NIAGARA MOHAWK POWER CORPORATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Manual Initiation of the Control Building Special Filter Train Revision: 0

Task Number: 28800201012

Approvals:

1/2/00
General Supervisor Date
Operations Training (Designee)

1-1-00
General Supervisor Date
Operations (Designee)

NA NRC EXAM
Configuration Control Date

Performer:_____(RO/SRO/AO)

Trainer/Evaluator:_____

Evaluation Method: X Perform _____Simulate

Evaluation Location: _____Plant X 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:_____

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

Simulator

Simulator Set-up (if required):

A Non-LOCA or Control Room High-Radiation condition with electrical power available.

Directions to the Instructor/Evaluator:

Prior to performance of this JPM, obtain SSS / 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 SSS / CSO permission.

Directions to Operators:

Read Before Every JPM Performance:

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

Read Before Each Evaluated JPM Performance:

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

Read Before Each Training JPM Performance:

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

Notes to Instructor / Evaluator:

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

References:

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

Tools and Equipment:

None

Task Standard: Control Building special Filter Train A or B operating with the following indications on 2HVC*PNLCH7A(B):

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

Radiation Protection Notified to periodically monitor Control Room Atmosphere

Initial Conditions:

1. Seven (7) days ago, one trip system for the Control Room Ventilation Radiation Monitors (T.S. Table 3.3.7.1-1, Function 1) was declared inoperable because both channels in the trip system were inoperable (T.S. 3.3.7.1.b, Action 74b). Because both channels in the trip system continue to be inoperable, it is necessary to ensure operation of the Control Room Emergency Filtration System in the filtration mode.
2. Ask the candidate if they have any questions.

Initiating Cues:

"(Operator's name), manually initiate the "A" Control Building Special Filter Train in the filtration mode per N2-OP-53A, Section H.6.0."

Performance Steps	Standard	Grade	Comments
1. Provide repeat back of initiating cue. *Evaluator Acknowledge repeat back providing correction if necessary.*	Proper communications used for repeat back (GAP-OPS-O1/Operations Manual).	Sat/Unsat	
RECIRD START TIME _____			
•2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	N2-OP-53A obtained. Precautions & limitations reviewed & section H.6.0 referenced.	Sat/Unsat	
•3. Close HVC*MOV1A, CONTROL ROOM AC FLT TRAIN BYP VLV at 2CEC*PNL870.	Control Switch for HVC*MOV1A placed in CLOSE and valve indicates CLOSED.	**Pass/Fail**	

•4.	Close HVC*MOV1B, CONTROL ROOM AC FLT TRAIN BYP VLV at 2CEC*PNL871	Control Switch for HVC*MOV1B placed in CLOSE and valve indicates CLOSED.	**Pass/Fail**	
5.	Start HVC*FN2A, CONTROL ROOM AC BOOSTER FAN at 2CEC*PNL870.	Places and holds Control Switch for HVC*FN2A in START until fan starts then returns the switch to NORMAL-AFTER START.	**Pass/Fail**	
6.	Verifies 2HVC*FR10A FILTER TRAIN HVC*FLT2A INLET AIR FLOW indicates approximately 63% of full scale.	Verifies 2HVC*FR10A FILTER TRAIN HVC*FLT2A INLET AIR FLOW (red pen) indicates approximately 63% of full scale.	Sat/Unsat	
7.	Verifies Control Room/ Atmosphere, D/P is $\geq$ +0.125 in WG using 2HVC-PDI147, located behind 2CEC-PNL849. **Cue: When operator walks behind Fire Panel P849 provide cue that PDI147 indicates +0.2 inches WG.**	Verifies Control Room/ Atmosphere, D/P is $\geq$ +0.125 in.	Sat/Unsat	

8. Verifies the following indications on 2HVC*PNLCH7A: • ON INDICATOR red light ON • LOW AIRFLOW INDICATOR green light OFF • OVERTEMPERATURE INDICATOR green light OFF **Cue: Auxiliary Operator Reports:** • **ON INDICATOR red light ON** • **LOW AIRFLOW INDICATOR green light OFF** • **OVERTEMPERATURE INDICATOR green light OFF**	Dispatches Auxiliary Operator to verify the following indications on 2HVC*PNLCH7A, locally: • ON INDICATOR red light ON • LOW AIRFLOW INDICATOR green light OFF • OVERTEMPERATURE INDICATOR green light OFF	Sat/Unsat	
9. Notifies Radiation Protection to periodically sample the Control Room Atmosphere. (Simulate)	Radiation Protection notified to periodically sample the Control Room Atmosphere.	Sat/Unsat	
10. Notifies CRS/SSS that the Control Building Special Filter Train "A" is manually initiated.	CRS/SSS notified that the Control Building Special Filter Train "A" is manually initiated.	Sat/Unsat	

Terminating Cue: Building Special Filter Train "A" initiated and SSS informed.

RECORD STOP TIME _____

Initial Conditions:

1. Seven (7) days ago, one trip system for the Control Room Ventilation Radiation Monitors (T.S. Table 3.3.7.1-1, Function 1) was declared inoperable because both channels in the trip system were inoperable (T.S. 3.3.7.1.b, Action 74b). Because both channels in the trip system continue to be inoperable, it is necessary to ensure operation of the Control Room Emergency Filtration System in the filtration mode.
2. Ask the candidate if they have any questions.

Initiating Cues:

"(Operator's name), manually initiate the "A" Control Building Special Filter Train in the filtration mode per N2-OP-53A, Section H.6.0."

NIAGARA MOHAWK POWER CORPORATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Start and Load Division I Diesel (Faulted) Revision: 0

Task Number: 2649030101

Approvals:

12/3/00
General Supervisor Operations Training (Designee) Date

per telecon 12/3/00
General Supervisor Operations (Designee) w/ Matt Waldecker Date

/
Configuration Control Date

Performer:_____(RO/SRO/AO)

Trainer/Evaluator:_____

Evaluation Method: X Perform _____Simulate

Evaluation Location: _____Plant X Simulator

Expected Completion Time: 30 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:_____

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

Simulator

Simulator Set-up (if required):

1. Division I EDG in Standby
2. Override 2SWP*MOV66A Control Switch Closed (P851-1-2SWPPA18-A) on F3 (or other available key)
3. Remote CW24, Loss of Power to 2SWP*MOV66A on F3, active after 35 seconds.
4. Malfunction DG02A on F6

Directions to the Instructor/Evaluator:

Prior to performance of this JPM, obtain SSS / 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 SSS / CSO permission.

Directions to Operators:

Read Before Every JPM Performance:

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

Read Before Each Evaluated JPM Performance:

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

Read Before Each Training JPM Performance:

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

Notes to Instructor / Evaluator:

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

References:

1. N2-OP-100A, Rev. 7, "Standby Diesels", Sec. F.4.0, H.1.0
2. NMP2 TIF: 3.61
3. NUREG K/A: 264000 A4.04 (3.7/3.7)
4. GAP-OPS-01, Sect. 3.6
5. ARP-01 852126, Service Water Low Flow

Tools and Equipment:

1. Synch Key

Task Standard: The Division I Diesel Generator is to be started and paralleled with offsite electric power. The engine will be shutdown using normal operating procedures following a closure of Service Water valve 2SWP*MOV66A.

Initial Conditions:

1. All prestart checks and data required by Attachment 1 have been completed for the Division I EDG.
2. N2-OP-100A, Standby Diesel Generators, Attachment 1: Run Time Log and Validity and Attachment 2: Diesel Generator Loaded Run Operating Log are available and being used by an Operator stationed in the Division I EDG Room.
3. All other diesels are operable.
4. Grid conditions are stable.
5. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), start and load the Division I Diesel with offsite power and perform a normal load to 1100 KW, per N2-OP-100A, Section F.4.0."

Performance Steps	Standard	Grade	Comments
1. Provide repeat back of initiating cue. *Evaluator Acknowledge repeat back providing correction if necessary.*	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. Cue: If requested, give candidate OP-100A, Attachments 1 and 2.	N2-OP-100A obtained. Precautions & limitations reviewed & section F.4.0 referenced.	Sat/Unsat	
3. Verify 2ENS*SWG101-N1, NEUTRAL BREAKER 101-N1, closed.	Observe NEUTRAL BREAKER 101-N1 red light is on.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
4. Place EMERGENCY DSL GEN 1 PARALLEL switch to ON.	Parallel switch in on.	Sat/Unsat	
5. Verify EMERGENCY DSL GEN 1 VOLTAGE REGULATOR MODE SELECT switch in AUTO.	VOLTAGE REGULATOR MODE SELECT switch in AUTO and red light is on.	Sat/Unsat	
6. Place DIVISION 1 2EGS*EG1 START switch to START. **NOTE:** Annunciators 852109 and 852117 are expected to alarm.	Observe the following Engine start indications: • Red light on at EG1 Control Switch. • Diesel Speed as indicated on RPM, rises to 600 RPM. • Generator Voltage indicated on VOLTS meter rises to 4.16 A-C KILOVOLTS. • Generator Frequency indicated on FREQUENCY meter rises to 60 HERTZ. • SWP*MOV66A, SERVICE WTR OUTLET, opens. • Diesel Service Water Flow as indicated on 2SWP*F176A, SERVICE WTR FLOW, is $\geq$800 GPM. • Annunciator 852117, EDG 1 RUNNING, alarms.	**Pass/Fail**	
7. Run 2EGS*EG1 unloaded for five minutes at rated voltage AND Frequency to warmup Engine. Cue: Instructor/Evaluator should time compress and inform operator that 5 minutes has expired.	2 EGS and EG1 has run unloaded for at least 5 minutes.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
8. Place SYNCHRONIZE TO BUS 101 switch to ON.	SYNCHRONIZE TO BUS 101 switch is ON.	Sat/Unsat	
9. Using EMERGENCY DSL GEN 1 VOLTAGE REGULATOR switch, verify voltage control by varying 4.16KV BUS 2ENS*SWG101 INCOMING VOLTS.	Voltage control verified by observing incoming volts meter variance.	Sat/Unsat	
10. Using EMERGENCY DSL GEN 1 GOVERNOR switch, verify governor control by varying SYNCHROSCOPE indication.	Speed control verified by observing change in rate of SYCHROSCOPE rotation or FREQUENCY meter readings change.	Sat/Unsat	
11. Using VOLTAGE REGULATOR switch, match voltages on 4.16KV 2ENS*SWG101 INCOMING VOLTS meter AND 4KV RTX-XSR1A / 2ABS-X1 / 2EGS*EG1 RUNNING VOLTS meter.	Observe voltages matched on INCOMING and RUNNING VOLTS meters.	Sat/Unsat	
12. Adjust GOVERNOR switch to establish slow clockwise rotation on SYNCHROSCOPE (slow in fast direction), as indicated by: • Meter movement between ½ to 1 inch per second • 12 to 24 seconds for 360° meter sweep	Observe SYNCHROSCOPE rate approximately 12 to 24 seconds for one 360° sweep.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
13. WHEN SYNCHROSCOPE reaches 5 minutes before 12 o'clock (11 o'clock position): Close 2ENS*SWG101-1	Observe 2ENS*SWG101-1 breaker Red light ON, Green light OFF and generator picks up load by positive (upward) indication on WATTS meter.	**Pass/Fail**	
14. Place SYCHRONIZE TO BUS 101 switch to OFF.	SYNCHRONIZE TO BUS 101 is OFF	Sat/Unsat	
15. Using GOVERNOR switch, raise to 500 KW Generator Load to 1100 KW at a rate of about 500 KW per minute as follows. **INSTRUCTOR NOTE:** **AFTER Load has been raised to 500 KW, Activate Override to close 2SWP*MOV66A by depressing F3 and activate MOV power supply trip after 35 seconds.** Simulator Cue: Upon receipt of Annunciator 852216, EDG Service Water Flow Low. ALTERNATE PATH	Observe load raised to 500 KW on WATTS meter.	Sat/Unsat	
16. Refers to 852126 alarm response.	852126 alarm response referred to, observes low service water flow (120 gpm) on SWP*FI76A.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
17. Verify SWP*MOV66A open.	Observes and reports 2SWP*MOV66A is closed and identifies breaker tripped, after trip occurs. Observe and report valve failure to open Green light OFF, Red light OFF.	Sat/Unsat	
18. Verify SWP*V941A and V231A open. **Note:** Candidate may NOT verify 941A and 231A because these are manual valves which are known to be open because flow previously existed. **Cue:** If sent to determine the position of SWP*V941A and 231A, report both valves are open. **Cue:** If asked Direct Operator to take the appropriate actions.	Contacts and directs the AO to verify SWP*V941A and V231A are open. AO contacted and 941A and 231A verified open.	Sat/Unsat	
19. Unload EDG1 per N2-OP-100A, Section H.1.0 for Emergency Shutdown **OR** Section F.6.0 for Normal Shutdown	Refers to N2-OP-100A, Section H.1.0 to Emergency Shutdown EDG1. **OR** Refers to N2-OP-100A, Section F.6.0 to Normal Shutdown EDG1.	**Pass/Fail**	
• Using EMERGENCY DSL GEN 1 GOVERNOR switch, reduce Diesel Generator Load to approximately 100 KW.	Observe load reduced to 100KW on WATTS meter by lowering governor.		

Performance Steps	Standard	Grade	Comments
• Using EMERGENCY DSL GEN 1 VOLTAGE REGULATOR switch, adjust VARS to >0 but <100 A-C KILOVARS TO BUS.	Observe VARS between 0 and 100 to bus on AC KILOVARS TO BUS meter by lowering voltage regulator.		
• Open 2EGS*SWG101-1, OUTPUT BREAKER 101-1	Rotate control switch for 2ENS*SWG101-1 OUTPUT BREAKER counter clockwise observe. • Green light ON, Red light OFF • WATTS goes to 0		
Note: Depending on the shutdowm method selected shutdown the EDG using one of the following methods			
•20. If using N2-OP-100A, Section H.1.0 to Emergency Shutdown EDG1 notify operator at 2CES*IPNL406 ENGINE CONTROL PANEL to depress the emergency STOP button. **INSTRUCTOR NOTE:** **IF NOTIFIED TO PERFORM EMERGENCY STOP** **Activate malfunction DG02A to shutdown EDG1 by depressing F6** Cue: Report as AO from EDG room that the Division I EDG has been shutdown.	Observes annunciator 852117 EDG 1 RUNNING clears. Observes Division I 2EGS*EG1 green light on.	Sat/Unsat	
OR		**OR**	

Performance Steps	Standard	Grade	Comments
•21a. If using N2-OP-100A, Section F.6.0 to Normal Shutdown EDG1 at 2CEC*PNL852, place DIVISION I 2EGS*START control switch to STOP.	Observe engine 5 minute cooldown cycle begins.	Sat/Unsat	
22. Notify AO in the EDG room to complete the remaining shutdown steps. Cue: Report as AO from EDG room that the remaining steps are in progress.	AO dispatched to complete shutdown steps in the EDG room.	Sat/Unsat	
23. Report Division I 2EGS*EG1 has been shutdown due to a loss of Cooling Water.	Report has been made to SSS.	Sat/Unsat	

Terminating Cue: **2EGS*EG1 Division I has been unloaded and shutdown following unsuccessful run.**

RECORD STOP TIME _____

Initial Conditions:

1. All prestart checks and data required by Attachment 1 have been completed for the Division I EDG.
2. N2-OP-100A, Standby Diesel Generators, Attachment 1: Run Time Log and Validity and Attachment 2: Diesel Generator Loaded Run Operating Log are available and being used by an Operator stationed in the Division I EDG Room.
3. All other diesels are operable.
4. Grid conditions are stable.
5. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), start and load the Division I Diesel with offsite power and perform a normal load to 1100 KW, per N2-OP-100A, Section F.4.0."

NIAGARA MOHAWK POWER CORPORATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Add Water to the Suppression Pool via the HPCS System (Faulted) Revision: 0

Task Number: 20690601012

Approvals:

General Supervisor Operations Training (Designee) Date

General Supervisor Operations (Designee) Date

NA NRC EXAM
Configuration Control Date

Performer:_____(RO/SRO/AO)

Trainer/Evaluator:_____

Evaluation Method: X Perform _____Simulate

Evaluation Location: _____Plant X Simulator

Expected Completion Time: 20 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:_____

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

Simulator

Simulator Set-up (if required):

Plant Operating or Shutdown, no LOCA and conditions that allow HPCS to be inoperable. Suppression Pool Level is 199.5 feet.

Overrides: P601-E22A-S23A, CSH*MOV111, CONT SW, **NEUTRAL**
After 2 minutes, P601-E22A-S23A, CSH*MOV111, Closed
CSH*MOV111 Red and Green lights **OFF**
CSH*MOV111 Amber INOP light **ON**
Annunciator 601729 **ON**

Directions to the Instructor/Evaluator:

Prior to performance of this JPM, obtain SSS / 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 SSS / CSO permission.

Directions to Operators:

Read Before Every JPM Performance:

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

Read Before Each Evaluated JPM Performance:

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

Read Before Each Training JPM Performance:

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

Notes to Instructor / Evaluator:

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

References:

1. N2-OPS-33, Rev 06, High Pressure Core Spray System
2. NUREG K/A 223001 A1.08 (3.5/3.6), A2.11 (3.6/3.8), 295030 EA1.03 (3.4/3.4)

Tools and Equipment:

None

Task Standard: Suppression Pool Level restored to normal band.

Initial Conditions:

1. The plant is operating at 100% power.
2. Suppression Pool level is 199.5 feet.
3. HPCS is in STANDBY
4. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), raise Suppression Pool level to 199.8 feet using the High Pressure Core Spray pump. Establish a HPCS flow of 2500 - 3500 GPM."

Performance Steps	Standard	Grade	Comments
1. Provide repeat back of initiating cue. *Evaluator Acknowledge repeat back providing correction if necessary.*	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. **Instructor Cue:** If required, inform examinee that Subsection F.1.0, Standby Condition Status Checks, is complete, per Step H.3.1 of N2-OP-33.	N2-OP-33 obtained. Precautions & limitations reviewed & section H.3.0 referenced.	Sat/Unsat	
3. Notify SSS to declare CSH inoperable.	SSS notified and CSH has been declared inoperable.	Sat/Unsat	

Performance Steps		Standard	Grade	Comments
4.	Start CSH*P1, HPCS Pump 1.	CSH*P1, HPCS Pump 1, is started by placing its control switch to START, and then to NORMAL-AFTER-START.	**Pass/Fail**	
5.	Verify open CSH*MOV105, MINIMUM FLOW BYPASS VALVE	CSH*MOV105, MINIMUM FLOW BYPASS VALVE, verified open by observing red light ON and green light OFF.	Sat/Unsat	
•6.	Monitor CST and Suppression Pool levels.	CST and Suppression Pool levels monitored on: • P601 SUPPR POOL B LEVEL (CMS*LI11B) • SPDS Safety Function Status Screen • P851 CNST STORAGE TK1A/B (2CNS-LI8A/B)	Sat/Unsat	
7.	Throttle open CSH*MOV111, TEST RETURN TO SUPPRESSION POOL to begin transferring water to the Suppression Pool.	CSH*MOV111, TEST RETURN TO SUPPRESSION POOL throttled open and Suppression Pool level starting to rise.	**Pass/Fail**	
8.	When CSH system flow is > 825 GPM, verify closed CSH*MOV105, MINIMUM FLOW BYPASS VALVE	CSH*MOV105, MINIMUM FLOW BYPASS VALVE, verified closed by observing green light ON and red light OFF.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
9. Using CSH*MOV111, establish a CSH flow of 3000 ±500 GPM. **INSTRUCTOR NOTE:** After flow is stabilized and prior to SP Level of 199.8 feet, activate override for CSH*MOV111 failure (F4). **Alternate Path: CSH*MOV111 will not close when positioned to close.**	CSH flow set at 2500 - 3500 GPM on P601 HPCS SYSTEM FLOW (E22-R603) meter.	Sat/Unsat	
10. When Suppression Pool Level reaches approximately 199.8 feet, close CSH*MOV111, TEST RETURN TO SUPPRESSION POOL	Determines CSH*MOV111, TEST RETURN TO SUPPRESSION POOL will NOT close by observing NO lowering flow on P601 HPCS SYSTEM FLOW (E22-R603) meter as CSH*MOV111 is throttled closed.	Sat/Unsat	
•11. Notifies Control Room CSH*MOV111, TEST RETURN TO SUPPRESSION POOL will NOT close. Cue: If asked, as SSS: Secure all injection from CSH into the Suppression Pool prior to exceeding 201 feet.	Control room notified that CSH*MOV111, TEST RETURN TO SUPPRESSION POOL will NOT close.	Sat/Unsat	
12. Stops Suppression Pool level increase via at least one the following methods: • Stops CSH*P1, HPCS Pump 1 and closes CSH*MOV101, PUMP SUCT FROM CNDS TK	Stops Suppression Pool level increase before level reaches 201 feet, 0 inches, via one of the following methods: • Stops CSH*P1, HPCS Pump 1 and closes CSH*MOV101, PUMP SUCT FROM CNDS TK	**Pass/Fail**	

Performance Steps	Standard	Grade	Comments
• Dispatches an operator to locally close CSH*MOV111, TEST RETURN TO SUPPRESSION POOL • Stops CSH*P1, HPCS Pump 1 and dispatches an operator to locally close CSH*MOV111, TEST RETURN TO SUPPRESSION POOL.	• Dispatches an operator to locally close CSH*MOV111, TEST RETURN TO SUPPRESSION POOL • Stops CSH*P1, HPCS Pump 1 and dispatches an operator to locally close CSH*MOV111, TEST RETURN TO SUPPRESSION POOL.		
INSTRUCTOR NOTE: **If directed to close CSH*MOV111 locally, activate overrides by depressing F5 to open CSH*MOV111 breaker and simulate manual closing.**	Observes Suppression Pool level stable on P601 SUPPR POOL B LEVEL (CMS*LI11B) or SPDS Safety Function Status Screen		
13. Notify SSS of HPCS system status based on actions taken in Step 11.	SSS is notified	Sat/Unsat	

Terminating Cue: **Suppression Pool Level is stabilized below 201 feet.**

RECORD STOP TIME _____

Initial Conditions:

1. The plant is operating at 100% power.
2. Suppression Pool level is 199.5 feet.
3. HPCS is in STANDBY
4. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), raise Suppression Pool level to 199.8 feet using the High Pressure Core Spray pump. Establish a HPCS flow of 2500 - 3500 GPM."

NIAGARA MOHAWK POWER CORPORATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Manually Initiate ADS (Faulted) Revision: 0

Task Number: 21800201012

Approvals:

12/1/00
General Supervisor Operations Training (Designee) Date

12-1-00
General Supervisor Operations (Designee) Date

NA NRC EXAM /
Configuration Control Date

Performer:_____(RO/SRO/AO)

Trainer/Evaluator:_____

Evaluation Method: ___X___Perform _____Simulate

Evaluation Location: _____Plant _____X_____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:_____

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

Simulator

Simulator Set-up (if required):

IC-65
LOCA signal sealed in, RPV Level is approaching TAF, No High Pressure Injection Systems are Available
Override Div I and Div II ADS Initiation Pushbuttons.

Directions to the Instructor/Evaluator:

Prior to performance of this JPM, obtain SSS / 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 SSS / CSO permission.

Directions to Operators:

Read Before Every JPM Performance:

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

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

Read Before Each Evaluated JPM Performance:

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

Read Before Each Training JPM Performance:

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

Notes to Instructor / Evaluator:

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

References:

1. N2-OP-34, Rev 07, Nuclear Boiler, Automatic Depressurization and Safety Relief Valves
2. N2-EOP-C2, Rev 08, RPV Blowdown
3. NUREG K/A 218000 A2.04 (4.1/4.2), A4.01 (4.4/4.4), A4.02 (4.2/4.2)

Tools and Equipment:

1. PA 235 keys (or equivalent)

Task Standard: Seven (7) ADS Valves open as indicated by Red, OPEN, Lights, High SRV Tailpipe temperatures and RPV Pressure lowering.

Initial Conditions:

1. LOCA signal sealed in.
2. RPV Level is approaching TAF.
3. No High Pressure Injection Systems are available.
4. N2-EOP-C2, RPV Blowdown procedure has been entered.
5. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), OPEN all seven (7) ADS Valves."

Performance Steps	Standard	Grade	Comments
1. Provide repeat back of initiating cue. *Evaluator Acknowledge repeat back providing correction if necessary.*	Proper communications used for repeat back (GAP-OPS-O1/Operations Manual)	Sat/Unsat	
RECORD START TIME _____			
•2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure.	N2-OP-34 obtained. Precautions & limitations reviewed & section F.1.0 and H.1.0 referenced.	Sat/Unsat	
3. Observes ECCS pumps running.	At P601, observe Red lights ON for RHS*P1A and RHS*P1B.	Sat/Unsat	
4. At panel 2CEC*PNL601 Arm and Depress the ADS Logic A and E and B and F Initiation Pushbuttons.	At panel 2CEC*PNL601 Arming Collars on ADS Logic A and E and B and F Initiation Pushbuttons rotated to the ARM position and Initiation Pushbuttons depressed. • 601533, ADS A MANUAL INITIATION SW ARMED • 601534, ADS B MANUAL INITIATION SW ARMED	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
5. Verify all seven ADS Valves Open. **(FAULT ADS Valves do NOT Open, Override Div I and Div II Initiation Pushbuttons)**	Recognizes Red OPEN indication on all seven ADS Valves are NOT energized and valves have NOT Opened.	**Pass/Fail**	
•6. .Reports failure to EOP Director. **Cue: As EOP Director, direct operator to open ADS valves at Panel 628 and 631**		Sat/Unsat	
7. Obtains seven (7) PA 235 keys from the CSO desk.	Seven (7) PA 235 keys obtained.	**Pass/Fail**	
Note: Only step 8a or 8b is required to be performed			
•8a.AT CEC*PNL628 place keys in the AUTO/OPEN Key Lock Switches for the following ADS Valves and place the switches in the OPEN position. • 2MSS*PSV137 • 2MSS*PSV127 • 2MSS*PSV126 • 2MSS*PSV121 • 2MSS*PSV134 • 2MSS*PSV130 • 2MSS*PSV129 **AND/OR**	At CEC*PNL 628, AUTO/OPEN Key Lock Switches for the following ADS Valves in the OPEN Position. • 2MSS*PSV137 • 2MSS*PSV127 • 2MSS*PSV126 • 2MSS*PSV121 • 2MSS*PSV134 • 2MSS*PSV130 • 2MSS*PSV129	**Pass/Fail**	

Performance Steps	Standard	Grade	Comments
•8b. At CEC*PNL631 place keys in the AUTO/OPEN Key Lock Switches for the following ADS Valves and place the switches in the OPEN position. • 2MSS*PSV137 • 2MSS*PSV127 • 2MSS*PSV126 • 2MSS*PSV121 • 2MSS*PSV134 • 2MSS*PSV130 • 2MSS*PSV129	AT CEC*PNL631, AUTO/OPEN Key Lock Switches for the following ADS Valves in the OPEN position. • 2MSS*PSV137 • 2MSS*PSV127 • 2MSS*PSV126 • 2MSS*PSV121 • 2MSS*PSV134 • 2MSS*PSV130 • 2MSS*PSV129	**Pass/Fail**	
•9. Verify Red OPEN lights on valves being operated energize. If RPV pressure is above 300psig,	At Panel 2CEC*PNL628 and/or P631 Red lights for each ADS valve energized.	Sat/Unsat	
•10 At panel 2CEC*PNL601 verify Red OPEN lights on all seven (7) ADS.	At Panel 2CEC*PNL601 Red OPEN lights on all seven (7) ADS energized.	Sat/Unsat/NA	
11. Notifies EOP Director that Seven (7) ADS Valves open.	EOP Director notified Seven (7) ADS Valves are open.	Sat/Unsat	

Terminating Cue: **Seven (7) ADS Valves open as indicated by Red, OPEN, Lights.**

RECORD STOP TIME _____

Initial Conditions:

1. LOCA signal sealed in.
2. RPV Level is approaching TAF.
3. No High Pressure Injection Systems are available.
4. N2-EOP-C2, RPV Blowdown procedure has been entered.
5. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), OPEN all seven (7) ADS Valves."

NIAGARA MOHAWK POWER CORPORATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Raise CRD Flow to the RPV After Shutdown Revision: 0

Task Number: 2019160501

Approvals:

12-1-00
General Supervisor Operations Training (Designee) Date

12-1-00
General Supervisor Operations (Designee) Date

NA NRC EXAM /
Configuration Control Date

Performer:_____(RO/SRO/AO)

Trainer/Evaluator:_____

Evaluation Method: ___X___Perform _____Simulate

Evaluation Location: _____Plant ___X___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:_____

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

Simulator

Simulator Set-up (if required):

Plant in a scram condition following power operations.

Directions to the Instructor/Evaluator:

Prior to performance of this JPM, obtain SSS / 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 SSS / CSO permission.

Directions to Operators:

Read Before Every JPM Performance:

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

Read Before Each Evaluated JPM Performance:

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

Read Before Each Training JPM Performance:

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

Notes to Instructor / Evaluator:

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

References:

1. N2-OP-30, Rev 6, Control Rod Drive
2. NUREG K/A 295031, EA1.10 (3.6/3.7)

Tools and Equipment:

None

Task Standard: CRD flow to the RPV has been maximized in accordance with N2-OP-30, H.3.0.

Initial Conditions:

1. The reactor has automatically scrammed.
2. N2-EOP-RPV has been entered.
3. RPV water level is lowering, due to a loss of high pressure injection systems.
4. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), you have level control, start the second CRD pump and maximize CRD flow using OP-30, section H.3.0."

Performance Steps	Standard	Grade	Comments
1. Provide repeat back of initiating cue. *Evaluator Acknowledge repeat back providing correction if necessary.*	Proper communications used for repeat back (GAP-OPS-O1/Operations Manual)	Sat/Unsat	
RECORD START TIME _____			
•2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure	N2-OP-30 obtained. H.3.0 referenced.	Sat/Unsat	
3. Verify one CRD pump is operating.	At P603, determine CRD PUMP 1A is operating by observing Red light ON, Green light OFF.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
4. Verify the Reactor Protection System is tripped.	At P603, determine RPS trip systems "A" and "B" are tripped by observing: • 4 white RPS scram solenoid power lights for RPS A are OFF (left side of P603). • 4 white RPS scram solenoid power lights for RPS B are OFF (right side of P603).	Sat/Unsat	
5. Start CRD Pump 1B	At P603, Turn CRD PUMP 1B Control Switch clockwise to START position and observe: • Red light ON, Green light OFF. • Amps rise then lower to normal run current on CRD P1B CURRENT AM-2RDSB51. Release control switch.	Sat/Unsat	
•6. Monitor CRD flow and RDS-P1B amps during RPV depressurization.	Observe CRD SYSTEM FLOW C12R606. Observe RDS-P1B amps on CRD P1B CURRENT AM-2RDSB51. Maintain less than 40 amps.	Sat/Unsat	
•7. Open RDS-PV101, CRD PRESS THROT CONT MOV.	At P603, turn and hold (as necessary) 2RDS-PV101 CRD PRESS THROT CONT MOV clockwise until PV101 is full open by observing Red light ON, Green light OFF, then release. (Monitory amps and flow per step 6 above.)	**Pass/Fail**	
•8. Place 2RDS-FC107, CRD FLOW CONTROLLER in MANUAL	AT P603, 2RDS-FC107 CRD FLOW CONTROLLER, position controller "M" SW to "M". • Observe Flow controller output at 0 on FC107 lower horizontal meter.	**Pass/Fail**	

Performance Steps	Standard	Grade	Comments
•9. Open 2RDS-FV107, CRD FLOW CONTROL VLV.	At P603, 2RDS-FC107 CRD FLOW CONTROLLER, depress OPEN (right) pushbutton as necessary to open Flow Control Vlv. Observe: • 2RDS-FC107 controller output (horizontal) signal rises. • 2RDS-FV6B CRD SYSTEM B FLOW CONTROL VLV Red light ON, Green light OFF. Note: Other indications of flow rising can be observed on P603, COOLING WTR FLOW, DRIVE WTER AND COOLING WTR DIFF PRESS	**Pass/Fail**	
10. Report to EOP Director that CRD flow has been maximized to the RPV.	EOP Director informed that CRD flow has been maximized to the RPV.	Sat/Unsat	

Terminating Cue: **RDS-P1A and B are running, RDS-PV101 and RDS-FC107 are open and CRD flow is maximized to the RPV.**

RECORD STOP TIME _____

Initial Conditions:

1. The reactor has automatically scrammed.
2. N2-EOP-RPV has been entered.
3. RPV water level is lowering, due to a loss of high pressure injection systems.
4. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), you have level control, start the second CRD pump and maximize CRD flow using OP-30, section H.3.0."

NIAGARA MOHAWK POWER CORPORATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Vent the Reactor Pressure Vessel for Primary Containment Flooding (Faulted)

Revision: 0

Task Number: 20094005012

Approvals:

11/31/00
General Supervisor Operations Training (Designee) Date

12-1-00
General Supervisor Operations (Designee) Date

NA NRC EXAM
Configuration Control Date

Performer:_____(RO/SRO/AO)

Trainer/Evaluator:_____

Evaluation Method: ___X___Perform _____Simulate

Evaluation Location: _____Plant _____X_____Simulator

Expected Completion Time: 35 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:_____

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

Simulator

Simulator Set-up (if required):

1. IC61
2. LOCA Conditions exist
3. Malfunction MS13, True to defeat MSIV Closure (F4).
4. Override Inboard MSIV Control Switches in CLOSE.
5. MSIV Isolation on Main Steam Line high radiation.
6. Remote MS05, App R Valve Supply Breakers Shut (F3).

Directions to the Instructor/Evaluator:

Prior to performance of this JPM, obtain SSS / 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 SSS / CSO permission.

Directions to Operators:

Read Before Every JPM Performance:

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

Read Before Each Evaluated JPM Performance:

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

Read Before Each Training JPM Performance:

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

Notes to Instructor / Evaluator:

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

References:

1. N2-EOP-6, Attachment 12, Rev. 05, Venting the RPV
2. NUREG K/A 295031, EA2.01 (4.6/4.6)
   239001, A2.03 (4.0/4.2), A4.01 (4.2/4.0), A4.02 (3.2/3.2)

Tools and Equipment:

1. PA235 key or equivalent. PA1235 and PA2235 are interchangeable.

Task Standard:

Reactor Pressure Vessel is vented to the condenser via Main Steam Line drains in accordance with N2-EOP-6 Attachment 12.

Initial Conditions:

1. A large LOCA has occurred.
2. Main Steam Isolation Valves have automatically isolated.
3. Adequate core cooling has not been established.
4. Primary Containment Flooding is in progress.
5. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), vent the RPV in accordance with N2-EOP-6, Attachment 12."

Performance Steps	Standard	Grade	Comments
1. Provide repeat back of initiating cue. *Evaluator Acknowledge repeat back providing correction if necessary*	Proper communications used for repeat back (GAP-OPS-O1/Operations Manual)	Sat/Unsat	
RECORD START TIME _____			
2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure	N2-EOP-6, Attachment 12 obtained and reviewed.	Sat/Unsat	
3. Determine MSIV position.	At P602, determine all MSIV's are closed by observing green lights on for all MSIV's.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
4. Verify all eight inboard and outboard MSIV control switches are in CLOSED position.	At P602 place the following switches from AUTO to CLOSE position for all eight MSIV's: • 2MSS*AOV 6A • 2MSS*AOV 7A • 2MSS*AOV 6B • 2MSS*AOV 7B • 2MSS*AOV 6C • 2MSS*AOV 7C • 2MSS*AOV 6D • 2MSS*AOV 7D	Sat/Unsat	
5. Determine MSIV isolation signal is present.	At P602, observe annunciators 602218 and 602224 are ON.	Sat/Unsat	
6. Defeat MSIV isolation signals. INSTRUCTOR NOTE: When requested to defeat MSIV interlocks, **activate F4, MS13, TRUE MSIV Isolation Failure.**	Requests MSIV isolation interlocks to be defeated.	Sat/Unsat	
Cue: Inform operator MSIV isolation interlocks have been defeated, 3.1.1.c is complete.	Acknowledges MSIV isolation interlocks defeated.		
7. Place LOCA override switches for IAS*SOV166 and 184 to OVERRIDE.	Using PA235 key, at P851 insert keys and rotate to OVERRIDE position for IAS*SOV166 and 184.	Sat/Unsat	
8. Open IAS*SOV166, PRIMARY CNTMT OUTBD ISOL VLV TO SRV.	At P851, rotate IAS*SOV166 Control Switch clockwise to OPEN, then release. • Observe IAS*SOV166 green light OFF, red light ON.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
9. Open IAS*SOV184, PRIMARY CNTMT INBD ISOL VLV TO SRV.	At P851, rotate IAS*SOV184 control switch clockwise to OPEN, then release • Observe IAS*SOV184 Green light OFF, Red light ON.	Sat/Unsat	
10. Open any outboard MSIV.	At P602, place control switch for selected MSIV to AUTO. • Observe Pilot SOV A ENERGIZE for selected MSIV. • Observe Pilot SOV B ENERGIZE for selected MSIV. • Observe Red light ON, Green Light OFF for selected MSIV.	Sat/Unsat	
11. Open Corresponding Inboard MSIV Due to FAULT, NO INBOARD MSIV will open, requiring ALTERNATE PATH. ALTERNATE PATH is contained in Attachment 12, Step 3.1.2 **NOTE**: Operator may open other MSIV's or continue with 3.1.2	At P602, place control switch for selected MSIV to AUTO. • Identifies failure of Inbd MSIV's to OPEN.	Sat/Unsat	
12. Report failure of all inboard MSIV's to open to EOP Director.	Failure reported.	Sat/Unsat	
13. Fully open MSS*MOV207, INSIDE MSIV's UPSTREAM DRAIN VLV.	At PNL824, Rotate and hold control switch MSS*MOV207 until Red light on, Green light OFF, then release.	**Pass/Fail**	

Performance Steps	Standard	Grade	Comments
14. Open MSS*MOV111, MAIN STM LINE DRAIN ISOL VLV.	At P602, using PA235 key, rotate MSS*MOV111 control switch clockwise to OPEN. • Observe green light OFF, Red light ON.	**Pass/Fail**	
15. Close power supply breaker for MSS*MOV112. INSTRUCTOR NOTE: When directed to close EHS*MCC102 Breaker 7A, **activate F3, Remote MS05, Shut** Cue: Report MCC102-7A beaker is closed and alarm circuit is enabled.	Directs Auxiliary Operator dispatched to EHS*MCC102 to close breaker 7A and place the alarm circuit control switch to enable. • Observe green light ON for MSS*MOV112.	**Pass/Fail**	
16. Open MSS*MOV112, MAIN STEAM LINE DRAIN OUTBD	At P602, using PA235 key, rotate MSS*MOV112 control switch to OPEN. • Observe Green light OFF, Red light ON.	**Pass/Fail**	
17. Fully open MSS-MOV187, MAIN STM LINE PRESS EQL/WARMING. INSTRUCTOR NOTE: IF condenser vacuum is below 7" the Bypass Valves will NOT open. The RPV is depressurizes through the steam line drains. JPM step 18 is N/A.	At P602, rotate MSS-MOV187 control switch clockwise to OPEN. • HOLD until Red light ON, Green light OFF, then release.	**Pass/Fail**	

Performance Steps	Standard	Grade	Comments
18. Open Turbine Bypass valves, using BYPASS VALVE OPENING JACK SELECTOR. INSTRUCTOR NOTE: Successful completion of EITHER step 18 or 19 is required to satisfactorily complete task.	At P851 depress and hold INCREASE pushbutton on BYPASS VALVE OPENING JACK. • Observe INCREASE pushbutton is backlit. • Observe BYPASS JACK IN CONTROL SELECTOR amber light lit. • Annunciator 851150, TURBINE BYPASS VALVE OPEN actuates. • Observe Bypass Valves 1 through 5 opening sequentially to 100%. • When all 5 valves indicate 100% open, release INCREASE Pushbutton. • Observe BYPASS JACK IN CONTROL SELECTOR red OPEN light lit.	Sat/Unsat /NA	
19. If Bypass Valves don't open, continue at step 3.1.4 to open Main Steam Line Drains.	Open Turbine Stop Valve Drains *(2CEC-PNL824)*: • MSS-MOV21A, TURBINE STOP VLV MSV3 DRAIN VLV • MSS-MOV21B, TURBINE STOP VLV MSV4 DRAIN VLV • MSS-MOV21C, TURBINE STOP VLV MSV1 DRAIN VLV • MSS-MOV21D, TURBINE STOP VLV MSV2 DRAIN VLV	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
	Open MSS-MOV147, TURBINE CONTROL VLVS DRAIN VLV *(2CEC-PNL824)* Open Main Steam Line Drains *(2CEC-PNL824)*: • MSS-AOV191, MAIN STM LINE HEADER DRAIN VLV • MSS-AOV194, MAIN STM LINE HEADER DRAIN VLV • MSS-AOV203, MAINSTM LINE HEADER DRAIN VLV • MSS-AOV205, MAIN STM LINE HEADER DRAIN VLV • MSS-AOV209, MAIN STM LINE HEADER DRAIN VLV Open MSL Drain Orifice Bypass *(2CEC-PNL824)*: • MSS-AOV85A, MAIN STM LINE DRAIN VLV • MSS-AOV85B, MAIN STM LINE DRAIN VLV • MSS-AOV85C, MAIN STM LINE DRAIN VLV • MSS-AOV85D, MAIN STM LINE DRAIN VLV		
20. Report to SSS that the RPV is being vented to the condenser in accordance with EOP-6, Attachment 12.	Report to SSS is completed.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments

Terminating Cue: **RPV vented to Main Condenser IAW N2-EOP-6, Attachment 12.**

RECORD STOP TIME _____

Initial Conditions:

1. A large LOCA has occurred.
2. Main Steam Isolation Valves have automatically isolated.
3. Adequate core cooling has not been established.
4. Primary Containment Flooding is in progress.
6. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), vent the RPV in accordance with N2-EOP-6, Attachment 12."

NIAGARA MOHAWK POWER CORPORATION

OPERATOR JOB PERFORMANCE MEASURE

Title: RCIC Turbine Reset

Revision: 0

Task Number: 2179050101

Approvals:

11/31/00
General Supervisor Operations Training (Designee) Date

12-1-00
General Supervisor Operations (Designee) Date

NA NRC EXAM /
Configuration Control Date

Performer:_____(RO/SRO/AO)

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:_____

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

Simulator

Simulator Set-up (if required):

1. IC61
2. No RCIC Initiation Signal present
3. Verify RCIC turbine is tripped using pushbutton at P601

Directions to the Instructor/Evaluator:

Prior to performance of this JPM, obtain SSS / 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 SSS / CSO permission.

Directions to Operators:

Read Before Every JPM Performance:

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

Read Before Each Evaluated JPM Performance:

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

Read Before Each Training JPM Performance:

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

Notes to Instructor / Evaluator:

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

References:

1. N2-OP-35, Rev 3, Section H.1.0
2. NMP2 TIF: 3.16
3. NUREG K/A 217000 A4.02-3.9 / 3.9

Tools and Equipment:

None

Task Standard: ICS Turbine Trip Throttle Valve reset in accordance with N2-OP-35, Section H.1.0.

Initial Conditions:

1. The RCIC turbine has been manually tripped from the Control Room.
2. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), reset the RCIC Turbine and verify the trip function."

Performance Steps	Standard	Grade	Comments
1. Provide repeat back of initiating cue. *Evaluator Acknowledge repeat back providing correction if necessary.*	Proper communications used for repeat back (GAP-OPS-O1/Operations Manual)	Sat/Unsat	
RECORD START TIME _____			
•2. Obtain a copy of the reference procedure and review/utilize the correct section of the procedure	N2-OP-35 obtained. Section H.1.0 referenced.	Sat/Unsat	
3. Verify RCIC initiation signal is NOT present.	At P601, observe white RCIC INITIATION SEAL IN RESET light is OFF.	Sat/Unsat	
4. Verify Steam Admission valve is closed.	At P601, observe 2ICS*MOV120 green light ON	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
5. Shut Turbine Steam Supply valve.	At P601, rotate the control switch for "Turbine Trip Throttle Valve" 2ICS*MOV150 counterclockwise to the close position. Observe Green Lights ON and Red Lights OFF. (Light indications on vertical and horizontal section of P601.)	**Pass/Fail**	
6. Partially open Turbine Trip Throttle Valve. EVALUATOR NOTE: Tripping ICS*MOV150 from full open without steam flow may cause valve damage. (Reference N2-OP-35 Precaution D.12.0)	At P601, rotate the control switch for "Turbine Trip Throttle Valve" 2ICS*MOV150 clockwise to the open position **just** until the Red Lights illuminate. (Red lights and green lights lit on vertical and horizontal section of P601.)	**Pass/Fail**	
7. Depress Turbine Trip pushbutton and verify Turbine Trip Throttle Valve shuts.	At P601, depress the "Turbine Tripped" pushbutton and observe. "Turbine Trip Throttle Valve" tripped. 2ICS*MOV150 Green Indicating Light on vertical section of P601 remains ON, Red Light Out, Red and Green Indicating Lights above control switch on horizontal section of P601 remains ON. Annunciator 601305 goes into alarm.	**Pass/Fail**	
8. Relatch the Turbine Trip Throttle Valve.	At P601 rotate the control switch for "Turbine Trip Throttle Valve" 2ICS*MOV150 counter clockwise to the close position and hold. Observe Green Lights ON and Red Lights OFF. (Red and Green Lights on vertical and horizontal sections of P601)	**Pass/Fail**	

Performance Steps	Standard	Grade	Comments
9. Open Turbine Trip Throttle Valve.	At P601 rotate the control switch for "Turbine Trip Throttle Valve" 2ICS*MOV150 to the open position and hold. Observe both Red Indicating Lights (on panel 601 for 2ICS*MOV150) are ON, both Green Indicating Lights go out. Annunciator 601305 clears.	**Pass/Fail**	
10. Report RCIC turbine is reset.	Report RCIC turbine is reset.	Sat/Unsat	

Terminating Cue: **Turbine Trip Throttle Valve (2ICS*MOV150) is open.**

RECORD STOP TIME _____

Initial Conditions:

1. The RCIC turbine has been manually tripped from the Control Room.
2. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), reset the RCIC Turbine and verify the trip function."

NIAGARA MOHAWK POWER CORPORATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Defeating WCS Isolations

Revision: 1

Task Number: 2009130504

Approvals:

12-1-00
General Supervisor Operations Training (Designee) Date

12-1-00
General Supervisor Operations (Designee) Date

NA NRC EXAM
Configuration Control Date

Performer:_____(RO/SRO/AO)

Trainer/Evaluator:_____

Evaluation Method: _____Perform _____X_____Simulate

Evaluation Location: ___X____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:_____

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

Unit 2 Control Room

Simulator Set-up (if required):

None

Directions to the Instructor/Evaluator:

Prior to performance of this JPM, obtain SSS / 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 SSS / CSO permission.

Directions to Operators:

Read Before Every JPM Performance:

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

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

Read Before Each Evaluated JPM Performance:

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

Read Before Each Training JPM Performance:

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

Notes to Instructor / Evaluator:

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

References:

1. EOP-6, Rev. 05, Att. 11, Defeating WCS Isolation System Interlocks
2. N2-EOP-RPV P-5
3. NUREG 1123, K/A 295015, AK1.03 (3.8/3.9)

Tools and Equipment:

1. Flashlight
2. Keys: PA235 Key (2) L660 Key
3. Electrical Safety Equipment

Task Standard: When directed by the Control Room, defeat WCS isolation interlocks per EOP-6, Att. 11

Initial Conditions:

1. The plant has scrammed, but no rods inserted.
2. SLCS is not required.
3. The condensate and feedwater pumps are available to make up to the vessel.
4. The WCS system has isolated from a RRCS initiation signal.
5. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), bypass the WCS LDS and RRCS Isolation Interlocks. IAW, EOP-6, Att. 11."

Performance Steps	Standard	Grade	Comments
1. Provide repeat back of initiating cue. *Evaluator Acknowledge repeat back providing correction if necessary.*	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.	EOP-6, Att. 11 obtained. Precautions & limitations reviewed & sections 3.1 and 3.2 referenced.	Sat/Unsat	
3. Obtain required keys.	Obtain 2 PA235 (or equivalent keys) and 1 L660 key.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
4. Obtain and insert the keys into the keylock switches for E31A-S1A&B. (2CEC-PNL632 and PNL642) Cue: Keylock switches have keys inserted.	Keys obtained and inserted.	Sat/Unsat	
•5. Defeat the LDS Isolation Interlock for 2WCS*MOV112 by placing keylock switch E31A-S1A to bypass. Cue: Switch is in bypass.	LDS Isolation Interlock for 2WCS*MOV112 is bypassed by turning E31A-S1A clockwise on panel 2CEC*PNL632.	**Pass/Fail**	
•6. Defeat the LDS Isolation Interlock for 2WCS*MOV102 by placing keylock switch E31A-S1B to bypass. Cue: Switch is in bypass.	LDS Isolation Interlock for 2WCS*MOV102 is bypassed by turning E31A-S1B clockwise on panel 2CEC*PNL642.	**Pass/Fail**	
7. Defeat the RRCS Interlock by locating 2CEC*PNL736B and using the L660 key open the cabinet.	Panel is located on the east wall of the Relay Room.	Sat/Unsat	
•8. Disconnect the amphenol plug P2 from jack J2 on TC204 in PNL736B. Cue: Amphenol disconnected.	Amphenol is disconnected from J2 on TB TC 204 in PNL736B by unscrewing the retaining ring and pulling the amphenol free, layoff to side.	**Pass/Fail**	

Performance Steps	Standard	Grade	Comments
9. Defeat the RRCS Interlock by locating 2CEC*PNL737A and using the L660 key open the cabinet.	Panel is located on the west wall of the Relay Room.	Sat/Unsat	
•10. Disconnect the amphenol plug P2 from jack J2 on TC 104 in PNL737A Cue: Amphenol is disconnected.	Amphenol is disconnected from J2 on TB TC 104 in PNL737A by unscrewing the retaining ring and pulling the amphenol free, layoff to side.	**Pass/Fail**	
11. Notify the Control Room that the task is finished.	Control Room notified.	Sat/Unsat	

Terminating Cue: **The LDS and RRCS Isolation Interlock are defeated for 2WCS*MOV102 & 112.**

RECORD STOP TIME _____

Initial Conditions:

1. The plant has scrammed, but no rods inserted.
2. SLCS is not required.
3. The condensate and feedwater pumps are available to make up to the vessel.
4. The WCS system has isolated from a RRCS initiation signal.
5. Instructor to ask operator for any questions.

Initiating Cues:

"(Operator's name), bypass the WCS LDS and RRCS Isolation Interlocks. IAW, EOP-6, Att. 11."

NIAGARA MOHAWK POWER CORPORATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Vent Control Rod Overpiston Volume Revision: 3

Task Number: 2009620501, 2009620504

Approvals:

Steve [signature] 12/1/00
General Supervisor Operations Training (Designee) Date

Matthew J Waldecker 12-1-00
General Supervisor Operations (Designee) Date

NA NRC EXAM
Configuration Control Date

Performer:_____(RO/SRO/AO)

Trainer/Evaluator:_____

Evaluation Method: _____Perform ____X____Simulate

Evaluation Location: ___X____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:_____

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

RB 261 by elevator

Simulator Set-up (if required):

None

Directions to the Instructor/Evaluator:

Prior to performance of this JPM, obtain SSS / 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 SSS / CSO permission.

Directions to Operators:

Read Before Every JPM Performance:

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

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

Read Before Each Evaluated JPM Performance:

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

Read Before Each Training JPM Performance:

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

Notes to Instructor / Evaluator:

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

References:

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

Tools and Equipment:

1. F2-57 key to open EOP box (other tools in EOP box) Note: if the key is not available, the EOP box has a breakaway lock. EOP box entry may be **SIMULATED** contents may then be discussed and simulated.

Task Standard: Vent the withdraw line of any HCU without equipment or personnel hazard.

Initial Conditions:

1. A scram has occurred.
2. The white solenoid power lights are off.
3. The blue scram valve lights are on.
4. Several rods have not fully inserted.
5. CRD flow is not available.
6. Communications are established with Control Room.
7. An OD-7, Print out of Rod Positions is **NOT** available.
8. Instructor to ask operator for any questions.

Initiating Cues:

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

Performance Steps	Standard	Grade	Comments
1. Provide repeat back of initiating cue. *Evaluator Acknowledge repeat back providing correction if necessary*	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	Using F2-57 key, or by breaking the lock, open EOP box and review procedure and enclosures. Reference EOP-6, Att. 14, Section 3.6 Describe and identify the tools necessary to perform the task, but do **NOT** remove the tools from the EOP Box	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
3. Locate the correct HCU (26-59).	Using Figure 14-1, RDS HCU LOCATIONS, as a guide, physically locate the correct HCU (26-59).	**Pass/Fail**	
•4. Remove Cap from 2 RDS*V1, Withdraw Line Vent Valve Drain. Cue: Simulate cap removal.	AT HCU, use wrench to remove the Withdraw Line Vent Valve Cap.	**Pass/Fail**	
•5. Connect adapter. Cue: Simulate drain adapter connected.	At HCU, connect adapter to the correct RDS*V1 by threading in the quick disconnect adapter.	**Pass/Fail**	
•6. Connect hose. Cue: Simulate hose connected and routed. If the candidate starts to go down the ladder to secure the hose at the drain, tell them another operator has secured the bottom of the hose.	At HCU, connect hose to the quick disconnect adapter and route to a drain. Secure the hose at the drain against whip.	**Pass/Fail**	
•7. Uncap 2RDS*V1 Valve Operator. Cue: Simulate cap removed.	At HCU, remove cap from RDS*V1 Valve Operator.	**Pass/Fail**	

Performance Steps	Standard	Grade	Comments
8. Insert rod. Cue: Simulate RDS*V1 opened.	At HCU, slowly open RDS*V1 by inserting the T-handled HCU Vent Tool and rotating counter clockwise, venting the above piston area.	**Pass/Fail**	
9. Report to Control Room. Cue: Acknowledge report and inform the operator that control rod 26-59 has fully inserted. To restore 26-59 to normal.	Report that RDS*V1 is opened. Request rod position.	Sat/Unsat	
10. Shut RDS*V1. Cue: Simulate RDS*V1 shut.	At HCU, using the T-handled HCU Vent Tool shut RDS*V1 by rotating the operator clockwise.	**Pass/Fail**	
11. Replace the cap on 2RDS*V1 Valve Operator. Cue: Simulate cap replaced.	At HCU, replace the cap on RDS*V1 Valve Operator.	Sat/Unsat	
NOTE: At this time the JPM may be stopped.			

Terminating Cue: **Control Rod 26-59 at notch 00 and 2RDS*V1 shut**

RECORD STOP TIME _____

Initial Conditions:

1. A scram has occurred.
2. The white solenoid power lights are off.
3. The blue scram valve lights are on.
4. Several rods have not fully inserted.
5. CRD flow is not available.
6. Communications are established with Control Room.
7. An OD-7, Print out of Rod Positions is **NOT** available.
8. Instructor to ask operator for any questions.

Initiating Cues:

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

NIAGARA MOHAWK POWER CORPORATION

OPERATOR JOB PERFORMANCE MEASURE

Title: Manual Initiation of RCIC from the Remote Shutdown Revision: 1

Task Number: 2969010101

Approvals:

12/1/00
General Supervisor Operations Training (Designee) Date

12-1-00
General Supervisor Operations (Designee) Date

NA NRC EXAM /
Configuration Control Date

Performer:_____(RO/SRO/AO)

Trainer/Evaluator:_____

Evaluation Method: _____Perform _____X_____Simulate

Evaluation Location: ___X____Plant _____Simulator

Expected Completion Time: 9 min. Time Critical Task: Yes 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:_____

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

Remote Shutdown Room

Simulator Set-up (if required):

None

Directions to the Instructor/Evaluator:

Prior to performance of this JPM, obtain SSS / 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 SSS / CSO permission.

Directions to Operators:

Read Before Every JPM Performance:

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

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

Read Before Each Evaluated JPM Performance:

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

Read Before Each Training JPM Performance:

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

Notes to Instructor / Evaluator:

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

References:

1. N2-SOP-78, Rev. 2, Control Room Evacuation, Section 3.4
2. NUREG K/A: 295016 AA.1.06 (4.0/4.1)

Tools and Equipment:

1. All keys are obtained from Remote Shutdown Room red key box.

Task Standard:

Perform actions to manually initiate RCIC from the remote shutdown panel in accordance with N2-SOP-78, Section 3.4.

Initial Conditions:

1. Control Room evacuation has taken place. You are the Control Room E operator.
2. RPV pressure 900-1000 psig.
3. RPV water level 170 inches and slowly lowering.
4. Switches SW1-2CESB10 and SW1-2CESB02 at 2CES*PNL416 (C.B. 306 East Cable Chase) have been placed in the ACTUATED position.
5. Switches SW1-2CESA10 and SW1-2CESA02 at 2CES*PNL415 (C.B. 306 West Cable Chase) have been placed in the ACTUATED position.
6. Instructor to ask operator for any questions.

Initiating Cues:

This JPM is being evaluated as a TIME CRITICAL JPM.

"(Operator's name), Perform the Control Room E actions to initiate Reactor Core Isolation Cooling per N2-SOP-78, Section 3.4."

Performance Steps	Standard	Grade	Comments
1. Provide repeat back of initiating cue. *Evaluator Acknowledge repeat back providing correction if necessary*	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 utilize the correct section of the procedure	N2-SOP-78 obtained. Section 3.4 referenced.	Sat/Unsat	
The following actions are performed at the Remote Shutdown Panel:			
3. Verify control switch ICS*MOV122, TURBINE EXHAUST TO SUPPRESSION POOL, is in the OPEN position. Cue: Simulate switch in the OPEN position.	Verifies control switch ICS*MOV122, TURBINE EXHAUST TO SUPPRESSION POOL, is in the OPEN position.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
4. If RCIC DIV I (II) ISOL SEAL-IN RESET white lights are lit, reset the isolation as follows: Cue: Simulate DIV I and DIV II seal-in reset white lights off.	Observes RCIC DIV I and DIV II ISOL SEAL-IN RESET white lights are off.	Sat/Unsat	
5. If RCIC INITIATION SEAL-IN RESET white light is lit, reset the initiation as follows: Cue: Simulate DIV I and DIV II seal-in reset white lights off.	Observes RCIC DIV I and DIV II ISOL SEAL-IN RESET white lights are off.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments
Evaluator Note: The candidate is expected to indicate obtaining the required keys from the Remote Shutdown Room red key box.			
6. Except for the following switches, place all RSS Panel transfer switches to the EMERG position. Division I Switches: • Switch 9, SERVICE WTR TRANSFER DIV I • Switch 18, SERVICE WTR TRANSFER DIV I Division II Switches: • Switch 17, SERVICE WTR TRANSFER DIV II • Switch 19, SERVICE WTR TRANSFER DIV II Cue: As a switch is positioned from NORMAL to EMERG, simulate the switch in the EMERG position.	Places the following RSS Panel transfer switches to the EMERG position: • **Switch 1**, RESIDUAL HT REMOVAL TRANSFER DIV II • **Switch 2**, RX CORE ISOL COOLING TRANSFER DIV II • **Switch 3**, RX CORE ISOL COOLING TRANSFER DIV I • **Switch 4**, RX CORE ISOL COOLING TRANSFER DIV I • **Switch 5**, RX CORE ISOL COOLING TRANSFER DIV I • **Switch 6**, RESIDUAL HT REMOVAL TRANSFER DIV I • **Switch 7**, RESIDUAL HT REMOVAL TRANSFER DIV I • **Switch 8**, RESIDUAL HT REMOVAL TRANSFER DIV I • Switch 9 (not positioned) • **Switch 10**, AUTO DEPRESSURIZATION TRANSFER DIV I • **Switch 11**, RX CORE ISOL COOLING TRANSFER DIV I • Switch 17 (not positioned) • Switch 18 (not positioned) • Switch 19 (not positioned) *(Continued on next page)*	**Pass/Fail**	

Performance Steps	Standard	Grade	Comments
	• **Switch 12**, RESIDUAL HT REMOVAL TRANSFER DIV I • **Switch 13**, RESIDUAL HT REMOVAL TRANSFER DIV II • **Switch 14**, RESIDUAL HT REMOVAL TRANSFER DIV II • **Switch 15**, RESIDUAL HT REMOVAL TRANSFER DIV II • **Switch 16**, AUTO DEPRESSURIZATION TRANSFER DIV II		
7. Perform the following to initiate RCIC:			
7a. Rotate RCIC MANUAL INITIATION pushbutton collar to the INIT position. Cue: After the RCIC MANUAL INITIATION pushbutton collar is rotated to INIT position, simulate switch in the INIT position.	Rotates RCIC MANUAL INITIATION pushbutton collar to the INIT position.	**Pass/Fail**	
7b. Push RCIC MANUAL INITIATION pushbutton. Cue: When the RCIC MANUAL INITIATION pushbutton is simulated pressed, provide the system response cues provided in Step 7c below.	Presses RCIC MANUAL INITIATION pushbutton. **Note: This step must be performed within ≤9 minutes of the recorded start time.** **Record Time Step 7b is completed: _____**	**Pass/Fail**	

Performance Steps	Standard	Grade	Comments
7c. Observe that RCIC responds properly.			
- Verify turbine speed rises on indicator 2RSS*SI107. Cue: Simulate turbine speed slowly rises above 2000 rpm.)	Observes turbine speed rising on 2RSS*SI107.	Sat/Unsat	
- Verify 2ICS*HVY151, GOVERNOR VLV, comes off full open position. Cue: Simulate valve red and green lights are illuminated.	Observes red and green lights on for Supervisory Lights.	Sat/Unsat	
- Verify 2ICS*MOV120, TURBINE STM SUPPLY VLV, opens. Cue: Simulate 2ICS*MOV120 opens- valve is indicating red light on, green light off.	Observes 2ICS*MOV120 opens. Red light on and green light off.	Sat/Unsat	
- Verify 2ICS*MOV126, PMP 1 DISCH TO REACTOR, opens. Cue: Simulate red light on, green light off.	Observes 2ICS*MOV126 "" opens. Red light on and green light off.	Sat/Unsat	
- Verify RCIC flow on RCIC Total Flow Controller at 600 gpm. Cue: Simulate flow is at 600 gpm.	Observes orange needle on RCIC Total Flow Controller at 600 gpm.	Sat/Unsat	

Performance Steps	Standard	Grade	Comments

Terminating Cue: **RCIC system is initiated.**

RECORD STOP TIME _____

Initial Conditions:

1. Control Room evacuation has taken place. You are the Control Room E operator.
2. RPV pressure 900-1000 psig.
3. RPV water level 170 inches and slowly lowering.
4. Switches SW1-2CESB10 and SW1-2CESB02 at 2CES*PNL416 (C.B. 306 East Cable Chase) have been placed in the ACTUATED position.
5. Switches SW1-2CESA10 and SW1-2CESA02 at 2CES*PNL415 (C.B. 306 West Cable Chase) have been placed in the ACTUATED position.
7. Instructor to ask operator for any questions.

Initiating Cues:

This JPM is being evaluated as a TIME CRITICAL JPM.

"(Operator's name), Perform the Control Room E actions to initiate Reactor Core Isolation Cooling per N2-SOP-78, Section 3.4."