

Facility: Nine Mile Point Unit 1
Exam Level: RO SRO-I

Date of Examination: December 11, 2006
Operating Test No.: NRC EXAMINATION

Control Room Systems[@] (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)

System / JPM Title	Type Code*	Safety Function
JPM 1 Recirc/ Start a Recirc Pump At Power Proc N1-OP-1 H.4.0 KA 202001 A4.01 3.7/3.7 Bank O1-OPS-SJE-202-1-01 (originally a low power task)	S, M	1 REACTIVITY CONTROL
JPM 2 RB Vent/ Shift RB Supply and Exhaust Fans (<i>Exhaust Fan trips and original fan must be placed back in service</i>). Proc N1-OP-10 F.1.2, F.2.2, F.3.1 and ARP L1-1-5 alarm KA 288000 A4.01 3.1/2.9 Previous NRC 2002 JPM 4	S, P, M, A	9 RADIOACTIVITY RELEASE
JPM 3 Turb Gen Aux/ Place Generator Amplidyne In Service (<i>Amplidyne output fails low and must be removed from service</i>). Proc N1-OP-32 H.6.0, H.5.0 KA 245000 A4.02 3.1/2.9	S, N, A	4 HEAT REMOVAL
JPM 4 AC Elec/ Shift PB101 Power Source from R1014 to R1011 Proc N1-OP-30 H.8.0 KA 262001 A4.01 3.4/3.7 Previous NRC 2002 JPM 2	S, P, D	6 ELECTRICAL
JPM 5 FWLC/ Exercise RPV Level Column Switches (<i>After returning FWLC to automatic control, level transmitter fails downscale, requiring manual level control</i>). Proc N1-PM-Q8, N1-OP-16 KA 259002 A4.03 3.8/3.6	S, N, A	2 REACTOR WATER INVENTORY CONTROL
JPM 6 Primary Containment/Vent the Drywell During Power Operation Proc N1-OP-9 H.1.0 KA 223001 A4.03 3.4/3.4	S, N	5 CONTAINMENT INTEGRITY
JPM 7 RPS/ Reset RPS Scram and ARI After High Drywell Pressure Scram RO Only. This JPM is not performed by SRO-I Proc N1-SOP-1 KA 212000 A4.14 3.8/3.8	S, N, SD	7 INSTRUMENTATION
JPM 8 Main Steam/ Perform N1-ST-Q26 Partial Stroke Test of Two MSIVs at Power Proc N1-ST-Q26, Sections 8.2 and 8.3 KA 239001 A4.01 4.2/4.0	S, M	3 REACTOR PRESSURE CONTROL

In-Plant Systems[@] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)

JPM 9 Liquid Poison/ RPV Injection From LP Test Tank Proc N1-EOP-1 Attachment 12 KA 295031 EA1.08 3.8/3.9 Bank/Previous O1-OPS-PJE-1-21/NRC 2002 JPM 9	R, P, D, E, SD	1 REACTIVITY CONTROL
JPM 10 UPS/ Transfer RPS Bus 11 from UPS162A to 162B (RPS Bus 11 load will fail to transfer to UPS162B, resulting in Loss of RPS Bus 11. SOP-40.1 is entered which directs entry into N1-OP-40 to transfer RPS Bus 11 to alternate supply, I&C Bus 130) Proc N1-OP-40 F.1.0 and H.1.0 and N1-SOP-40.1 KA 212000 A2.02 3.7/3.9 Bank O1-OPS-PJE-212-1-08	R, M, A	7 INSTRUMENTATION
JPM 11 Feedwater/ Take Local Manual Control of Feedwater Flow Control Valve 12 Proc N1-OP-16 H.1.0 KA 259001 A2.05 3.0/3.0 Bank O1-OPS-PJE-259-1-08 (12 FCV)	R, D	2 REACTOR WATER INVENTORY CONTROL

@All control room (and in-plant) systems must be different and serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria	RO	Criteria	SROI	Criteria	SROU
(A)lternate path	4-6	4	4-6	4	2-3	NA
(C)ontrol room						
(D)irect from bank	≤9	3	≤8	3	≤4	NA
(E)mergency or abnormal in-plant	≥1	1	≥1	1	≥1	NA
(L)ow-Power or (SD)* Shutdown	≥1	2	≥1	1	≥1	NA
(N)ew or (M)odified from bank including 1(A)	≥2	8	≥2	7	≥1	NA
(P)revious two exams (randomly selected [#])	≤3	3	≤3	3	≤2	NA
(R)CA	≥1	3	≥1	3	≥1	NA
(S)imulator		8		7		

Planned Simulator JPM Combinations

JPM 1,2

JPM 3,4

JPM 5,6

JPM 7 standalone (RO Only)

JPM 8 standalone

NINE MILE POINT NUCLEAR STATION
OPERATOR JOB PERFORMANCE MEASURE

Title: Start A Recirc Pump At Power

Revision: NRC 2006

Task Number: 2020040101

Approvals:



General Supervisor 1/10/23/2006
Operations Training (Designee) Date

NA EXAM SECURITY /

General Supervisor Date
Operations (Designee)

NA EXAM SECURITY /

Configuration Control Date

Performer: _____ (RO/SRO)

Trainer/Evaluator: _____

Evaluation Method: Perform _____ Simulate

Evaluation Location: _____ Plant Simulator

Expected Completion Time: 25 min 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:

Evaluators Signature: _____

Date: _____

[REDACTED]

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

Unit 1 Simulator

Simulator Set-up (if required):

IC231 For Exam is equivalent. IC20 modified for 4 loop operation
Recirc Pump 11 is shutdown, discharge valve closed and controller in MAN.
Core Flow is reduced to 50 Mlbm/hr

Directions to the Instructor/Evaluator:

Prior to 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.

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, the use of applicable methods of verification and checking are expected. Therefore, either another individual or I will act as the independent verifier or peer checker.

Notes to Instructor / Evaluator:

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

References:

1. NUREG 1123, 202001, A4.01, 3.7/3.7
2. N1-OP-1, H.4.0

Tools and Equipment:

1. None

Task Standard: Recirc Pump 11 started and controlled by master controller per N1-OP-1.

Initial Conditions:

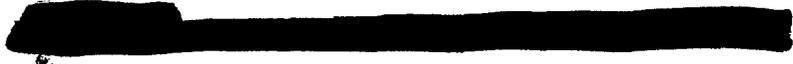
1. 4 loop power operations are in progress
2. Recirc Pump 11 is to be started and placed in service following corrective maintenance.
3. The pump is NOT in local manual or local lock.
4. All support personnel from Maintenance, I&C and Engineering are available to support the pump start.
5. All required briefings are complete.
6. Approved RMR is with SM and permission is granted to proceed with pump start.
7. Instructor to ask operator for any questions.

Initiating Cues:

RO : "(Operator's name), start Recirc Pump 11 per N1-OP-1, section H.4.0."

SRO : "(Operator's name), start Recirc Pump 11 per normal operating procedures."

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-01/ CNG-HU-1.01-1001)	Sat/Unsat
RECORD START TIME _____		
2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	N1-OP-1 is obtained. Precautions & limitations reviewed & section H.4.0	Sat/Unsat
3. IF selected RRP is in Local Manual or Local lock.....	<input type="checkbox"/> Identifies step as NA	Sat/Unsat
4. Verify the following:		
<input type="checkbox"/> Depress the RR MG 11 SCOOP TUBE AIR FAILURE LOCK RESET pushbutton (F Panel)	<input type="checkbox"/> Depresses RR MG 11 SCOOP TUBE AIR FAILURE LOCK RESET pushbutton (F Panel)	Sat/Unsat
<input type="checkbox"/> RR MG 11 SCOOP TUBE AIR FAILURE LOCK light extinguished.	<input type="checkbox"/> Observes RR MG11 SCOOP TUBE AIR FAILURE LOCK red light extinguished.	Sat/Unsat
<input type="checkbox"/> Verify Scoop Tube Position Meter (middle meter) is set at 40% by Control Room Indication.	<input type="checkbox"/> Observe Scoop Tube Position Meter (middle meter) at 40% by Control Room Indication.	Sat/Unsat
5. Confirm approximately 120 VAC across terminals 3 and 4 on Relay 31 VOLT REG REMOTE EXC (aux CR)	<input type="checkbox"/> Requests voltage reading from Electrical Maintenance (EM) personnel.	Sat/Unsat
Cue: Voltage reading across terminal 3 and 4 is 120 VAC.	<input type="checkbox"/> Acknowledges report of terminal voltage.	Sat/Unsat



Performance Steps	Standard	Grade
6. Check physical condition of Relay 63X, (Aux CR) and verify contacts pulled in (relay energized).	<input type="checkbox"/> Directs EM to check relay condition and verify contacts pulled in.	Sat/Unsat
Cue: Relay is energized with contacts pulled in.	<input type="checkbox"/> Acknowledges report of relay condition and relay energized.	Sat/Unsat
7. Directs the following steps be performed (in any order):	<input type="checkbox"/> Directs performance and acknowledges status for the following:	
Cue: All conditions below are correct for the pump start.		
<input type="checkbox"/> IF pump is isolated.....	<input type="checkbox"/> Step NA, pump is not isolated	Sat/Unsat
<input type="checkbox"/> Loop Flow instrument valved in	<input type="checkbox"/> Instrument valved in	Sat/Unsat
<input type="checkbox"/> Reactor Engineer notified....	<input type="checkbox"/> Reactor Engineer notified	Sat/Unsat
<input type="checkbox"/> Confirm exciter brushes not lifted	<input type="checkbox"/> Exciter brushes are properly installed	Sat/Unsat
<input type="checkbox"/> Confirm I/P air pressure signal > 10 psig	<input type="checkbox"/> Air pressure is above 10 psig	Sat/Unsat
<input type="checkbox"/> Bailey Scoop tube positioner connected	<input type="checkbox"/> Positioner is connected	Sat/Unsat
8. If placing the 5 th loop in service, THEN verify electrical and mechanical stops adjusted for 5 loop operation.	<input type="checkbox"/> Directs verification of electrical and mechanical stops adjusted for 5 loop operation.	Sat/Unsat
Cue: Electrical and mechanical stops are adjusted for 5 loop operation.	<input type="checkbox"/> Acknowledges report of stop adjustments.	Sat/Unsat
9. Confirm idle loop temperature is within 45°F of an operating loop by checking computer points.	<input type="checkbox"/> Calls up A427 and A428 for loop 11 <input type="checkbox"/> Calls up points for any operating loop. <input type="checkbox"/> Compares temperatures <input type="checkbox"/> Determines loops differential temperatures are within 45°F.	Sat/Unsat Sat/Unsat Sat/Unsat Pass/Fail
10. Verify RESET the following:		
<input type="checkbox"/> 86 GENERATOR LOCKOUT (Aux CR)	<input type="checkbox"/> Dispatches operator to Aux Control Room to verify lockout is reset.	Sat/Unsat
Cue: Report 86 generator lockout is reset.		
<input type="checkbox"/> PUMP MOTOR VIBRATION RESET (F Panel)	<input type="checkbox"/> Observes alarm F2-1-1 is cleared.	Sat/Unsat



Performance Steps	Standard	Grade
11. Verify recirculation flow is less than 50 x 10 ⁶ lbm/hr.	<input type="checkbox"/> Adjust RECIRC MASTER controller to establish flow is less than 50 x 10 ⁶ lbm/hr. (E Console)	Pass/Fail
12. Verify Recirc Pump M/A station AUTO/BAL/MAN switch to MAN	<input type="checkbox"/> Observes/checks Verify Recirc Pump 11 M/A station AUTO/BAL/MAN switch in MAN.	Sat/Unsat
13. Set RRECIRC PUMP 11 GEMAC OUTPUT (BOTTOM METER) to match running pumps with a maximum of 50%.	<input type="checkbox"/> Adjust RRECIRC PUMP 11 GEMAC OUTPUT (BOTTOM METER) to match running pumps with a maximum of 50%.	Pass/Fail
14. Verify closed REACTOR R PUMP 11 DISCHARGE VALVE	<input type="checkbox"/> Observe REACTOR R PUMP 11 DISCHARGE VALVE closed by green light indication (F Panel)	Sat/Unsat
15. Verify open the following: valves:		
<input type="checkbox"/> REACTOR R PUMP 11 SUCTION VALVE	<input type="checkbox"/> Observe REACTOR R PUMP 11 SUCTION VALVE open by red light indication (F Panel)	Sat/Unsat
<input type="checkbox"/> REACTOR R PUMP 11 BYPASS VALVE	<input type="checkbox"/> Observe REACTOR R PUMP 11 BYPASS VALVE open by red light indication (F Panel)	Sat/Unsat
<p>CAUTION: Failure to trip the generator when frequency drops to 0 hz could result in damage to the generator slip rings.</p>		
16. IF frequency drop to 0 hz..... Frequency is NOT expected to drop to 0	<input type="checkbox"/> IF Frequency drops to 0 Hz when field breaker closes, THEN places REACTOR RP MOTOR 11 switch at F	Sat/Unsat/ NA

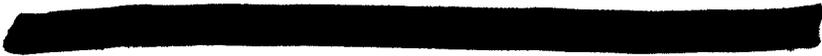


Performance Steps	Standard	Grade
-------------------	----------	-------

Panel to STOP. (Not expected)

NOTE: During start sequence, alarm F2-1-1 is expected to actuate. IF candidate begins to respond to this alarm inform candidate that a second operator will respond to this alarm.

17. Place in START REACTOR RP MOTOR 11 switch at F Panel and observe auto sequencing to confirm proper operation:	<input type="checkbox"/> Place REACTOR RP MOTOR 11 switch at F Panel to START	Pass/Fail
<input type="checkbox"/> MG MOTOR starts <input type="checkbox"/> MG Generator accelerates to 50-60 hz <input type="checkbox"/> Generator Field Breaker closes <input type="checkbox"/> Generator slows down toward 20% or 11.5 hz	<input type="checkbox"/> Observes start sequence: <input type="checkbox"/> MG MOTOR starts <input type="checkbox"/> MG Generator accelerates to 50-60 hz <input type="checkbox"/> Generator Field Breaker closes <input type="checkbox"/> Generator slows down toward 20% or 11.5 hz	Sat/Unsat
18. WHEN speed (Frequency Meter) is between 30 and 25 hz, open REACTOR R PUMP 11 DISCHARGE VALVE.	<input type="checkbox"/> Open REACTOR R PUMP 11 DISCHARGE VALVE.	Pass/Fail
19. IF reverse flow is observed as indicated by increasing Total Recirculation Flow and decreasing reactor power, THEN declare the APRMs inoperable and enter TS 3.6.2 (NOT expected)	<input type="checkbox"/> IF reverse flow conditions are observed, reports condition to SRO and notifies SRO of TS 3.6.2 entry requirement.	Sat/Unsat/ NA
20. IF desired THEN maintain Total Recirc Flow constant by reducing other pumps speeds.	<input type="checkbox"/> Acknowledges direction	Sat/Unsat/ NA
Cue: CRS does NOT desire to maintain total Recirc flow constant.		
21. Verify RRP 11 maintained within the following limits:	<input type="checkbox"/> Observes parameters and ensures they are below values listed.	Sat/Unsat
<input type="checkbox"/> Generator MW < 0.790 <input type="checkbox"/> Generator amps < 240 <input type="checkbox"/> RRP Flow < 16.8 X 10 ⁶ lbm/hr continuous <input type="checkbox"/> Generator Frequency 11.5 to 56 Hz		



Performance Steps	Standard	Grade
22. Adjust pumps speed to match other pumps.	<input type="checkbox"/> Adjust RECIRC PUMP 11 SPEED CONTROL MAN adjust knob such that pump speed matches speed of other pumps. (Approx 38 to 40Hz)	Pass/Fail
23. WHEN pump speed matches other pumps AND deviation (top meter) is at zero, place RRECIRC PUMP 11 SPEED CONTROL IN AUTO OR BALANCE, if desired.	<input type="checkbox"/> WHEN pump speed matches other pumps AND deviation (top meter) is at zero, place RRECIRC PUMP 11 SPEED CONTROL IN BAL.	Pass/Fail
Cue: Direct speed control placed in BAL		
24. Verify P/F map on E Panel updated to loop requirements.	<input type="checkbox"/> 5 loop P/F map is displayed at E Panel.	Sat/Unsat
25. Verify reset 50 SR PUMP MOTOR STALLED ROTOR target (Aux CR)	<input type="checkbox"/> Dispatches operator to verify target is reset. <input type="checkbox"/> Acknowledge report that target is reset.	Sat/Unsat
Cue: Report target is reset.		
26. IF recovering from 3 loop.....	<input type="checkbox"/> Step is NA	Sat/Unsat
27. Maintain Reactor Recirc MG Set Oil Cooler Outlet Temperatures 110 to 130°F by throttling oil cooler TBCLC outlet valves.	<input type="checkbox"/> Dispatches operator to maintain oil temperatures within limits per section F.3.0	Sat/Unsat
28. Remove any off normal signs previously posted for pump started.	<input type="checkbox"/> Removes any off normal condition signs.	Sat/Unsat
29. Report RRP 11 started to SRO.	<input type="checkbox"/> Reports RRP started to SRO	Sat/Unsat

END OF JPM

Terminating Cue: Recirc Pump 11 started and controlled by master controller per N1-OP-1.

RECORD STOP TIME _____



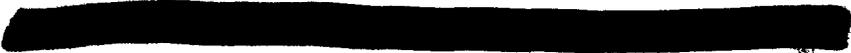
Initial Conditions:

1. 4 loop power operations are in progress
2. Recirc Pump 11 is to be started and placed in service following corrective maintenance.
3. The pump is NOT in local manual or local lock.
4. All support personnel from Maintenance, I&C and engineering are available to support the pump start.
5. All required briefings are complete.
6. Approved RMR is with SM and permission is granted to proceed with pump start.
7. Instructor to ask operator for any questions.

Initiating Cues:

RO : "(Operator's name), start Recirc Pump 11 per N1-OP-1, section H.4.0."

SRO : "(Operator's name), start Recirc Pump 11 per normal operating procedures."



SRO

Initial Conditions:

1. 4 loop power operations are in progress
2. Recirc Pump 11 is to be started and placed in service following corrective maintenance.
3. The pump is NOT in local manual or local lock.
4. All support personnel from Maintenance, I&C and engineering are available to support the pump start.
5. All required briefings are complete.
6. Approved RMR is with SM and permission is granted to proceed with pump start.
7. Instructor to ask operator for any questions.

Initiating Cues:

SRO : "(Operator's name), start Recirc Pump 11 per normal operating procedures."

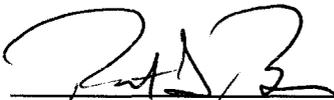


NINE MILE POINT NUCLEAR STATION
OPERATOR JOB PERFORMANCE MEASURE

Title: Shift Reactor Building Supply and Exhaust Fans (Alternate Path) Revision: NRC 2006

Task Number: 2880040101

Approvals:

 _____ General Supervisor Operations Training (Designee)	_____ Date	<u>10/23/2006</u>	_____ NA EXAM SECURITY General Supervisor Operations (Designee)	_____ Date
--	---------------	-------------------	--	---------------

 NA EXAM 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:

Evaluators Signature: _____ Date: _____

[REDACTED]

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

Unit 1 Simulator

Simulator Set-up (if required):

1. IC231 For Exam. Run with JPM 1
2. RX Building Supply and Exhaust Fans 11 in service, in SLOW.
3. Load bat file n06jpm2.bat
hzlhvf01g==1 is green light on for SUPPLY FAN 11
When it lights, Exh Fan 12 trips
trgset 1 "hzlhvf01g==1"
trg 1 "imf hv01b (1 0:05)"

Directions to the Instructor/Evaluator:

Prior to 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.

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, the use of applicable methods of verification and checking are expected. Therefore, either another individual or I will act as the independent verifier or peer checker.

Notes to Instructor / Evaluator:

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



References:

- 1. N1-OP-10

Tools and Equipment:

- 1. None

Task Standard:

Supply Fan 12 and Exhaust Fan 11 back in service, in fast speed.

Initial Conditions:

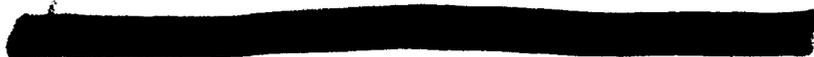
- 1. Reactor Building Exhaust Fan 11 and Reactor Building Supply Fan 11 are in service in SLOW.
- 2. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), place Reactor Building Exhaust and Supply Fans 12 in service per N1-OP-10 Section F. After shifting fans, place the operating fans in FAST speed.

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
RECORD START TIME _____		
2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	<input type="checkbox"/> N1-OP-10 obtained. Precautions & limitations reviewed & section F.1.2, F.2.2 and F.3.1 referenced.	Sat/Unsat
SUBSTITUTE EXHAUST FANS		
3. Verify operating RX Building supply and exhaust fans in SLOW. (F.1.2.1)	<input type="checkbox"/> Visually observe REACTOR BLDG SUPPLY FAN 11 <u>and</u> REACTOR BLDG EXHAUST FAN 11 fans in SLOW red slow light illuminated.	Sat/Unsat
4. Start REACTOR BLDG EXHAUST FAN 12 on SLOW (F.1.2.2)	<input type="checkbox"/> Rotate REACTOR BLDG EXHAUST FAN 12 control switch CW to the SLOW position observe red slow light illuminated, green light off.	Pass/Fail

Performance Steps	Standard	Grade
5. Confirm damper 202-07, REACTOR BLDG EXHAUST FAN 12 OUTLET DAMPER open. (F1.2.3)	<input type="checkbox"/> Observe 202-07 open red light on, green light off.	Sat/Unsat
6. Stop REACTOR BLDG EXHAUST FAN 11. (F1.2.4)	<input type="checkbox"/> Rotate REACTOR BLDG EXHAUST FAN 11 control switch CCW to the Off position.	Pass/Fail
7. Confirm damper 202-08, REACTOR BLDG EXHAUST FAN 11 OUTLET DAMPER closed. (F.1.2.5)	<input type="checkbox"/> Observe REACTOR BLDG EXHAUST FAN 11 OUTLET DAMPER closed green light on, red light off.	Sat/Unsat
8. Confirm normal system flow. (F.1.2.6)	<input type="checkbox"/> Observe annunciator L1-2-5 RB VENT EXH FLOW LOW is clear.	Sat/Unsat
SUBSTITUTE SUPPLY FANS		
9. Verify operating RX Building supply and exhaust fans in SLOW. (F.2.2.1)	<input type="checkbox"/> Visually observe REACTOR BLDG SUPPLY FAN 11 <u>and</u> REACTOR BLDG EXHAUST FAN 12 fans in SLOW red slow light illuminated.	Sat/Unsat
10. Start REACTOR BLDG SUPPLY FAN 12 on SLOW. (F.2.2.2)	<input type="checkbox"/> Rotate REACTOR BLDG SUPPLY FAN 12 control switch CW to the SLOW position observe red slow light illuminated, green light off.	Pass/Fail
11. Confirm damper FCV 202-04, REACTOR BLDG SUPPLY FAN 12 INLET DAMPER open. (F.2.2.3)	<input type="checkbox"/> Observe 202-04 open red light on, green light off	Sat/Unsat
12. Stop REACTOR BLDG SUPPLY FAN 11. (F.2.2.4)	<input type="checkbox"/> Rotate REACTOR BLDG SUPPLY FAN 11 control switch CCW to the Off position and observe red slow light off, green light illuminated.	Pass/Fail
13. Confirm damper 202-03, REACTOR BLDG SUPPLY FAN 11 OUTLET DAMPER closed. (F.2.2.5)	<input type="checkbox"/> Observe REACTOR BLDG SUPPLY FAN 11 OUTLET DAMPER closed green light on, red light off.	Sat/Unsat



Performance Steps	Standard	Grade
-------------------	----------	-------

ALTERNATE PATH

WHEN Supply Fan 11 is stopped (green light on, RB Exhaust Fan 12 trips. Annunciators L1-1-5, L1-2-5 and L1-3-4 alarm. RB differential pressure equalizes or goes slightly positive. (EOP-5 ENTRY)

14. Recognize and report alarms.	<input type="checkbox"/> Reports alarms and Exhaust Fan 12 tripped.	Sat/Unsat/NA
15. Implements actions per L1-1-5, RB VENT EXH FAN 11-12 TRIP-VIB		
<input type="checkbox"/> Confirm alarm on computer printout	<input type="checkbox"/> Identifies E126 RB VENT EXH FAN 12 TRIP	Sat/Unsat
<input type="checkbox"/> Dispatches operator to investigate	<input type="checkbox"/> Dispatches operator to investigate	Sat/Unsat
<input type="checkbox"/> IF fan trip verify closed outlet damper	<input type="checkbox"/> Observe REACTOR BLDG EXHAUST FAN 12 OUTLET DAMPER closed green light on, red light off	Sat/Unsat
<input type="checkbox"/> IF fan trip start standby Reactor Building Exhaust Fan	<input type="checkbox"/> Rotate REACTOR BLDG EXHAUST FAN 11 control switch CW to the SLOW position observe red slow light illuminated, green light off.	Pass/Fail

RB Exhaust Fan 11 and Supply Fan 12 are running in SLOW speed. RB differential pressure returns to normal. All alarms are clear, except L1-1-5.

SHIFT FAN SPEED

16. IF shifting fan speed from slow to fast, perform the following:		
<input type="checkbox"/> Place operating Reactor Bldg Exhaust fan control switch to FAST. (F.3.1.1)	<input type="checkbox"/> Rotate REACTOR BLDG EXHAUST FAN 11 control switch CW to the FAST position observe red fast light illuminated, green and red slow light is off.	Pass/Fail



Performance Steps	Standard	Grade
<input type="checkbox"/> Place operating Reactor Bldg Supply Fan control switch to FAST. (F.3.1.2)	<input type="checkbox"/> Rotate REACTOR BLDG SUPPLY FAN 12 control switch CW to the FAST position observe red fast light illuminated, green and red slow light is off.	Pass/Fail
<input type="checkbox"/> Verify Reactor Building/Differential Pressure between -0.25 and -0.4 inches water. (F.3.1.3)	<input type="checkbox"/> Observe Reactor Building/Differential Pressure between -0.25 and -0.4 inches water.	Sat/Unsat
<input type="checkbox"/> IF RB SUPPLY VENT HEATERS ON/OFF CONTROL SWITCH is in OFF, THEN place the RB SUPPLY VENT HEATERS ON/OFF CONTROL SWITCH in ON. (F.3.1.4)	<input type="checkbox"/> Dispatches operator to place switch to ON	Sat/Unsat
Cue: When dispatched report switch is placed to ON.		
<input type="checkbox"/> Adjust RB SUPPLY VENT HEATERS CONTROL SWITCH as directed by Shift Manager	<input type="checkbox"/> Acknowledges no adjustments are necessary.	Sat/Unsat
Cue: As SM, no adjustments are necessary.		
17. Notify SRO that REACTOR BLDG EXHAUST FAN 11 and REACTOR BLDG supply FAN 12 are running in FAST.	<input type="checkbox"/> Proper communications used.	Sat/Unsat

Cue: Acknowledge report.

END OF JPM

Terminating Cue: Supply Fan 12 and Exhaust Fan 11 back in service, in fast speed

RECORD STOP TIME _____

Initial Conditions:

1. Reactor Building Exhaust Fan 11 and Reactor Building Supply Fan 11 are in service in SLOW.
2. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), place Reactor Building Exhaust and Supply Fans 12 in service per N1-OP-10 Section F. After shifting fans, place the operating fans in FAST speed.

*Cue Confusing
State Shift from 11 to 12 fan
& then place in fast speed*

NINE MILE POINT NUCLEAR STATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Place Generator Amplidyne In Service (Alternate Path)

Revision: NRC 2006

Task Number: 2450090101

Approvals:


 General Supervisor _____ Date 10/23/2006
 Operations Training (Designee)

NA EXAM SECURITY _____
 General Supervisor _____ Date _____
 Operations (Designee)

NA EXAM SECURITY _____
 Configuration Control _____ Date _____

Performer: _____ (RO/SRO)

Trainer/Evaluator: _____

Evaluation Method: Perform _____ Simulate

Evaluation Location: _____ Plant Simulator

Expected Completion Time: 10 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:

Evaluators Signature: _____

Date: _____

[REDACTED]

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

Unit 1 Simulator

Simulator Set-up (if required):

For Exam IC228 and run with JPM 4

Amplidyne is shutdown. Voltage Regulation in MANUAL on EXCITER RHEOSTAT

Run bat n06jpm3.bat for setup of triggers listed below.

Place malfunction on TRG. EG03 GENERATOR AUTO VOLTAGE REGULATOR FAILS

(DECREASE). When MVAR is adjusted above 100 MVAR, the malfunction activates. MVAR > 100 is "hzaegvare >0.60" and malfunction is "imf eg03 (1 0:02)"

```
trgset 1 "hzaegvare >0.60"
```

```
trg 1 "imf eg03 (1 0:02)"
```

Directions to the Instructor/Evaluator:

Prior to 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.

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, the use of applicable methods of verification and checking are expected. Therefore, either another individual or I will act as the independent verifier or peer checker.

Notes to Instructor / Evaluator:

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

References:

1. N1-OP-32, H.6.0 and H.5.0

Tools and Equipment:

1. None

Task Standard: Generator Voltage control is established using EXCITER RHEOSTAT. MVARS are 50 to 100 to bus. The amplidyne no longer in service.

Initial Conditions:

1. Generator voltage control is with EXCITER RHEOSTAT
2. Amplidyne is shutdown and routine maintenance is complete.
3. Amplidyne is ready to be started up.
4. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), place the generator amplidyne back in service and adjust to 100 to 140 MVARS to bus, in accordance with N1-OP-32.”

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-01/ CNG-HU-1.01-1001)	Sat/Unsat
RECORD START TIME _____		
2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	N1-OP-32 is obtained. Precautions & limitations reviewed & section H.6.0	Sat/Unsat
3. Place VOLTAGE REG TRANSFER switch to TEST, at E Panel. <i>Green light remains on and VOLT REG AMPLIDYNE meter moves from 0 to about 60 DC Volts in Buck direction.</i>	<input type="checkbox"/> VOLTAGE REG TRANSFER switch to TEST	Pass/Fail
4. Adjust VOLTAGE REG ADJUSTMENT switch to 0 volts on VOLTAGE REG AMPLIDYNE Meter at E Panel or meter 1M at excitation cubicle. <i>VOLT REG AMPLIDYNE meter moves from 60 to 0 DC Volts</i>	<input type="checkbox"/> Adjust VOLTAGE REG ADJUSTMENT switch (RAISE) to 0 volts on VOLTAGE REG AMPLIDYNE Meter	Sat/Unsat



Performance Steps	Standard	Grade
-------------------	----------	-------

- | | | |
|---|---|------------------|
| 5. Place VOLTAGE REG TRANSFER switch to RUN at E Panel. | <input type="checkbox"/> Place VOLTAGE REG TRANSFER switch to RUN | Pass/Fail |
|---|---|------------------|

Red light illuminates. Initially VOLTAGE REG AMPLIDYNE meter remains at 0 DC Volts.

- | | | |
|---|---|--|
| 6. Adjust VOLTAGE REG ADJUSTMENT switch to MVAR Loading as directed by Power Control. | <input type="checkbox"/> Adjust VOLTAGE REG ADJUSTMENT switch (RAISE) to obtain 100 to 140 MVAR to Bus. | |
|---|---|--|

ALTERNATE PATH

When MVAR reaches 100 MVAR, malfunction EG03 becomes active after 2 second delay. MVAR goes to about 325 to Gen. No alarms will actuate but all meter indications are consistent with regulator failure, in the under-excited condition. At E Console, PH1, PH2 and PH3 GEN amps, GENERATOR MEGAVARS, DC FIELD AMPS all move in the lower direction as the generator becomes under-excited. VOLT REG AMPLIDYNE moves toward DC VOLTS BOOST direction.

- | | | |
|--|--|-----------|
| 7. Recognize and report improper operation of voltage regulator. | <input type="checkbox"/> Observe At E Console, PH1, PH2 and PH3 GEN amps, GENERATOR MEGAVARS, DC FIELD AMPS all move in the lower direction. | Sat/Unsat |
|--|--|-----------|

Provide the following cue, if candidate takes no action or recommends remaining at current conditions:

Cue: As Power Control, request that Nine Mile Point take action to return MVARs to at least 50 to 100 to bus to help stabilize grid voltage.

← Cue appears to be leading. If procedure driver should need to prompt this to occur

The candidate should recognize the need to take some action to restore grid voltage and that they should be returning MVARs to a value close to the original value.

Remove the Amplidyne from service per N1-OP-32 H.5.0, as follows:

- | | | |
|---|--|--|
| 8. IF conditions permit THEN perform the following: | | |
|---|--|--|



Performance Steps	Standard	Grade
-------------------	----------	-------

Notify Power Control prior to removal of amplidyne from service.

Contacts power control using telephone.

Sat/Unsat

Notify NY ISO prior to removal of amplidyne from service.

NY ISO notified by CRS

Sat/Unsat

Cue: As CRS, inform candidate that CRS will contact NY ISO and to proceed.

Adjust EXCITER RHEOSTAT to obtain zero volts on VOLTAGE REG AMPLIDYNE at E Panel meter or 1M Excitation Cubicle.

Adjust EXCITER RHEOSTAT switch (LOWER) to obtain zero volts on VOLTAGE REG AMPLIDYNE at E Panel meter.

Sat/Unsat

9. Place VOLTAGE REG TRANSFER switch to TEST

VOLTAGE REG TRANSFER switch to TEST

Pass/Fail

When VOLTAGE REG TRANSFER switch is placed in TEST, regulation is now on the EXCITER RHEOSTAT.

10. IF directed by SM, THEN place VOLTAGE REG TRANSFER switch to OFF to secure the amplidyne.

Acknowledge direction

Sat Unsat

Cue: As SM, direct the VOLTAGE REG TRANSFER switch to OFF.

Place VOLTAGE REG TRANSFER switch to OFF

Sat/Unsat

Cue: WHEN asked for desired MVAR loading, direct the candidate to establish 50 to 100 MVARs to Bus.

11. WHEN Power Control requests increase or decrease in VARS perform the following:

Turn the EXCITER RHEOSTAT knob to RAISE

Adjust EXCITER RHEOSTAT switch (RAISE) at E Panel to establish 50 to 100 MVARs to bus.

Pass/Fail

NOTE: WHEN candidate begins to observe conditions in steps 5.4.2 to 5.4.4, inform the candidate that these will be monitored by a second operator.

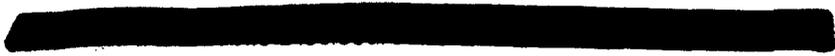
9. Notify SRO.

SRO notified of conditions.

Sat/Unsat

END OF JPM

Terminating Cue: Generator Voltage control is established using EXCITER RHEOSTAT. MVARs are 50 to 100 to bus. The amplidyne no longer in service.



RECORD STOP TIME _____



^jpm 3 setup n06jpm3.bat

^When MVAR is adjusted above 100 MVAR, the malfunction activates.

^MVAR > 100 is "hzaegvare >0.60" and malfunction is "imf eg03 (1 0:02)"

^reset to IC 228 in sim, which has amplidyne shutdown

^rst 228

trgset 1 "hzaegvare >0.60"

trg 1 "imf eg03 (1 0:02)"

^end setup



Initial Conditions:

1. Generator voltage control is with EXCITER RHEOSTAT
2. Amplidyne is shutdown and routine maintenance is complete.
3. Amplidyne is ready to be started up.
4. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), place the generator amplidyne back in service and adjust to 100 to 140 MVARS to bus, in accordance with N1-OP-32."



NINE MILE POINT NUCLEAR STATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Shift Source of Power for PB101 from R1014 to R1011

Revision: NRC 2006

Task Number: 2620020101

Approvals:

General Supervisor
Operations Training (Designee)

1/10/23/2006
Date

NA EXAM SECURITY

General Supervisor
Operations (Designee)

1
Date

NA EXAM SECURITY

Configuration Control

1
Date

Performer: _____ (RO/SRO)

Trainer/Evaluator: _____

Evaluation Method: X Perform _____ Simulate

Evaluation Location: _____ Plant X Simulator

Expected Completion Time: 10 min 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:

Evaluators Signature: _____

Date: _____

[REDACTED]

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

Unit 1 Simulator

Simulator Set-up (if required):

For NRC Exam IC 228 and run with JPM 3
Power for PB101 from R1014

Directions to the Instructor/Evaluator:

Prior to 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.

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, the use of applicable methods of verification and checking are expected. Therefore, either another individual or I will act as the independent verifier or peer checker.

Notes to Instructor / Evaluator:

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

References:

1. N1-OP-30, H.8.0

Tools and Equipment:

1. None

Task Standard: Power for PB101 shifted from R1014 to R1011

Initial Conditions:

1. Electrical Maintenance has a work package to do surveillance work on R1014.
2. Potential Transformers J1017, J1016, and J1015 are racked in.
3. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), shift the source of power for PB101 from R1014 to R1011, IAW N1-OP-30, Section H.8.0.”

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-01/ CNG-HU-1.01-1001)	Sat/Unsat
RECORD START TIME _____		
2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	N1-OP-30 is obtained. Precautions & limitations reviewed & section H.8.0	Sat/Unsat
3. Verify racked in potential transformers.	<input type="checkbox"/> Initials complete, since condition is stated in Initial Conditions	Sat/Unsat
4. Place PB101 SUPPLY BREAKER INTERLOCK BY-PASS SWITCH in BYPASS <i>Annunciator A5-2-1, Power Bd. 101 Bkr. Bypass Switch is received</i>	<input type="checkbox"/> Control switch rotated to the Bypass position.	Pass/Fail
5. Insert Sync key in Breaker R1011.	<input type="checkbox"/> Sync Key inserted into Breaker R1011	Pass/Fail
6. Turn Sync Key on.	<input type="checkbox"/> Key rotated clockwise to the ON position.	Pass/Fail
7. Confirm incoming and running voltage normal.	<input type="checkbox"/> Observe incoming and running voltages matched.	Sat/Unsat
8. Close Breaker R1011.	<input type="checkbox"/> Control switch rotated clockwise to the close position. Red light above switch illuminates, green light above switch extinguishes.	Pass/Fail



Performance Steps	Standard	Grade
-------------------	----------	-------

- | | | |
|---|---|------------------|
| 9. Turn Sync Key off. | <input type="checkbox"/> Sync Key rotated to the off position. | Pass/Fail |
| 10. Remove Sync Key. | <input type="checkbox"/> Sync Key removed from Breaker R1011. | Sat/Unsat |
| 11. Open Breaker R1014. | <input type="checkbox"/> Control switch rotated counter-clockwise to the open position. Green light above switch illuminates, red light above switch extinguishes | Pass/Fail |
| 12. Place PB101 SUPPLY BREAKER INTERLOCK BY-PASS SWITCH in Normal

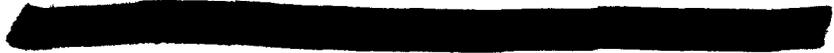
<i>Annunciator A5-2-1, Power Bd. 101 Bkr. Bypass Switch clears</i> | <input type="checkbox"/> Control switch rotated to the Normal position. | Pass/Fail |
| 13. Notify SRO that power is shifted from R1014 to R1011.

Cue: Acknowledge report. | <input type="checkbox"/> Proper communications used. | Sat/Unsat |

END OF JPM

Terminating Cue: Power for PB101 shifted from R1014 to R1011.

RECORD STOP TIME _____



Initial Conditions:

1. Electrical Maintenance has a work package to do surveillance work on R1014.
2. Potential Transformers J1017, J1016, and J1015 are racked in.
3. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), shift the source of power for PB101 from R1014 to R1011, IAW N1-OP-30, Section H.8.0.”

NINE MILE POINT NUCLEAR STATION

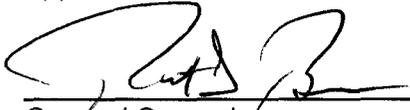
OPERATOR JOB PERFORMANCE MEASURE

Title: Exercising RPV Pressure/Level Column Control Switches

Revision: NRC 2006

Task Number: 2590060101

Approvals:


 General Supervisor _____ Date 10/23/2006
 Operations Training (Designee)

NA EXAM SECURITY _____
 General Supervisor _____ Date _____
 Operations (Designee)

NA EXAM SECURITY _____
 Configuration Control _____ Date _____

Performer: _____(RO/SRO)

Trainer/Evaluator: _____

Evaluation Method: Perform _____ Simulate

Evaluation Location: _____ Plant Simulator

Expected Completion Time: 20 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:

Evaluators Signature: _____

Date: _____

[REDACTED]

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

Unit 1 Simulator

Simulator Set-up (if required):

IC230 is equivalent to IC20. For Exam run with JPM 6

Run bat n06jpm5.bat file to setup triggers listed below.

RR55 trigger from ZDFWMST3==1 (MASTER in BAL). See attached bat file for 2 conditional trigger.

Directions to the Instructor/Evaluator:

Prior to 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.

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, the use of applicable methods of verification and checking are expected. Therefore, either another individual or I will act as the independent verifier or peer checker.

Notes to Instructor / Evaluator:

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

References:

1. N1-PM-Q8, Section 8.13
2. N1-OP-16, Section F.10.0

Tools and Equipment:

1. None

Task Standard: RPV level control established in manual and high level turbine trip and low level scram is avoided.

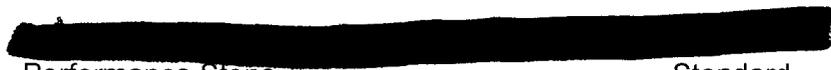
Initial Conditions:

1. Plant is at rated conditions.
2. Feedwater Level Control is in normal automatic three element control
3. Whenever RPV water level is being controlled in manual, the level band is 70 to 75 inches.
4. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), perform N1-PM-Q8 section 8.13 for exercising RPV Pressure/Level Columns and Feedwater Mode Control switches.”

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-01/ CNG-HU-1.01-1001)	Sat/Unsat
RECORD START TIME _____		
2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	N1-PM-Q8, 8.13 and N1-OP-16, F.10.0 are obtained and reviewed.	Sat/Unsat
FROM N1-PM-Q8 8.13		
3. Confirm 29-01, Turbine Driven Feed Water Pump 13 is running	<input type="checkbox"/> Observes FWP 13 is running at F Panel <input type="checkbox"/> FEEDWATER PUMP 13 FLO <input type="checkbox"/> FWP 13 VALVE CONTROL signal <input type="checkbox"/> Red Clutch Engagement lights	Sat/Unsat
5. Record initial control switch positions for: <input type="checkbox"/> Feedwater Level Column 11 or 12 <input type="checkbox"/> Reactor Pressure Column 11 or 12 <input type="checkbox"/> Feedwater Mode 3	<input type="checkbox"/> Record initial control switch positions for (E Console): <input type="checkbox"/> FEEDWATER LEVEL COL as 11 <input type="checkbox"/> REACT PRESS as 11 <input type="checkbox"/> FEEDWATER MODE as 3	Sat/Unsat



Performance Steps	Standard	Grade
5. Perform Section F.10 of N1-OP-16 Steps 10.1 through 10.6	☐ Go to N1-OP-16 Steps 10.1 through 10.6	Sat/Unsat
6. Perform the following:		
☐ IF three Feedwater pumps running.....	☐ Indicates step 10.1.1 is NA, since three pumps are not running.	Sat/Unsat
☐ IF shaft driven FWP in service.....	☐ Verifies and indicates in step 10.1.2	
	☐ Only one motor FWP is running	Sat/Unsat
	☐ Standby FWP 11 VALVE CONTROL is in MAN and fully closed.	Sat/Unsat
Cue: When asked report MFLCPR is 0.872	☐ MFLCPR is less than 1.0	Sat/Unsat
7. Balance the FWP VALVE CONTROL M/A station (13) which is in AUTO by performing the following:	At F panel	
☐ Place respective FWP 13 Pump VALVE CONTROL M/A station mode switch to BAL.	☐ Rotate FWP 13 Pump VALVE CONTROL M/A station mode switch to BAL.	Pass/Fail
☐ Null respective deviation meter to 50% (red dot) with manual knob.	☐ Adjust FWP 13 VALVE CONTROL M/A station manual knob to get needle to 50% (nulled).	Pass/Fail
8. Take manual control of vessel level by placing FWP 13 VALVE CONTROL M/A station mode switch to MAN.	☐ Rotate FWP 13 VALVE CONTROL M/A station mode switch to MAN.	Pass/Fail
9. Control reactor vessel level by adjusting FWP 13 VALVE CONTROL M/A station manual knob as necessary.	☐ Control reactor vessel level by adjusting FWP 13 VALVE CONTROL M/A station manual knob as necessary. No adjustment should be necessary.	Pass/Fail/NA

NOTE:
Switching level columns may result in Annunciator F2-3-3 REACT VESSEL LEVEL HIGH-LOW, due to circuit interruption.



Performance Steps	Standard	Grade
<p>The same channel of level and pressure should be selected.</p>		
<p>10. Shift reactor pressure/level columns or Feedwater modes as necessary.</p> <p>Cue: If asked direct each switch cycled THREE times and restore to original positions.</p>	<ul style="list-style-type: none"> □ This should be the actual exercising of the switches step. □ Cycles switches and returns to original positions. <ul style="list-style-type: none"> □ FEEDWATER LEVEL COL as 11 □ REACT PRESS as 11 □ FEEDWATER MODE as 3 	<p>Pass/Fail/NA</p> <p>Pass/Fail/NA</p> <p>Pass/Fail/NA</p>
<p>11. Maintenance and/or testing can now be conducted on feedwater pressure/level columns or feedwater mode with no effect on level control.</p> <p>NOTE: SM will direct final position of RPV Pressure/Level Control Switches.</p>	<ul style="list-style-type: none"> □ THEN returns to N1-PM-Q8 at step 8.13.3 and initials as complete. 	<p>Sat/Unsat</p>
<p>Cue: If necessary, direct RPV Pressure/Level Control Switches returned to their original positions.</p>		
<p>IF cycled in JPM step 10, THEN skip step 12 and proceed to JPM step 13.</p>		
<p>12. Exercise RPV Pressure/Level Control Switches as follows:</p> <ul style="list-style-type: none"> □ Record final RPV Pressure/Level Control Switch positions <ul style="list-style-type: none"> □ Feedwater Level Column 11 or 12 □ Reactor Pressure Column 11 or 12 □ Cycle Feedwater Mode Control Switch Position <ul style="list-style-type: none"> □ Feedwater Mode 3 	<p>If switches were not cycled in JPM step 10, they are PASS/FAIL critical steps here.</p> <ul style="list-style-type: none"> □ If not cycled in JPM step 10, cycles switches here leaves in column 11 position and records final position. □ If not cycled in JPM step 10, cycles switches here leaves "3" position and records position. 	<p>Sat/Unsat/NA or</p> <p>PASS/FAIL/NA</p> <p>Sat/Unsat/NA or</p> <p>PASS/FAIL/NA</p>

Performance Steps	Standard	Grade
13. Complete N1-OP-16, Section F.10 by performing Step F.10.7.	<input type="checkbox"/> Go to N1-OP-16 and performs 10.7 (all steps). These are listed below in JPM step 14.	
14. WHEN testing is complete return reactor vessel level control to AUTO by performing the following:		
<input type="checkbox"/> Place FEEDWATER MASTER CONTROL M/A station mode to MAN.	<input type="checkbox"/> Rotate FEEDWATER MASTER CONTROL M/A station mode to MAN. (E Console)	Pass/Fail
<input type="checkbox"/> Null out FWP 13 VALVE CONTROL by adjusting the FEEDWATER MASTER CONTROL M/A station output with the manual knob UNTIL the deviation meter indicates 50% (red dot) on FWP 13 VALVE CONTROL GEMAC.	<input type="checkbox"/> Adjust FEEDWATER MASTER CONTROL M/A station (E Console) output with the manual knob UNTIL the deviation meter indicates 50% (red dot) on FWP 13 VALVE CONTROL GEMAC (F Panel).	Sat/Unsat
<input type="checkbox"/> Place FWP 13 VALVE CONTROL M/A station mode to BAL.	<input type="checkbox"/> Rotate FWP 13 VALVE CONTROL M/A station mode to BAL. (F panel... NOT E Console)	Pass/Fail
<input type="checkbox"/> Control reactor vessel level with manual knob at FEEDWATER MASTER LBS/HR controller in MAN mode	<input type="checkbox"/> Control reactor vessel level with manual knob at FEEDWATER MASTER LBS/HR controller in MAN mode (E Console)	Pass/Fail
<input type="checkbox"/> Null FEEDWATER MASTER CONTROL setpoint error by adjusting the thumb/setpoint tape to align manual setpoint (orange arrow) directly under automatic setpoint (green band).	<input type="checkbox"/> Adjust the thumb/setpoint tape to align manual setpoint (orange arrow) directly under automatic setpoint (green band) (E Console)	Sat/Unsat
<input type="checkbox"/> Place FEEDWATER MASTER CONTROL M/A station mode to AUTO or BAL. Level is now controlled automatically by Master Controller.	<input type="checkbox"/> Rotate FEEDWATER MASTER CONTROL M/A station mode to AUTO or BAL (E Console)	Pass/Fail

ALTERNATE PATH

WHEN FEEDWATER MASTER CONTROL M/A station mode is moved to AUTO or BAL, malfunction RR55 Level transmitter



Performance Steps	Standard	Grade
-------------------	----------	-------

FAILS DOWNSCALE activates.

Level Transmitter and indication ID59A goes downscale. Annunciator F2-2-2 REACTOR WATER LEVEL HIGH LOW alarms. Feedwater flow rises and actual level begins to rise.

15. Recognize and report rising water level condition.

16. Enter N1-SOP-16.1

Note: IF ARP F2-2-2 actions are taken, manual control would also be established. This is also an acceptable basis for taking manual control. The SOP is the higher tier document.

WHEN either controller is placed in MAN, an immediate reduction in feedwater flow occurs because the MAN signal is still at the correct signal for the pre-transient condition, since deviation meters were nulled.

☐ Performs one of the following to prevent high level turbine trip and scram:

☐ Place FEEDWATER MASTER CONTROL M/A station mode to MAN. (E Console)

Pass/Fail/NA

OR

☐ Place FWP 13 VALVE CONTROL M/A station mode to MAN. (F Panel).

Pass/Fail/NA

17. Controls RPV water level in MANUAL to prevent high RPV water level trips and low RPV water scram.

☐ Adjusts FEEDWATER MASTER CONTROL, FWP 13 VALVE CONTROL or FWP 12 VALVE CONTROL M/A station mode in MAN to prevent high and low RPV water level trips.

Pass/Fail

18. Notify SRO that Feedwater level Control is in MANUAL and level is stabilized.

Proper communications used.

Sat/Unsat

END OF JPM

Terminating Cue: RPV level control established in manual and high level turbine trip and low level scram is avoided.

RECORD STOP TIME _____

[REDACTED]

^jpm 5 bat file n06jpm5.bat

^to auto trigger the rr55 malfunction to be true when master controller is
^placed back in auto, a double condition must occur.

^first, the master must be placed in MAN (zdfwmst4==1), per the test. When this happens
^the green light on A Panel MOD 93 turns on by override (2a4ds7lo0219)

^^now, with the green light hzlegmodo on when the master is placed in AUTO zdfwmst2 or
BAL zdfwmst3, the rr55 activates failing the transmitter downscale.

^rst 20

trgset 1 "zdfwmst4==1"

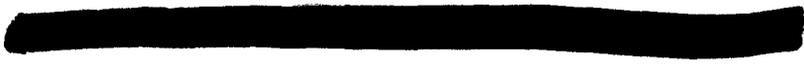
trg 1 "ior 2a4ds7lo0219 (1 0) on"

trgset 2 "zdfwmst3==1 && hzlegmodo(2)==1"

trg 2 "imf rr55 (2 0:02)"

^!! zdfwmst2==1

^end setup



Initial Conditions:

1. Plant is at rated conditions.
2. Feedwater Level Control is in a normal automatic three element control
3. Whenever RPV water level is being controlled in manual, the level band is 70 to 75 inches.
4. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), perform N1-PM-Q8 section 8.13 for exercising RPV Pressure/Level Columns and Feedwater Mode Control switches.”



NINE MILE POINT NUCLEAR STATION
OPERATOR JOB PERFORMANCE MEASURE

Title: Vent the Drywell During Power Operation

Revision: NRC 2006

Task Number: 2239010401

Approvals:


 General Supervisor _____ Date 10/23/2006
 Operations Training (Designee)

NA EXAM SECURITY _____
 General Supervisor _____ Date _____
 Operations (Designee)

NA EXAM SECURITY _____
 Configuration Control _____ Date _____

Performer: _____ (RO/SRO)

Trainer/Evaluator: _____

Evaluation Method: Perform _____ Simulate

Evaluation Location: _____ Plant Simulator

Expected Completion Time: 20 min 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:

Evaluators Signature: _____

Date: _____

[REDACTED]

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

Unit 1 Simulator

Simulator Set-up (if required):

IC20

Directions to the Instructor/Evaluator:

Prior to 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.

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, the use of applicable methods of verification and checking are expected. Therefore, either another individual or I will act as the independent verifier or peer checker.

Notes to Instructor / Evaluator:

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

References:

1. N1-OP-9, H.1.0

Tools and Equipment:

1. None

Task Standard: Drywell vent lineup is established per N1-OP-9.

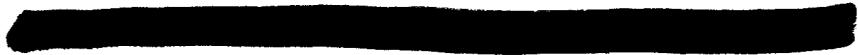
Initial Conditions:

1. Drywell Pressure is 1.75 psig
2. N1-ST-V1, VENTING/PURGING PRIMARY CONTAINMENT THROUGH RESCTOR BUILDING VENTILATION SYSTEM is in progress and being is being performed by another operator.
3. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), Vent the Drywell using RBEVS train 11, in accordance with N1-OP-9. Establish flow rate between 500 and 1600 scfm. Lower Drywell pressure to 1.2 psig.”

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-01/ CNG-HU-1.01-1001)	Sat/Unsat
RECORD START TIME _____		
2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	N1-OP-9 is obtained. Precautions & Limitations reviewed & section H.1.0	Sat/Unsat
3. Perform N1-ST-V1 within 4 hours PRIOR to the start and at least once every 12 hours during venting/purging.	<input type="checkbox"/> Check off step complete. Initial conditions are N1-ST-V1 is complete.	Sat/Unsat
4. Vent the primary containment as follows: Drywell venting, refer to “Drywell Venting” section	<input type="checkbox"/> Proceeds to step 1.3, Drywell Venting	Sat/Unsat
5. Verify in STOP position 201-35 DRYWELL & TORUS VENT & PURGE FAN control switch.	<input type="checkbox"/> 201-35 DRYWELL & TORUS VENT & PURGE FAN control switch in STOP	Sat/Unsat
7. Notify SM to enter LCO 3.4.4 (f) in SM Log Book.	<input type="checkbox"/> Notifies SM of requirement to enter LCO in log book.	Sat/Unsat
CUE: As SM, acknowledge requirements to enter LCO and enter in the log book.		
8. Verify closed the following valves:	<input type="checkbox"/> Closed by observing green position indicating lights	
<input type="checkbox"/> 201-21 DRYWELL & TOR VENT & PURGE FAN INLET BV	<input type="checkbox"/> 201-21 DRYWELL & TOR VENT & PURGE FAN INLET BV	Sat/Unsat



Performance Steps	Standard	Grade
<input type="checkbox"/> 201-22 DRYWELL & TOR VENT & PURGE FAN OUTLET BV	<input type="checkbox"/> 201-22 DRYWELL & TOR VENT & PURGE FAN OUTLET BV	Sat/Unsat
<input type="checkbox"/> 201.2-33 TORUS N2 MAKE-UP & BLEED ISOL VALVE 11	<input type="checkbox"/> 201.2-33 TORUS N2 MAKE-UP & BLEED ISOL VALVE 11	Sat/Unsat
<input type="checkbox"/> 201.2-06 TORUS N2 MAKE-UP & BLEED ISOL VALVE 12	<input type="checkbox"/> 201.2-06 TORUS N2 MAKE-UP & BLEED ISOL VALVE 12	Sat/Unsat
<input type="checkbox"/> 201.2-32 DRYWELL N2 MAKE-UP & BLEED ISOL VALVE 11	<input type="checkbox"/> 201.2-32 DRYWELL N2 MAKE-UP & BLEED ISOL VALVE 11	Sat/Unsat
<input type="checkbox"/> 201.2-03 DRYWELL N2 MAKE-UP & BLEED ISOL VALVE 12	<input type="checkbox"/> 201.2-03 DRYWELL N2 MAKE-UP & BLEED ISOL VALVE 12	Sat/Unsat
<input type="checkbox"/> 201.2-136 P SYS DISCH ROUTE	<input type="checkbox"/> 201.2-136 P SYS DISCH ROUTE	Sat/Unsat
<input type="checkbox"/> 201-11 TORUS VENT TO CONDENSER	<input type="checkbox"/> 201-11 TORUS VENT TO CONDENSER	Sat/Unsat
<i>NOTE: Candidate will likely identify component label in simulator is as "TORUS/DRYWELL...."</i>		
<input type="checkbox"/> 201-47EM VENTILATION TIE BV	<input type="checkbox"/> 201-47EM VENTILATION TIE BV	Sat/Unsat
<input type="checkbox"/> 202-36 EM VENTILATION FROM REACTOR BLDG BV	<input type="checkbox"/> Closes 202-36 EM VENTILATION FROM REACTOR BLDG BV using control switch observes green light on and red light off.	Pass/Fail



Performance Steps	Standard	Grade
<input type="checkbox"/> 201-16 TORUS N2 VENT & PURGE ISOLATION VALVE 11	<input type="checkbox"/> 201-16 TORUS N2 VENT & PURGE ISOLATION VALVE 11	Sat/Unsat
<input type="checkbox"/> 201-17 TORUS N2 VENT & PURGE ISOLATION VALVE 12	<input type="checkbox"/> 201-17 TORUS N2 VENT & PURGE ISOLATION VALVE 12	Sat/Unsat
9. Open 201-18 EM VENTILATION FROM DW & TORUS BV	201-18 EM VENTILATION FROM DW & TORUS BV open using cs	Pass/Fail
10. Open EM VENTILATION LOOP INLET BV of selected system (System 11): <input type="checkbox"/> 202-37 EM VENTILATION LOOP 11 INLET BV	<input type="checkbox"/> 202-37 EM VENTILATION LOOP 11 INLET BV open	Pass/Fail
11. Open 201-32 DW N2 VENT & PURGE ISOLATION VALVE 11	<input type="checkbox"/> 201-32 DW N2 VENT & PURGE ISOLATION VALVE 11 open	Pass/Fail
12. Start EM VENT EXHAUST FAN of selected system (System 11)	<input type="checkbox"/> EM VENT EXHAUST FAN started	Pass/Fail
13. Throttle open 201-31 DW N2 VENT & PURGE ISOLATION VALVE 12, using Pull-to-Stop feature.	<input type="checkbox"/> 201-31 DW N2 VENT & PURGE ISOLATION VALVE 12 throttles open and establishes flow between 500 and 1600 scfm.	Pass/Fail
14. Verify flow rate \leq 1600 CFM	<input type="checkbox"/> 201-31 DW N2 VENT & PURGE ISOLATION VALVE 12 throttled open with <1600 CFM established.	Sat/Unsat
15. WHEN pressure in torus is in the normal range (refer to Att 6), close the following valves: <input type="checkbox"/> 201-32 DW N2 VENT & PURGE ISOLATION VALVE 11 <input type="checkbox"/> 201-31 DW N2 VENT & PURGE ISOLATION VALVE 12	<input type="checkbox"/> When DW pressure is 1.2 psig, closes valves to stop purge: <input type="checkbox"/> 201-32 DW N2 VENT & PURGE ISOLATION VALVE 11 closed <input type="checkbox"/> 201-31 DW N2 VENT & PURGE ISOLATION VALVE 12 closed	Pass/Fail Pass/Fail
16. Stop EM VENT EXHAUST FAN (System 11)	<input type="checkbox"/> EM VENT EXHAUST FAN stopped	Sat/Unsat

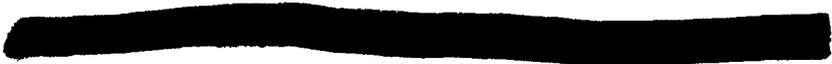


Performance Steps	Standard	Grade
17. WHEN Drywell venting is complete, verify closed the following valves:		
<input type="checkbox"/> 201-18 EM VENTLATION FROM DW & TORUS BV	<input type="checkbox"/> 201-18 EM VENTLATION FROM DW & TORUS BV	Pass/Fail
<input type="checkbox"/> 202-37 EM VENTILATION LOOP 11 INLET BV	<input type="checkbox"/> 202-37 EM VENTILATION LOOP 11 INLET BV	Pass/Fail
<input type="checkbox"/> 202-38 EM VENTILATION LOOP 12 INLET BV	<input type="checkbox"/> 202-38 EM VENTILATION LOOP 12 INLET BV	Pass/Fail
18. Open 202-36 EM VENTILATION FROM REACTOR BUILDING BV	<input type="checkbox"/> 202-36 EM VENTILATION FROM REACTOR BUILDING BV open	Pass/Fail
19. Notify SM to exit LCO 3.4.4 (f) in SM Log Book	<input type="checkbox"/> SM notified to exit LCO	Sat/Unsat
20. Report status to SRO.	<input type="checkbox"/> Reports completion of DW venting to SRO.	Sat/Unsat

END OF JPM

Terminating Cue: Drywell vent lineup is established per N1-OP-9.

RECORD STOP TIME _____



Initial Conditions:

1. Drywell Pressure is 1.75 psig
2. N1-ST-V1, VENTING/PURGING PRIMARY CONTAINMENT THROUGH REACTOR BUILDING VENTILATION SYSTEM is in progress and being is being performed by another operator.
3. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), Vent the Drywell using RBEVS train 11, in accordance with N1-OP-9. Establish flow rate between 500 and 1600 scfm. Lower Drywell pressure to 1.2 psig.”

NINE MILE POINT NUCLEAR STATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Reset RPS and ARI logic After High Drywell Pressure Scram Revision: NRC 2006

Task Number: 2000330401

Approvals:

 10/23/2006
General Supervisor Date
Operations Training (Designee)

NA EXAM SECURITY 1
General Supervisor Date
Operations (Designee)

NA EXAM SECURITY 1
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: 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:

Evaluators Signature: _____

Date: _____

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

Unit 1 Simulator

Simulator Set-up (if required):

IC229. Post scram conditions stabilized
High DWP pressure scram received and DWP is now below 3.0 psig
ARI manually initiated
Ensure Feedpump is operating for level control with low flow valve in auto
SOP-1 should be marked up indicating which actions are completed.
An instructor should be on the floor to monitor level and acknowledge any other alarms

Directions to the Instructor/Evaluator:

Prior to 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.

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:

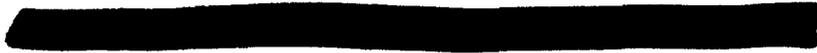
During this Training JPM, the use of applicable methods of verification and checking are expected. Therefore, either another individual or I will act as the independent verifier or peer checker.

Notes to Instructor / Evaluator:

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

References:

1. N1-SOP-1
2. ARP F1



Tools and Equipment:

- 1. None

Task Standard: RPS and ARI logic channels reset and the SDV is draining. All rods settled to position 00.

Initial Conditions:

- 1. Plant scram from full power occurred on high drywell pressure about 20 minutes ago.
2. Three control rods did not insert, so ARI was manually initiated.
3. The three rods did insert.
4. N1-SOP-1 Reactor Scram is being implemented.
5. All immediate actions are complete.
6. Scram confirmation actions are complete.
7. IRM and SRM detectors were just inserted.
8. Recovery actions are in progress and conditions have stabilized.
9. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), Reset the scram and verify all rods at position 00.”

Table with 3 columns: Performance Steps, Standard, Grade. Row 1: Provide repeat back of initiating cue... Standard: Proper communications used for repeat back... Grade: Sat/Unsat. Row 2: Obtain a copy of the reference procedure... Standard: N1-SOP-1 is obtained... Grade: Sat/Unsat. Row 3: (SOP-1) IF ARI initiated, THEN Reset ARI... Standard: At F Panel, reset ARI using pushbutton... Grade: Pass/Fail

When ARI is reset, the following occurs:

- ARI INITIATION CH 11 and CH12 red lights extinguish.
VALVE POSITION SOV113-229A red VENT light extinguishes and

green NORMAL light comes on.

- VALVE POSITION SOV113-229B
*red VENT light extinguishes and
green NORMAL light comes on*

- 4. (SOP-1) IF all rod motion has stopped,
THEN place both SCRAM
DISCHARGE VOLUME HIGH LEVEL
BYPASS switches in BYPASS

- At F Panel, place both key-lock
bypass switches to BYPASS

Pass/Fail

- 5. (SOP-1) IF auto initiated scram signals
have cleared THEN

- Recognizes that high DWP signal is
sealed in and must be reset at M
Panel to reset RPS logic. (ARP F1-1-
5 and F4-1-4)

- Verify at least 1 CRD pump in
service

- Verify one CRD pump running at F
Panel by observing red light.

Sat/Unsat

- Reset Reactor scram AND verify
ALL control rods inserted to
position 04 or beyond by observing
one or more of the following:

- At M panel, reset CONTAINMENT
HIGH PRESSURE A and C AND B
and D Pushbuttons (ARP F1-1-5 and
F4-1-4).

Pass/Fail

- *At M Panel When CONTAINMENT
HIGH PRESSURE A and C are
reset, relay 11K10 resets
(energizes). Annunciator F1-1-5,
RPS CH 11 DRYWELL PRESS
HIGH clears. F1-3-5 RPS CH 11
CONTAINMENT ISOLATION F1-4-5
CONTAINMENT ISOLATION
PURGE VALVES and F1-4-6 RPS
CH 11 CORE SPRAY AUTO
OPERATION also clear.*

- *At M Panel When CONTAINMENT
HIGH PRESSURE B and D are
reset, relay 12K10 resets
(energizes). Annunciator F4-1-4
RPS CH 12 DRYWELL HIGH
PRESS clears. F4-3-4 RPS CH 12
CONTAINMENT Isolation and F4-4-
3 RPS CH 12 CORE SPRAY AUTO
OPERATION also clear.*



Performance Steps	Standard	Grade
-------------------	----------	-------

<ul style="list-style-type: none"> □ When RPS is reset, White Pilot lights on M and F Panels illuminate. All rods indicate 00 position on Full Core Display. 	<ul style="list-style-type: none"> □ At E Console, depress REACTOR TRIP RESET pushbutton □ All rods verified into at least position 04 by observing one or more of the following: 	Pass/Fail
<ul style="list-style-type: none"> □ Full Core Display □ Demand new OD-7 Option 2 □ K104A&B red LED lights lit (1S20 Aux CR) (NOT EXPECTED) □ All Rods In light illuminated (Remote Shutdown Panel) (NOT EXPECTED) 	<ul style="list-style-type: none"> □ Full Core Display (<i>All rods indicate 00 position</i>) □ Demand new OD-7 Option 2 □ K104A&B red LED lights lit (1S20 Aux CR) (NOT EXPECTED) □ All Rods In light illuminated (Remote Shutdown Panel) (NOT EXPECTED) 	Sat/Unsat
<ul style="list-style-type: none"> □ Confirm the following valves open: <ul style="list-style-type: none"> □ 44.2-15 and 44.2-16 CONTROL ROD DRIVE DUMP VOL VENT VALVE □ 44.2-17 and 44.2-18 CONTROL ROD DUMP VOL DRAIN IV □ Confirm F3-2-4 CRD DRAIN-VENT VALVE CLOSED clear. 	<ul style="list-style-type: none"> □ At F Panel observes: <ul style="list-style-type: none"> □ 44.2-15 and 44.2-16 CONTROL ROD DRIVE DUMP VOL VENT VALVE red lights on. □ 44.2-17 and 44.2-18 CONTROL ROD DUMP VOL DRAIN IV red lights on. □ Observes F3-2-4 CRD DRAIN-VENT VALVE CLOSED clear. 	Sat/Unsat Sat/Unsat Sat/Unsat
6. Reports status to SRO.	□ Report complete.	Sat/Unsat

END OF JPM

Terminating Cue: RPS and ARI logic channels reset and the SDV is draining. All rods settled to position 00.

RECORD STOP TIME _____



Initial Conditions:

1. Plant scram from full power occurred on high drywell pressure about 20 minutes ago.
2. Three control rods did not insert, so ARI was manually initiated.
3. The three rods did insert.
4. N1-SOP-1 Reactor Scram is being implemented.
5. All immediate actions are complete.
6. Scram confirmation actions are complete.
7. IRM and SRM detectors were just inserted.
8. Recovery actions are in progress and conditions have stabilized.
9. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), Reset the scram and verify all rods at position 00.”

NINE MILE POINT NUCLEAR STATION
OPERATOR JOB PERFORMANCE MEASURE

Title: MSIV Stroke Test and Limit Switch Test (N1-ST-Q26)

Revision: NRC 2006

Task Number: 2399010201

Approvals:


General Supervisor 10/23/2006
Operations Training (Designee) Date

N/A, NRC EXAM SECURITY /
General Supervisor Date
Operations (Designee)

N/A, NRC EXAM SECURITY /
Configuration Control Date

Performer: _____ (RO/SRO)

Trainer/Evaluator: _____

Evaluation Method: Perform Simulate

Evaluation Location: Plant Simulator

Expected Completion Time: 20 Min. 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:

Evaluators Signature: _____

Date: _____

[REDACTED]

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

Unit 1 Control Room Simulator

Simulator Set-up (if required):

1. Initialize the simulator to IC-20 or equivalent.
2. Take the simulator out of freeze.
3. An instructor may be used on simulator floor, if allowed, to perform as an extra operator, for confirming some indications during valve stroking. Monitoring the valve mimic, as an extra operator is appropriate.

Directions to the Instructor/Evaluator:

Prior to 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.

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, the use of applicable methods of verification and checking are expected. Therefore, either another individual or I will act as the independent verifier or peer checker.

Notes to Instructor / Evaluator:

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

References:

1. NUREG 239001 A4.01 RO 4.2 SRO 4.0
2. NMP Unit One Task Analysis 2399010201, 3.0 (RO)

3. N1-ST-Q26

Tools and Equipment:

None

Task Standard: N1-ST-Q26 completed for MSIV 01-03, Main Steam Isolation Valve 112.

Initial Conditions:

1. Plant is operating at 100% power with no inoperable equipment.
2. All prerequisites for the test are completed.
3. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator's name), test Main Steam Line Isolation Valve 112 & 121 in accordance with N1-ST-Q26, Section 8.2 & 8.3.”

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	
RECORD START TIME _____			
2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	<input type="checkbox"/> N1-ST-Q26 obtained and applicable sections reviewed.	Sat/Unsat	
3. Prepare to initiate a half scram on CHANNEL 11.	<input type="checkbox"/> Verify no RPS Half Scram exists <input type="checkbox"/> Notify the CSO that the following steps will initiate the half scram on RPS CH 11	<input type="checkbox"/> Verify by all scram solenoid lights energized <input type="checkbox"/> Proper communications used.	Pass/Fail Sat/Unsat
4. Place Main Steam Isolation Valve 7% Test Switch to the 112 position.	<input type="checkbox"/> Test switch is rotated to the 112 position.	Pass/Fail	
•5. Confirm 01-03 MSIV 112 white test light ON.	<input type="checkbox"/> White test light for MSIV 112 is verified energized.	Sat/Unsat	
•6. Confirm 01-03 MSIV 112 yellow test light OFF.	<input type="checkbox"/> Yellow light is extinguished for MSIV 112.	Sat/Unsat	

NOTE to Evaluator:

JPM steps 7 to 14 will occur in rapid sequence. An instructor may perform as an extra operator as necessary for verifications.

7.	Momentarily place control switch for MSIV 112 to CLOSE position.	<input type="checkbox"/> Rotate switch for MSIV 112 momentarily to CLOSE then release.	Pass/Fail
•8.	Check RPS Channel 11 half scram indications as follows: <input type="checkbox"/> CH 11 SCRAM SOLENOID GROUPS 1,2,3,4 White Light OFF. <input type="checkbox"/> CH 11 B.U. SCRAM S.D.V. VENT AND DRAIN VALVE Light OFF <input type="checkbox"/> Annunciator F1-1-7, RPS CH 11 MNSM LINE II ISOL Valve CLOSED, alarms. <input type="checkbox"/> Annunciator F1-2-1, RPS CH 11 AUTO REACTOR TRIP, alarms.	<input type="checkbox"/> Verify the following: <input type="checkbox"/> CH 11 SCRAM SOLENOID GROUPS 1,2,3,4 White Light OFF. <input type="checkbox"/> CH 11 B.U. SCRAM S.D.V. VENT AND DRAIN VALVE Light OFF <input type="checkbox"/> Annunciator F1-1-7, RPS CH 11 MNSM LINE II ISOL Valve CLOSED, alarms. <input type="checkbox"/> Annunciator F1-2-1, RPS CH 11 AUTO REACTOR TRIP, alarms.	Sat/Unsat
9.	Confirm 01-03, MSIV-112 automatic partial closure indications as follows: <input type="checkbox"/> 01-03 MSIV-112 Green Light ON <input type="checkbox"/> 01-03 MSIV-112 Red Light ON <input type="checkbox"/> 01-03 MSIV-112 Mimic Light ON	<input type="checkbox"/> Verify the following: <input type="checkbox"/> 01-03 MSIV-112 Green Light ON <input type="checkbox"/> 01-03 MSIV-112 Red Light ON <input type="checkbox"/> 01-03 MSIV-112 Mimic Light ON	Sat/Unsat
10.	Confirm after approximately 20 seconds Yellow light for MSIV 112 is brightly illuminated.	Yellow light for MSIV is verified BRIGHT.	Sat/Unsat
11.	Confirm 01-03 MSIV-112 automatic opening indications as follows: <input type="checkbox"/> 01-03 MSIV-112 Green Light OFF <input type="checkbox"/> 01-03 MSIV-112 Red Light ON <input type="checkbox"/> 01-03 MSIV-112 Mimic Light OFF	Verify the following: <input type="checkbox"/> 01-03 MSIV-112 Green Light OFF <input type="checkbox"/> 01-03 MSIV-112 Red Light ON <input type="checkbox"/> 01-03 MSIV-112 Mimic Light OFF	
12.	Place MSIV 7% Test Switch to the OFF position.	<input type="checkbox"/> Rotate Test Switch to OFF.	Pass/Fail
13.	Confirm 01-03 MSIV 112 White Test Light OFF.	<input type="checkbox"/> Observe White Test Light for MSIV-112 is OFF.	Sat/Unsat
14.	Confirm 01-03 MSIV 112 Yellow Light OFF.	<input type="checkbox"/> Observe Yellow Light for MSIV-112 is OFF.	Sat/Unsat
15.	Depress REACTOR TRIP RESET at Panel E.	<input type="checkbox"/> Depress Rx Trip RESET Button on E-console.	Sat/Unsat



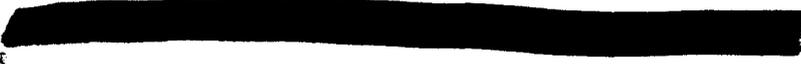
Performance Steps	Standard	Grade
<p>16. Check RPS Channel 11 Half-Scram is CLEARED:</p> <ul style="list-style-type: none"> <input type="checkbox"/> CHANNEL 11 SCRAM SOLENOID Groups 1,2,3,4 White Light ON. <input type="checkbox"/> CHANNEL 11 BACKUP SCRAM VALVE Red Light ON. <input type="checkbox"/> Annunciator F1-1-7, RPS CH 11 MN STM LINE 11 ISOL VALVE CLOSED, Clear <input type="checkbox"/> Annunciator F1-2-1, RPS CH 11 AUTO REACTOR TRIP, Clear 	<p>Verify the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> CHANNEL 11 SCRAM SOLENOID Groups 1,2,3,4 White Light ON. <input type="checkbox"/> CHANNEL 11 BACKUP SCRAM VALVE Red Light ON. <input type="checkbox"/> Annunciator F1-1-7, RPS CH 11 MN STM LINE 11 ISOL VALVE CLOSED, Clear <input type="checkbox"/> Annunciator F1-2-1, RPS CH 11 AUTO REACTOR TRIP, Clear 	
<p>17. Condition Monitoring Group confirm all scram pilot valve solenoids are energized by thermography.</p> <p>Cue: As Condition Monitoring Group, report all scram solenoids have been confirmed to be energized by thermography.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Contact Condition Monitoring Group for confirmation that all scram pilot valve solenoids are energized by thermography. 	Sat/Unsat
<p>18. Prepare to initiate a half scram on CHANNEL 12.</p> <ul style="list-style-type: none"> • Verify no RPS Half Scram exists • Notify the CSO that the following steps will initiate the half scram on RPS CH 12. 	<ul style="list-style-type: none"> <input type="checkbox"/> Verify by all scram solenoid lights energized <input type="checkbox"/> Proper communications used. 	Pass/Fail Sat/Unsat
<p>19. Place Main Steam Isolation Valve 7% Test Switch to the 121 position.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Test switch is rotated to the 121 position. 	Pass/Fail
<p>20. Confirm 01-02 MSIV 121 white test light ON.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> White test light for MSIV 121 is verified energized. 	Sat/Unsat
<p>21. Momentarily place 01-02 MSIV-121 control switch to CLOSE position.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Rotate switch for MSIV 121 momentarily to CLOSE then release. 	Pass/Fail

Performance Steps	Standard	Grade
<ul style="list-style-type: none"> •22. Check RPS Channel 12 half scram indications as follows: <ul style="list-style-type: none"> □ CH 12 SCRAM SOLENOID GROUPS 1,2,3,4 White Light OFF. □ CH 12 B.U. SCRAM S.D.V. VENT AND DRAIN VALVE Light OFF □ Annunciator F4-1-2, RPS CH 12 MNSM LINE I2 ISOL Valve CLOSED, alarms. □ Annunciator F4-2-8, RPS CH 12 AUTO REACTOR TRIP, alarms. 	<ul style="list-style-type: none"> □ Verify the following: <ul style="list-style-type: none"> □ CH 12 SCRAM SOLENOID GROUPS 1,2,3,4 White Light OFF. □ CH 12 B.U. SCRAM S.D.V. VENT AND DRAIN VALVE Light OFF □ Annunciator F4-1-2, RPS CH 12 MNSM LINE I2 ISOL Valve CLOSED, alarms. □ Annunciator F4-2-8, RPS CH 12 AUTO REACTOR TRIP, alarms. 	Sat/Unsat
<ul style="list-style-type: none"> 23. Confirm 01-02, MSIV-121 automatic partial closure indications as follows: <ul style="list-style-type: none"> □ 01-02 MSIV-121 Green Light ON □ 01-02 MSIV-121 Red Light ON □ 01-02 MSIV-121 Mimic Light ON 	<ul style="list-style-type: none"> □ Verify the following: <ul style="list-style-type: none"> □ 01-02 MSIV-121 Green Light ON □ 01-02 MSIV-121 Red Light ON □ 01-02 MSIV-121 Mimic Light ON 	Sat/Unsat
<ul style="list-style-type: none"> 24. Place MAIN STEAM ISOLATION VALVE 7% TEST switch to OFF position. 	<ul style="list-style-type: none"> □ Test switch is rotated to the OFF position 	Pass/Fail
<ul style="list-style-type: none"> 25. Confirm 01-02 MSIV 121 White Test Light OFF. 	<ul style="list-style-type: none"> □ White Test Light for MSIV-121 is OFF. 	Sat/Unsat
<ul style="list-style-type: none"> 26. Depress REACTOR TRIP RESET at Panel E. 	<ul style="list-style-type: none"> □ Depress REACTOR TRIP RESET Button on E-console. 	Pass/Fail
<ul style="list-style-type: none"> 27. Check RPS Channel 12 half scram are cleared: <ul style="list-style-type: none"> □ CH 12 SCRAM SOLENOID GROUPS 1,2,3,4 White Light ON. □ CH 12 B.U. SCRAM S.D.V. VENT AND DRAIN VALVE Light ON □ Annunciator F4-1-2, RPS CH 12 MNSM LINE I2 ISOL Valve CLOSED, clear. □ Annunciator F4-2-8, RPS CH 12 AUTO REACTOR TRIP, clear. 	<ul style="list-style-type: none"> □ Verify the following: <ul style="list-style-type: none"> □ CH 12 SCRAM SOLENOID GROUPS 1,2,3,4 White Light ON. □ CH 12 B.U. SCRAM S.D.V. VENT AND DRAIN VALVE Light ON □ Annunciator F4-1-2, RPS CH 12 MNSM LINE I2 ISOL Valve CLOSED, clear. □ Annunciator F4-2-8, RPS CH 12 AUTO REACTOR TRIP, clear. 	Sat/Unsat
<ul style="list-style-type: none"> 28. Notifies SRO of status. 	<ul style="list-style-type: none"> Proper communication used 	Sat/Unsat

END OF JPM

Terminating Cue: N1-ST-Q26 completed for MSIV 01-03 & MSIV 01-02

RECORD STOP TIME _____



Initial Conditions:

1. Plant is operating at 100% power with no inoperable equipment.
2. All prerequisites for the test are completed.
3. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), test Main Steam Line Isolation Valve 112 & 121 in accordance with N1-ST-Q26, Section 8.2 & 8.3.”

NINE MILE POINT NUCLEAR STATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Lineup for RPV Injection using the Liquid Poison Test Tank

Revision: NRC 2006

Task Number: 2009180504

Approvals:


General Supervisor Date 10/23/2006
Operations Training (Designee)

NA EXAM SECURITY /
General Supervisor Date
Operations (Designee)

NA EXAM 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: 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:

Evaluators Signature: _____

Date: _____

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

Reactor Building (RB Elec. 298') LP System pumps

Simulator Set-up (if required):

NA

Directions to the Instructor/Evaluator:

Prior to 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.

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, the use of applicable methods of verification and checking are expected. Therefore, either another individual or I will act as the independent verifier or peer checker.

Notes to Instructor / Evaluator:

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

References:

1. N1-EOP-1 Attachment 12
2. NUREG 1123, 295031, EA1.08, 3.8/3.9

Tools and Equipment:

1. None

Task Standard: The Liquid Poison System is lined up for RPV injection utilizing the test tank.

Initial Conditions:

1. EOP-2 has been entered.
2. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), lineup the Liquid Poison System for RPV injection from the Test Tank in accordance with N1-EOP-1, Attachment 12.”

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-01/ CNG-HU-1.01-1001)	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"/> N1-EOP-1 Attachment 12 is obtained and referenced.	Sat/Unsat
--	---	-----------

NOTE: VA-1 key (standard operations issued key) is required to unlock manual system valves.

3. Unlock and close 41-05. BV-LIQUID POISON TANK OUTLET.	<input type="checkbox"/> 41-05 unlocked and shut (fully clockwise). Located in RB Elec 298'.	Pass/Fail
--	--	------------------

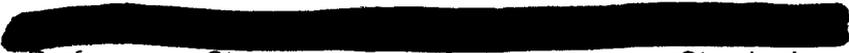
Cue: 41-05 is shut.

4. Open 41-03, BV DEMIN WATER TO LP TEST TANK and fill test tank with Demin Water.	<input type="checkbox"/> The test tank is approximately full and 41-03 is shut (full clockwise).	Pass/Fail
--	--	------------------

Cue: Test Tank is full.

5. Unlock and open the following valves: <ul style="list-style-type: none">• 41-06, BV-LP PUMP 11 SUCTION FROM TEST TANK• 41-18, BV-LP PUMP 12 SUCTION FROM TEST TANK	<input type="checkbox"/> 41-06 and 41-18 unlocked and opened (fully counterclockwise).	Pass/Fail
--	--	------------------

Cue: 41-06 and 41-18 open.



Performance Steps	Standard	Grade
-------------------	----------	-------

6. Control Room informed that LP is lined up for RPV injection using test tank.	<input type="checkbox"/> Control Room notified.	Sat/Unsat
---	---	-----------

Cue: Role play for communication, notify Operator that LP pump 12 has been started.

7. Throttle 41-03, BV DEMIN WATER TO LP TEST TANK to maintain tank approximately 1/2 full.	<input type="checkbox"/> Test tank level maintained at approximately 1/2 full by throttling 41-03.	Pass/Fail
--	--	------------------

Cue: Test Tank level lowered and is now being maintained about 1/2 full.

8. Notify SRO of status.	<input type="checkbox"/> SRO notified of status.	Sat/Unsat
--------------------------	--	-----------

END OF JPM

Terminating Cue: Liquid poison system is lined up for injection to the RPV utilizing the test tank.

RECORD STOP TIME _____



Initial Conditions:

1. EOP-2 has been entered.
2. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), lineup the Liquid Poison System for RPV injection from the Test Tank, in accordance with N1-EOP-1, Attachment 12.”

NINE MILE POINT NUCLEAR STATION
OPERATOR JOB PERFORMANCE MEASURE

Title: Transfer UPS Loads from UPS162A to 162B (Alternate Path) Revision: NRC 2006

Task Number: 2620140101

Approvals:



General Supervisor Date 1/10/23/2006
Operations Training (Designee)

NA EXAM SECURITY /
General Supervisor Date
Operations (Designee)

NA EXAM SECURITY /
Configuration Control Date

Performer: _____ (RO/SRO)

Trainer/Evaluator: _____

Evaluation Method: _____ Perform X Simulate

Evaluation Location: X 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:

Evaluators Signature: _____ Date: _____

[REDACTED]

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

TB 261' between DG Room and Aux Control Room

Simulator Set-up (if required):

None

Directions to the Instructor/Evaluator:

Prior to 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.

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, the use of applicable methods of verification and checking are expected. Therefore, either another individual or I will act as the independent verifier or peer checker.

Notes to Instructor / Evaluator:

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

References:

1. NUREG 1123, 212000, A2.02, RO 3.7, SRO 3.9
2. N1-OP-40, Reactor Protection and ATWS Systems
3. N1-SOP-40.1 – LOSS OF RPS

Tools and Equipment:

1. None

Task Standard: RPS Bus Transferred from UPS 162A to UPS 162B.

Initial Conditions:

1. Plant at 100% power
2. UPS 162A in service supplying RPS Bus 11
3. UPS 162B in standby
4. Instructor to ask operator for any questions

Initiating Cues:

"(Operator's name), transfer RPS Bus 11 from UPS 162A to UPS 162B per N1-OP-40."

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-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"/> N1-OP-40 obtained. Precautions & limitations reviewed & section F.1.0 referenced.	Sat/Unsat
3. Notify Control Room that RPS Bus 11 will be transferred from UPS 162A to UPS 162B	<input type="checkbox"/> Proper communications used for repeat back per GAP-OPS-01/Ops Manual.	Sat/Unsat
Note: UPS 162 is on RB 250		
4. At UPS 162B, verify UPS 162B in standby by observing the following:		
• Rectifier Output (A404) approximately 40 amps	<input type="checkbox"/> Rectifier Output on Rectifier Bay 1 reading 40 amps	Sat/Unsat
• Battery DC Input (A1) 0 amps	<input type="checkbox"/> Battery DC input on Inverter Bay 2 reading 0 amp.	Sat/Unsat
• Inverter Voltage (V2) \geq 120 VAC	<input type="checkbox"/> Inverter output on Inverter Bay 3 reads 120 VAC.	Sat/Unsat
• Static Switch Output (V202) \geq 120 VAC	<input type="checkbox"/> Static Switch Output on Static Bay 4 reads 120 VAC.	Sat/Unsat
Cue: A404 = 40 amps, A1 = 0 amps V2 = 120 VAC, V202 = 120 VAC		
5. Place in ON position, Synchroscope Control (S701) and verify the following: UPS A Volts (To Synchroscope) approximately 120 VAC. UPS B Volts (To Synchroscope) approximately 120 VAC	<input type="checkbox"/> On Manual Transfer Switch Cab., place Synchroscope Control toggle switch in ON. <input type="checkbox"/> Observe UPS A Volts to left of synch switch 120-122 VAC. <input type="checkbox"/> Observe UPS B Volts to right of synch switch as 120-124 VAC	Pass/Fail Sat/Unsat Sat/Unsat



Performance Steps	Standard	Grade
-------------------	----------	-------

Cue: UPS A Volts = 120 VAC,
UPS B Volts = 120 VAC

Note: There is not expected to be a frequency or phase difference between UPS A and UPS B. Therefore, the operator should expect the synchroscope to be at the 12 o'clock position.

- | | | |
|--|---|-----------|
| 6. Verify synchroscope on Manual Transfer Switch Cab. Rotating slowly in the FAST direction, or is at the 12 o'clock position. | <input type="checkbox"/> Observe synchroscope on Manual Transfer Switch Cab. Rotating slowly in the FAST (clockwise) direction, or is at the 12 o'clock position. | Sat/Unsat |
|--|---|-----------|

Cue: Sync Scope is at the 12 o'clock position

- | | | |
|--|---|-----------|
| 7. When needle of synchroscope is within 10 degrees of 12 o'clock position, then place Manual Transfer Switch (S702) to the UPS B Supplying Load position. | <input type="checkbox"/> Observe synchroscope at/within 10 degrees before 12 o'clock position and firmly rotate switch counterclockwise to the UPS B supplying Load protection. | Pass/Fail |
|--|---|-----------|

Note: Operation of the manual transfer switch is a two handed operation

- | | | |
|---|--|-----------|
| 8. Confirm load transfer on the Manual Transfer Switch Cab. By observing the following. | At the Manual Transfer Switch Cab. observes the following | |
| <ul style="list-style-type: none"> • UPS A Supplying Load Light OFF | <input type="checkbox"/> Observe UPS A Supply Load Light extinguished. | Sat/Unsat |

AND/OR

- | | | |
|---|--|-----------|
| <ul style="list-style-type: none"> • UPS 162A Static Switch Output (A202) 0 amps | <input type="checkbox"/> On Static Switch Bay 4 for UPS, Observe Static Switch Output ammeter for UPS 162A at 0 amps | Sat/Unsat |
|---|--|-----------|

CUE: UPS A Supply Light is extinguished, A202 on UPS 162A = 0 amps

- | | | |
|---|---|-----------|
| <ul style="list-style-type: none"> • UPS B Supplying Load Light ON | <input type="checkbox"/> Observe UPS B Supply Load Light extinguished. | Sat/Unsat |
| | <input type="checkbox"/> Observe Static Switch Output ammeter for UPS 162B at 0 amps. | Sat/Unsat |

AND/OR

Performance Steps	Standard	Grade
<p>• UPS 162B Static Switch Output (A202) approximately 80-90 amps</p> <p>Cue: UPS B Supplying Light extinguished, A202 on UPS 162B = 0 amps</p>		Sat/Unsat
<p>9. Verify no unanticipated annunciators or computer points present due to UPS 162B supply power.</p>	<p>☐ Recognize unexpected condition and contact the Control Room to inquire about any unexpected alarms or computer points received during transfer to UPS 162B supplying power.</p>	Sat/Unsat
<p>Cue: Multiple unexpected alarms received in the control room. There is a ½ SCRAM on channel 11, execute N1-SOP-40.1.</p>		
<p>10. Determine that RPS 11 was lost.</p>	<p>☐ Proceed to the correct step in N1-SOP-40.1.</p>	Pass/Fail
<p>11. Contact the Control Room and determine if Computer Point G183 (UPS 162 Prot Relay Oper-TRBL) is in alarm.</p>	<p>☐ Proper communication used.</p>	Sat/Unsat
<p>Cue: Computer Point G183 (UPS 162 Prot Relay Oper-TRBL) is in alarm.</p>		
<p>12. Verify I&C Bus 130A is available to carry RPS Loads.</p>	<p>☐ Proper communication used.</p>	Sat/Unsat
<p>Cue: I&C Bus 130A is available to carry RPS loads.</p>		
<p>13. Notify the CSO that dead bus transfer is to be performed.</p>	<p>☐ Proper communication used.</p>	Sat/Unsat
<p>14. Review list of affected systems in N1-SOP-40.1, Loss of RPS Bus, for the RPS channel to be de-energized.</p>	<p>☐ Reviewed N1-SOP-40.1</p>	Sat/Unsat
<p>Cue: The list of affected systems has been reviewed</p>		
<p>15. Review Attachment 6 AND current plant conditions for possible Technical Specification impact</p>	<p>☐ Contact Control Room to ensure N1-SOP-40.1 Attachment 6 has been reviewed for Technical Specification impact.</p>	Sat/Unsat
<p>Cue: Attachment 6 and all Technical Specification impacts have been reviewed.</p>		



Performance Steps	Standard	Grade
16. Confirm NO ½ scram signals are present OR anticipated due to testing on the opposite RPS Bus AND notify the CSO that performance of the following step will initiate a ½ scram	<input type="checkbox"/> Contact Control Room and notify the CSO that you are transferring RPS Bus #11 to I&C Bus 130A	Sat/Unsat
17. Open R.P.S. BUS #11 NORMAL SUPPLY FROM UPS 162	<input type="checkbox"/> Open R.P.S. BUS #11 NORMAL SUPPLY FROM UPS 162	Pass/Fail
18. Close R.P.S. BUS #11 MAINTENANCE SUPPLY FROM I&C BUS 130A	<input type="checkbox"/> Close R.P.S. BUS #11 MAINTENANCE SUPPLY FROM I&C BUS 130A	Pass/Fail
Cue: All other actions will be performed by another operator.		
19. Report status to SRO	<input type="checkbox"/> SRO notified of status.	Sat/Unsat

END OF JPM

Terminating Cue: Transfer of RPS Bus 11 from UPS 162 to I & C Bus 130A is complete.
RECORD STOP TIME _____



Initial Conditions:

1. Plant at 100% power
2. UPS 162A in service supplying RPS Bus 11
3. UPS 162B in standby
4. Instructor to ask operator for any questions.

Initiating Cues:

“(Operator’s name), transfer RPS Bus 11 from UPS 162A to UPS 162B per N1-OP-40.”

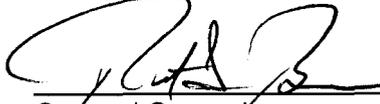
NINE MILE POINT NUCLEAR STATION
OPERATOR JOB PERFORMANCE MEASURE

Title: Take Manual Control of 12 Feedwater FCV Locally

Revision: NRC 2006

Task Number: 2009090504

Approvals:



General Supervisor Date
Operations Training (Designee)

10/23/2006

NA EXAM SECURITY /

General Supervisor Date
Operations (Designee)

NA EXAM 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:

Evaluators Signature: _____

Date: _____

[REDACTED]

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

Turbine Building (TB Elev. 291')

Simulator Set-up (if required):

None

Directions to the Instructor/Evaluator:

Prior to 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.

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, the use of applicable methods of verification and checking are expected. Therefore, either another individual or I will act as the independent verifier or peer checker.

Notes to Instructor / Evaluator:

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

References:

1. N1-OP-16, H.2.0

Tools and Equipment:

None Required

Task Standard:

Feedwater FCV 12 placed in local manual control.

Initial Conditions:

1. Instrument air to FW FCV 12 has been lost.
2. FWP 12 is running, with its valve control M/A Station in manual.
3. RP has recently surveyed the area and you are cleared to access all valves.
4. Instructor to ask: "Are there any questions?"

Initiating cues:

"(Operator's name), place #12 FW FCV in local manual control in accordance with N1-OP-16.

<u>Performance Steps</u>	<u>Standard</u>	<u>Grade</u>
1. Provides 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"/> N1-OP-16 obtained. Precautions & limitations reviewed and section H.2.0 referenced.	Sat/Unsat
3. Establish communication with Control Room.	<input type="checkbox"/> Communications established with Control Room.	Sat/Unsat
Cue: Role play as Control Room with communications established. As CSO, direct operator to take local manual control of #12 Flow Control Valve.		
4. Align upper hole in manual control collar to hole in feedwater flow control valve stem by rotating manual control handwheel.	<input type="checkbox"/> Handwheel rotated and holes aligned on FW-12-FCV.	Pass/Fail
Cue: Holes are aligned.		
5. Insert control pin into manual control collar hole.	<input type="checkbox"/> Pin is inserted into control collar.	Pass/Fail
6. Close the operator air supply valve (1/2" valve). (113-1798, BV - IA to FW FCV 12)	<input type="checkbox"/> Recognize that a ladder is required.	Sat/Unsat
	<input type="checkbox"/> Handwheel rotated fully CW to close.	Pass/Fail
7. Uncap and open operator top and bottom piston vents. (29-234, 29-236) (29-234, Vent - IA to FW FCV 12 over piston and 29-36, Vent - IA to FW FCV	<input type="checkbox"/> Handwheels rotated fully CCW to open.	Pass/Fail

[REDACTED]
Performance Steps

Standard

Grade

12 under piston)

8. Notify CSO of status.

CSO notified.

Sat/Unsat

Cue: Acknowledge report the task is complete.

END OF JPM

Terminating Cue: FCV 12 is in local manual control

RECORD STOP TIME _____

Initial Conditions:

1. Inst. air to #12 FW FCV has been lost.
2. #12 FWP is running, with its valve control M/A Station in manual.
3. RP has recently surveyed the area and you are cleared to access all valves.
4. Instructor to ask: "Are there any questions?"

Initiating cues:

"(Operator's name), place #12 FW FCV in local manual control in accordance with N1-OP-16.