performance:

During this Training JPM, applicable methods of verification are expected to be used. Therefore, either another individual or I will act as the additional / concurrent verifier.

Notes to Instructor / Evaluator:

1. Critical steps are identified as **Pass/Fail**. All steps are sequenced critical unless denoted by a "•".
2. During Evaluated JPM:
  - Self-verification shall be demonstrated.
3. During Training JPM:
  - Self-verification shall be demonstrated.
  - No other verification shall be demonstrated.

References:

1. EOP-6, Rev. 7, Attachment 6, RHR Fire Water System Cross-Tie
2. NUREG 1123, 295031, EA1.08 3.8 / 3.9

Tools and Equipment:

1. PL-3 Key
2. EOP tool boxes are secured with a breakaway tie-wrap

Task Standard:

Fire Water System is aligned to inject to RHR loop A per N2-EOP-6, Attachment 6.

Initial Conditions:

1. All high pressure feed to the RPV is lost.
2. Alternate injection systems are being lined up.
3. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), Line-up the Fire Water System to RHR loop A, per EOP-6, Attachment 6."

<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
1. Provide repeat back of initiating cue. <i>Evaluator Acknowledge repeat back providing correction if necessary.</i>	Proper communications used for repeat back (GAP-OPS-O1/Operations Manual)	Sat/Unsat

**RECORD START TIME \_\_\_\_\_**

•2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	N2-EOP-6, Attachment 6 obtained. Section 3.1 referenced.	Sat/Unsat
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**CUE: Steps 3.1.1, 3.1.2, 3.1.3 and 3.1.4 are complete.**

**NOTE:** For simulation purposes, actual layout of hoses/flanges and connection to pump or plant equipment is not required. Identification of hose/flange and use along with connection points is all that is required.

3. Verify closed 2RHS*V70, CONDENSATE FLUSH TO 'A' CONTMT SPRAY HDR.  Cue: 2RHS*V70 is closed	2RHS*V70, CONDENSATE FLUSH TO 'A' CONTMT SPRAY HDR is rotated in the clockwise direction to verify it is closed. (Rx Bldg EL 289).	Sat/Unsat
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<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
<p>4. Close 2CNS-V621, CNS TO RHR SUPPLY ISOL.</p> <p>Cue: 2CNS-V621 is closed</p>	<p>2CNS-V621, CNS TO RHR SUPPLY ISOL is rotated in the clockwise direction to verify it is closed. (<i>Rx Bldg, Northside EL289 above 2RHS*MOV24A, LPCI Injection Valve</i>).</p>	Sat/Unsat
<p>5. Remove test connection blind flange from between valves 2CNS-V621 <b>AND</b> 2RHS*V70.</p> <p>Cue: Blind flange is removed</p>	<p>Blind Flange is properly removed using the tools from the EOP gang box. (<i>Rx Bldg EL 289</i>)</p>	<b>Pass/Fail</b>
<p>6. Install 2 ½ inch fire hose adapter to test connection.</p> <p>Cue: Adapter is installed.</p>	<p>Adapter installed to test connection flange correctly using tools from the EOP gang box.</p>	<b>Pass/Fail</b>
<p>7. Connect male end of 2 ½ inch fire hose from EOP box to test connection flange adapter.</p> <p>Cue: Male end of 2 ½ inch fire hose is connected to test connection flange adapter.</p>	<p>Male end of 2 ½ inch fire hose from EOP box is properly connected to test connection flange adapter</p>	<b>Pass/Fail</b>
<p>8. Disconnect firehose at FHR 93</p> <p>Cue: Firehose is connected from FHR 93</p>	<p>Firehose from EOP gangbox is properly connected to FHR 93 using tools from the EOP gang box. (<i>Rx Bldg, EL 289, near North stairwell entrance</i>)</p>	<b>Pass/Fail</b>
<p>9. Connect 2 1/2" firehose from test connection flange adapter to FHR 93.</p> <p>Cue: Firehose is connected to FHR 93</p>	<p>Firehose is properly connected to FHR 93 using tools from the EOP gang box</p>	<b>Pass/Fail</b>
<p>10. Open 2FPW-V391, FHR 93 ANGLE VALVE</p> <p>Cue: 2FPW-V391is open</p>	<p>2FPW-V391, FHR 93 ANGLE VALVE is opened by rotating the handwheel in the counterclockwise direction.</p>	<b>Pass/Fail</b>



<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
11. Unlock <b>AND</b> open 2RHS*V70  Cue: 2RHS*V70 is unlocked and open.	Using the PL-3 Key, unlock <b>AND</b> open 2RHS*V70 by rotating the handwheel in the counterclockwise direction.	<b>Pass/Fail</b>
10. Notify control room that fire water is lined-up to inject via RHR 'A'		<b>Sat/Unsat</b>

End of JPM

**TERMINATING CUE:** Fire Water System is aligned to inject to RHR loop A per N2-EOP-6, Attachment 6.

**RECORD STOP TIME** \_\_\_\_\_

Initial Conditions:

1. All high pressure feed to the RPV is lost.
2. Alternate injection systems are being lined up.
3. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), Line-up the Fire Water System to RHR loop A, per EOP-6, Attachment 6.”

*Candidate:*

*Direct ALL communications and announcements through the JPM Evaluator, first.*

Constellation Energy Group  
OPERATOR JOB PERFORMANCE MEASURE

Title: Lower Control Building Operator During Control Room Evacuation      Revision: NRC 2005  
Task Number: 2640020101

Approvals:

      3/16/05  
General Supervisor      Date  
Operations Training (Designee)

NA EXAMINATION SECURITY  
General Supervisor      Date  
Operations (Designee)

NA EXAMINATION SECURITY  
Configuration Control      Date

Performer: \_\_\_\_\_ (RO/SRO)

Trainer/Evaluator: \_\_\_\_\_

Evaluation Method: \_\_\_\_\_ Perform       X  Simulate

Evaluation Location:  X  Plant      \_\_\_\_\_ Simulator

Expected Completion Time: 25 minutes Time Critical Task: NO      Alternate Path Task: Yes

Start Time: \_\_\_\_\_      Stop Time: \_\_\_\_\_      Completion Time: \_\_\_\_\_

JPM Overall Rating:      Pass      Fail

NOTE: A JPM overall rating of fail shall be given if any critical step is graded as fail. Any grade of unsat or individual competency area unsat requires a comment.

Comments:

Evaluator Signature: \_\_\_\_\_      Date: \_\_\_\_\_

Recommended Start Location:

Control Building Elev. 261 in the vicinity of the Remote Shutdown or Diesel Generator Rooms

Simulator Set-up:

N/A

Directions to the Instructor/Evaluator:

Prior to the performance of this JPM, obtain SM / CSO general permission to open equipment cabinets and inspection covers. If opening the equipment cabinet or inspection cover will affect Tech. Spec. Operability, operational status, or the effects are unknown, obtain specific SM / CSO permission

Directions to Operators:

Read Before Every JPM Performance:

For the performance of this JPM, I will function as the SM, CSO, and Auxiliary Operators. Prior to providing direction to perform this task, I will provide you with the initial conditions and answer any questions. During task performance, I will identify the steps to be simulated, or discuss and provide cues as necessary.

Read Before Each Evaluated JPM Performance:

This evaluated JPM is a measure of your ability to perform this task independently. The Control Room Supervisor has determined that a verifier is not available and that additional / concurrent verification will not be provided; therefore it should not be requested.

Read Before Each Training JPM Performance:

During this Training JPM, applicable methods of verification are expected to be used. Therefore, either another individual or I will act as the additional / concurrent verifier.

Notes to Instructor / Evaluator:

1. Critical steps are identified as **Pass/Fail**. All steps are sequenced critical unless denoted by a "•".
2. During Evaluated JPM:
  - Self-verification shall be demonstrated.
3. During Training JPM:
  - Self-verification shall be demonstrated.
  - No other verification shall be demonstrated.

References:

1. N2-SOP-78
2. N2-OP-100A Section H.13

Tools and Equipment:

1. None

Task Standard: Division I Diesel Generator locally started and output breaker 101-1 locally closed.

Initial Conditions:

1. Plant has scrammed
2. Control Room Evacuation is required
3. You are the Lower Control Building Operator
4. Lower Control Building Operator immediate actions are in progress
5. 2VBS\*PNLB100 Breakers 3 and 4 have just been positioned to OFF.
6. Ask the operator for any questions.

Initiating cue:

“(Operator’s name), complete the Immediate and Subsequent Actions of N2-SOP-78.”

Performance Steps	Standard	Grade
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1. Provide repeat back of initiating cue. <i>Evaluator Acknowledge repeat back providing correction if necessary</i>	Proper communications used for repeat back (GAP-OPS-O1)	Sat/Unsat
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**RECORD START TIME \_\_\_\_\_**

2. •Obtain a copy of the reference procedure and review/utilize the correct section.	<input type="checkbox"/> Obtain copy of N2-SOP-78.	Sat/Unsat
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3. Reports to Remote Shutdown/Diesel Generator Room Area	<input type="checkbox"/> Reports to Remote Shutdown/Diesel Generator Room Area	
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**Cue: *When asked if the Division any Diesel Generator started, inform the Lower Control Building Operator (candidate) that Division I Diesel Generator did NOT start***

<input type="checkbox"/> Acknowledges Division I Diesel Generator did NOT start	Sat/Unsat
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<input type="checkbox"/> Acknowledges loss of Line 5 occurred	Sat/Unsat
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<input type="checkbox"/> Determines Offsite power is lost to ENS*SWG101	Sat/Unsat
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<input type="checkbox"/> Determines Division I Diesel Generator must be started locally using N2-OP-100A, section H.13 and prestart checks and data recording is NOT required.	Sat/Unsat
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**NOTE: ALL actions are to be SIMULATED. No equipment is to be operated by candidates.**

Performance Steps	Standard	Grade
4. •Obtain a copy of the reference procedure and review/utilize the correct section.	□ Obtains copy of N2-OP-100A and reviews section H.13	Sat/Unsat
5. Verify Lube Oil AND Jacket Water Temperatures are >75°F.  <b>Cue: Lube oil and jacket water temperatures are 125°F.</b>	□ <b>SIMULATE:</b> Verifies Lube Oil AND Jacket Water Temperatures are >75°F, by use of RTD Temperature Meter Selector switch selected to Point 1 and Point 5	Sat/Unsat
6. Verify NO Lube Oil OR Jacket Water High Temperature Alarms exist.	□ Observes NO Lube Oil OR Jacket Water High Temperature annunciators lit at 2CES*IPNL406, ENGINE CONTROL PANEL	Sat/Unsat
7. At 2CES*IPNL407, GENERATOR CONTROL PANEL, perform the following:		
□ Verify 2ENS*SWG101-13, CIRCUIT BREAKER PREFERRED OFFSITE, is open.	□ Verifies 2ENS*SWG101-13, CIRCUIT BREAKER PREFERRED OFFSITE, is open by observing green light ON and red light OFF.	Sat/Unsat
<b>Cue: Circuit Breaker Preferred Offsite breaker green light is ON and red light is OFF.</b>		
□ Verify 2ENS*SWG101-10, CIRCUIT BREAKER ALTERNATE OFFSITE, is open.	□ Verifies 2ENS*SWG101-10, CIRCUIT BREAKER ALTERNATE OFFSITE, is open by observing both green and red lights OFF.	Sat/Unsat
<b>Cue: Circuit Breaker Alternate Offsite breaker green light is OFF and red light is OFF.</b>	NOTE: 2ENS*SWG101-10 is a "cubicle only" arrangement. There is no breaker installed in this switchgear cubicle.	
□ Verify 2ENS*SWG101-N1, CIRCUIT BREAKER NEUTRAL, is closed.	□ Verifies 2ENS*SWG101-N1, CIRCUIT BREAKER NEUTRAL, is closed by observing green light OFF and red light ON.	Sat/Unsat

Performance Steps	Standard	Grade
<p><b>Cue: Circuit Breaker Preferred Offsite breaker green light is OFF and red light is ON.</b></p>		
<p><input type="checkbox"/> Verify GOVERNOR mode switch is in ISOCH.</p>	<p><input type="checkbox"/> Verifies GOVERNOR mode switch is in ISOCH.</p>	<p>Sat/Unsat</p>
<p><b>Cue: GOVERNOR mode switch is in ISOCH.</b></p>		
<p><input type="checkbox"/> Verify VOLTAGE REGULATOR MANUAL-AUTO switch is in AUTO.</p>	<p><input type="checkbox"/> Verify VOLTAGE REGULATOR MANUAL-AUTO switch is in AUTO.</p>	<p>Sat/Unsat</p>
<p><b>Cue: VOLTAGE REGULATOR MANUAL-AUTO switch is in AUTO</b></p>		
<p><b>NOTE:</b> A Service Water Pump will have to be started shortly after reenergizing the Bus to provide cooling to the Diesel Generator.</p>		
<p>8. Perform prestart checks on a Division I Service Water Pump in accordance with N2-OP-11, Service Water System.</p>	<p><input type="checkbox"/> Acknowledges prestart checks are complete for Service Water Pump A.</p>	<p>Sat/Unsat</p>
<p><b>Cue: Inform candidate that another operator has completed prestart checks on Service Water Pump A.</b></p>		
<p>9. At 2CES*IPNL406, ENGINE CONTROL PANEL, perform the following:</p>		
<p><input type="checkbox"/> Place CONTROL MODE switch in LOCAL AND verify the white LOCAL indicating light is illuminated.</p>	<p><input type="checkbox"/> <b>SIMULATE:</b> Place CONTROL MODE switch in LOCAL</p> <p><input type="checkbox"/> Verifies the white LOCAL indicating light is illuminated</p>	<p><b>Pass/Fail</b></p> <p>Sat/Unsat</p>
<p><b>Cue: CONTROL MODE</b></p>		

Performance Steps	Standard	Grade
<p>switch is in LOCAL AND the white LOCAL indicating light is illuminated.</p>		
<p><input type="checkbox"/> Depress ENGINE CONTROL START pushbutton</p>	<p><input type="checkbox"/> <b>SIMULATE:</b> Depresses ENGINE CONTROL START pushbutton</p>	<p><b>Pass/Fail</b></p>
<p>10. At 2CES*IPNL407, verify the following Diesel Generator start indications:</p>		
<p><input type="checkbox"/> Diesel Speed as indicated on 12ESI-2EGSA04 ENGINE SPEED, rises to 600 RPM.</p>	<p><input type="checkbox"/> Confirms Diesel Speed as indicated on 12ESI-2EGSA04 ENGINE SPEED, rises to 600 RPM.</p>	<p>Sat/Unsat</p>
<p><b>Cue: Diesel Speed is 600 RPM</b></p>		
<p><input type="checkbox"/> Generator Voltage as indicated on GVM-2EGPA22 VOLTS GENERATOR, rises to 4160 A-C VOLTS.</p>	<p><input type="checkbox"/> Confirms Generator Voltage as indicated on GVM-2EGPA22 VOLTS GENERATOR, rises to 4160 A-C VOLTS.</p>	<p>Sat/Unsat</p>
<p><b>Cue: Generator Voltage is 4160 Volts AC</b></p>		
<p><input type="checkbox"/> Generator Frequency as indicated on FM-2EGPA22 FREQUENCY GENERATOR, rises to 60 HERTZ.</p>	<p><input type="checkbox"/> Confirms Generator Frequency as indicated on FM-2EGPA22 FREQUENCY GENERATOR, rises to 60 HERTZ.</p>	<p>Sat/Unsat</p>
<p><b>Cue: Generator Frequency is 60 Hz</b></p>		
<p><input type="checkbox"/> Generator Field Current as indicated on GFAM-2EGPA21 AMPS FIELD, indicates about 91 DC AMPERES.</p>	<p><input type="checkbox"/> Confirms Generator Field Current as indicated on GFAM-2EGPA21 AMPS FIELD, indicates about 91 DC AMPERES.</p>	<p>Sat/Unsat</p>
<p><b>Cue: Generator Field Current indicates about 91 DC AMPERES</b></p>		
<p>11. At 2ENS*SWG101, manually close 2ENS*SWG101-1, EMG. GEN. 2EGS G1.</p>	<p><input type="checkbox"/> <b>SIMULATE:</b> At 2ENS*SWG101, manually closes 2ENS*SWG101-1, EMG. GEN. 2EGS G1</p>	<p><b>Pass/Fail</b></p>



<i>Performance Steps</i>	<i>Standard</i>	<i>Grade</i>
12. Start a Division I Service Water Pump in accordance with N2-OP-11.	<input type="checkbox"/> Acknowledges Service Water Pump A has been started.	Sat/Unsat
<b>Cue: Inform candidate that another operator has started Service Water Pump A.</b>		

13. Locally verify 2SWP*MOV66A (B), SERVICE WTR OUTLET, is open.	<input type="checkbox"/> In Division I Diesel Generator Room, locally verifies 2SWP*MOV66A, SERVICE WTR OUTLET, is open	<b>Pass/Fail</b>
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Note: 2SWP\*MOV66A position must be verified locally because 2CEC\*PNL852 is in the Main Control Room.

**Cue: SWP\*MOV66A is Open.**

14. Report Division I Diesel Generator is started and ENS*SWG101 is energized.
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End of JPM

**TERMINATING CUE:** Division I Diesel Generator locally started and output breaker 101-1 locally closed.

**RECORD STOP TIME** \_\_\_\_\_

Initial Conditions:

1. Plant has scrammed
2. Control Room Evacuation is required
3. You are the Lower Control Building Operator
4. Lower Control Building Operator immediate actions are in progress
5. 2VBS\*PNLB100 Breakers 3 and 4 have just been positioned to OFF.
6. Ask the operator for any questions.

Initiating cue:

"(Operator's name), complete the Immediate and Subsequent Actions of N2-SOP-78."