JPM NO JR001.013

Realign a misaligned RCC

Revision #: 1

Review Date: 7/18/2006

Location: Simulator

Estimated Time (minutes): 15.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: **Satisfactory** _____ **Unsatisfactory** _____

Trainee: _____

Instructor: _____

Submitted By _____ **Date** _____

Reviewed By _____ **Date** _____

NOTE

THE EVALUATOR WILL EXPLAIN THE JPM INITIAL CONDITIONS AND PROVIDE CLARIFICATION AS REQUIRED. THE EXAMINEE MAY USE ANY CONTROLLED COPY REFERENCES THAT ARE NORMALLY AVAILABLE IN THE CONTROL ROOM, INCLUDING LOGS. MAKE ALL WRITTEN REPORTS, ORAL REPORTS, AND LOG ENTRIES AS IF THE EVOLUTION WAS ACTUALLY BEING PERFORMED. THE EVALUATOR WILL BE TAKING NOTES. ASK FOR CLARIFICATION OF JPM REQUIREMENTS PRIOR TO THE BEGINNING OF JPM PERFORMANCE.

Initial Conditions:

During a Plant Load reduction it was determined that Rod C-7 was not moving and was misaligned by > 12 steps with respect to it's bank. The operators entered AP-RCC.2 RCC/RPI Malfunction and were directed to ER-RCC.2 restoring a Misaligned RCC. The Initial Actions of ER-RCC.2 are complete up to step 4.1.6. The cause of the misalignment was a blown fuse which is repaired.

Initiating Cues :

Realign Rod C-7 per ER-RCC.2 section 4.2. An Instructor will act as CO to adjust Turbine load to control Tave as directed by the procedure and will respond to any condition not related to the rod realignment. An I&C Tech is avalible in the relay room to perform any action required there.

Description: Restore a Misaligned RCCA

JPM Tasks

Task ID: 001-019-04-01A

Task Standards :

In accordance with the procedure

Tools :

Terminating Cues

Task Completion

Trainee States Task is Completed

References :

ID		Description	Review Date	Ref Flag
PRER	ER-RCC.2	RESTORING A MISALIGNED RCC		☐

Safety Considerations :

Consequences of Inadequate Performance:

Core design limit challenge

Thermal design limit challenge

General Comments :

Simulator Setup: Start at any at power IC (100%). Reduce load to <75% at 2%/min. At 80% power insert MALF ROD3 for Rod C-7. Decrease load until <75% and >12 steps misaligned on Rod C-7. Place Rods in Manual and adjust turbine load to maintain Tave at Tref. Clear MALF ROD3.

Performance Checklist

1 **Element :** Review ER-RCC.2

Conditions :

Standards : Same as element

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

2 **Element :** Align Step counter

Conditions :

Standards : Locate CBD Group 1&2 step counters. Verify they are equal. If Not then step Rods out 1/2 step.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

3 **Element :** Record Step Count

Conditions :

Standards : Records CBD step count for later reference.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*4 **Element :** **CRITICAL** Place Rod Selector Switch to the affected Bank

Conditions :

Standards : Locate Selector Switch and place to the CBD position

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

5 **Element :** Notify I&C to switch P/A converter to the Bank D poition and record reading

Conditions :

Standards : Same as element

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*6 **Element :** **CRITICAL** Disconnect a lift coils for the affected bank except for the misaligned rod

Conditions :

Standards : Locate Lift Coil Disconnects. Disconnect all Bank D Rods except for C-7

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*7 **Element :** **CRITICAL**
Insert affected RCC to one MRPI tranistion below the Bank position

Conditions :
Note: Rod Control Urgent Failure will Come in . This is an expected alarm

Standards :
Locate the In/Out/Hold switch. Insert C-7 till MRPI for C-7 tranistion to one below the rest of bank D. Stop as soon as the tranistion is made.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*8 **Element :** **CRITICAL**
Reconnect all Bank Lift Coils

Conditions :

Standards :
Reconnects all Lift Coils for D Bank

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*9 **Element :** **CRITICAL**
Disconnect Lift Coil for the affected Rod

Conditions :

Standards :
Disconnect the Lift Coil for C-7

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

10 **Element :**
Reset the Urgent Failure Alarm

Conditions :

Standards :
Locate and dpress the alarm reset pushbutton

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*11 **Element :** **CRITICAL**
Insert the affected Bank to the same MRPI tranistion as the affected Rod.

Conditions :

Standards :
Locate the In/Out/Hold switch. Insert bank till MRPI tranistion to the same value as Rod C-7. Stop as soon as the tranistion is made.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*12 **Element :** **CRITICAL**
Reconnect the affected Rod Lift Coil

Conditions :

Standards :
Reconnect the Lift Coil for C-7

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

13 **Element :**
Reset Step Counter for the affected group to match the unaffected group position

Conditions :

Standards :
Locates counter and reset rod position

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element : **CRITICAL**
Withdraw Bank to position recorded in step 4.2.2

Conditions :

Standards :
Locate the In/Out/Hold switch. Withdraw Bank D to the poition previously recorded. Add Boron as necessary for temperature control

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

15 **Element :**
Notifty I&C to reset P/A converter.

Conditions :
CUE: No further actions

Standards :
Same as element

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag

JPM NO JR004.012

Burp the VCT to Remove H2 Prior to a Shutdown (Option 1 normal, Option 2 N2 Regulator Set Incorrectly)

Revision #: 1

Review Date: 7/18/2006

Location: Simulator

Estimated Time (minutes): 20.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: **Satisfactory** _____ **Unsatisfactory** _____

Trainee: _____

Instructor: _____

Submitted By _____ **Date** _____

Reviewed By _____ **Date** _____

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Initial Conditions:

The plant is preparing for a shutdown to replace a Hot leg RTD. Letdown has been increased to 60 gpm to increase RCS cleanup rate.

Initiating Cues :

You have been directed to Burp the VCT to remove H2 per S-3.3C "H2 or O2 removal from the primary system by burping the VCT with N2". Local lineups per Section 5.1 are complete. It is not desired to use the 60 gpm orifice. A NLO is standing by to perform local actions. Current RCS CB is _____ ppm.

Description: Nitrogen Purge The Volume Control Tank (JPM JR004.012)

JPM Tasks

Task ID: 004-008-01-01

Task Standards :

ALIGN N2 to VCT, complete one burp.

Tools :

Terminating Cues

Task Completion

References :

ID		Description	Review Date	Ref Flag
PRO	O-2.2	PLANT SHUTDOWN FROM HOT SHUTDOWN TO COLD CONDITIONS		☐
PRS	S-3.3C	H2 OR O2 REMOVAL FROM PRIMARY SYSTEM BY BURPING VOLUME CONTROL TANK WITH N2		☐

Safety Considerations

Consequences of Inadequate Performance:

General Comments :

Setup simulator at any at power I-C.
Record RCS Boron Concentration in the initiating cue
Option 2 Set N2 Regulator to 14.7 psi LOA CVC60
When called to secure H2 to VCT set LOA CVC 59 to 14.7
When called to check N2 to VCT set LOA CVC 60 to 35psi.
Place 60 GPM letdown in service.

Performance Checklist

1 **Element :** Review S-3.3C.

Conditions :

Standards : Reviews cautions and completed steps.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*2 **Element :** **CRITICAL** Notify NLO to isolate H2 and N2 to VCT.

Conditions :

Standards : Calls AO and instructs 261 and 262 to be closed.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

3 **Element :** Record VCT press.

Conditions :

Standards : Locate meter/record pressure.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*4 **Element :** **CRITICAL** Place 112A to VCT position.

Conditions :

Standards : Locate switch. Place to 112C.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*5 **Element :** **CRITICAL** As VCT pressure increases to ~ 15-20 psi higher then the recorded value from step 5.3.3, open AOV-258. Close 258 when press ~ 5 psi higher than recorded value.

Conditions :

Standards : Locates AOV-258 switch open/closes 258 to maintain pressure.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

6 **Element :** Determine required Boric Acid blend rate.

Conditions :

Standards : Obtain blend rate from PPCS.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*7 **Element :** **CRITICAL**
Open AOV-110C RMW to VCT.

Conditions :

Standards :
Locate switch. Place to open.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*8 **Element :** **CRITICAL**
Place RMW Mode to Borate.

Conditions :

Standards :
Locate switch. Place to borate.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element :
Set Boric Acid integrate to sufficient value.

Conditions :

Standards :
Set to value so that BA does not stop prior to 85% in VCT.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*10 **Element :** **CRITICAL**
Adjust HCV-110A and HCV-111 to value in step 5.3.5.3.1

Conditions :

Standards :
Locate control and adjust as necessary to match values.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*11 **Element :** **CRITICAL**
Open HCV-111.

Conditions :

Standards :
Locate valve. Place to open.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

12 **Element :** **CRITICAL**
Start a RMW pump.

Conditions :

Standards :
Locate switch. Start pump.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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*13 **Element :** **CRITICAL**
Place RMW control to start.

Conditions :
(NOTE: As level increases, the operator vents the VCT per step 5 of the JPM.)

Standards :
Locate switch. Place to start. Verify BA pump starts.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*14 **Element :** **CRITICAL**
When level greater than or equal to 85% stop boration and RMW.

Conditions :

Standards :
Locates controls. Place RMW control to stop. Stop RMW pump.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

15 **Element :**
Place RMW control to stop, stop RMW pump.

Conditions :

Standards :
Locate switches. Place in stop.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

16 **Element :**
Place AOV-110C to Auto.

Conditions :

Standards :
Locate switch. Place in auto.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

17 **Element :**
Place HCV-111 to Auto.

Conditions :

Standards :
Locate switch. Place in auto.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

18 **Element :**
Lineup RMW for Auto Operation

Conditions :

Standards :
RMW mode to Auto
RMW control to start

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

19 **Element :**
Verify VCT vent closed AOV-258

Conditions :
CUE: Pressure Burping is not desired.

Standards :
Locate switch. Verify position or close.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

20 **Element :**
N/A Section 5.3.7

Conditions :

Standards :

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*21 **Element :** **CRITICAL**
Dispatch NLO to open N2 Regulator outlet 262.

Conditions :

Standards :
Calls NLO.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*22 **Element :** **CRITICAL**
Place LCV-112A in HUT position.

Conditions :
NOTE: Option 1 go to step 26.

Standards :
Locate control. Place switch in HUT position.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*23 **Element :** **CRITICAL**
Option 2
When pressure drops below 15 psi, stop diverting water.

Conditions :

Standards :
Monitors pressure when < 15 psi places 112A in VCT position.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

24

Element :	Conditions :	Standards :
Notify NLO to check N2 regulator lineup.	CUE: No further actions	Call NLO to check N2 regulator. NLO adjusts N2 regulator.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag

JPM NO JR006.002

Nitrogen Makeup to Accumulator

Revision #: 8

Review Date: 7/18/2006

Location: Simulator

Estimated Time (minutes): 30.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: **Satisfactory** _____ **Unsatisfactory** _____

Trainee: _____

Instructor: _____

Submitted By _____ **Date** _____

Reviewed By _____ **Date** _____

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Initial Conditions:

The plant is operating at 100 % power. The "A" Accumulator pressure is 705 psig. It has slowly decreased over several days.

Initiating Cues :

The Shift Manager directs you to increase the pressure in the "A" Accumulator to 745 psig (+ or - 10 psig) per S-16.2 using nitrogen cluster "A".

Description: Nitrogen Makeup to Accumulator (JR006.002)

JPM Tasks

Task ID: 006-007-01-01B

Task Standards :

In accordance with the procedure

Without violating Tech Specs

Correctly demonstrating proper use of all applicable HU Tools

Tools :

Procedure

Terminating Cues

Task Completion

References :

ID		Description	Review Date	Ref Flag
PRS	S-16.2	NITROGEN MAKE-UP TO THE SI ACCUMULATORS		☐

Safety Considerations

Lifting of a Relief Valve, High Noise Hazzard

Consequences of Inadequate Performance:

Procedure Violation

Tech Spec Violation

General Comments :

Initialize any at power IC. Open AOV-834A and HCV-945 to decrease Accumulator "A" pressure to <705 psig (PI-941) and alarm C-11 received. Close AOV-834A and HCV-945.

Performance Checklist

1 **Element :**
Obtain a controlled copy of S-16.2 and review caution.

Conditions :

Standards :
Same as element. Review Procedure and ensure correct revision

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*2 **Element :** **CRITICAL**
Open Accumulator AOV-834A

Conditions :

Standards :
Switch to open demonstrating Proper Touch STAR

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*3 **Element :** **CRITICAL**
Open Auxiliary Building N2 Supply Valve, AOV-846.

Conditions :

Standards :
Switch to open demonstrating Proper Touch STAR

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

4 **Element :**
Recognize Step 5.3 complete and initial step.

Conditions :
Instructor initial as SS.

Standards :

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*5 **Element :** **CRITICAL**
Establish communication with the AO. Direct AO to perform/verify the following valve manipulation:

Conditions :
(Booth instructor respond as AO.)

Standards :
Demonstrate Proper 3-way communications

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

6

Element :
Direct AO to verify Cluster A, B, C valves closed; V-1803A, B, C.

Conditions :
CUE: Respond that valves are closed.

Standards :
Demonstrate Proper 3-way communications

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*7

Element : **CRITICAL**
Direct AO to open "A" Cluster Valve, V-1806A.

Conditions :
CUE: Respond that V-1806A is open.

Standards :
Demonstrate Proper 3-way communications

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

8

Element :
Ask AO what cluster pressure is and record.

Conditions :
CUE: Respond that "A" Cluster pressure is 2000 psig.

Standards :
Demonstrate Proper 3-way communications

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*9

Element : **CRITICAL**
Direct AO to open V-1805A.

Conditions :
CUE: Respond that V-1805A is open and 944C is operable

Standards :
Demonstrate Proper 3-way communications

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

10

Element :
Direct AO to verify regulator discharge pressure is < 755 psig.

Conditions :
CUE: Respond that regulator pressure is 750 psig.

Standards :
Demonstrate Proper 3-way communications

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*11

Element : **CRITICAL**
Direct AO to open V-944D.

Conditions :
Booth Operator:Set LOA SIS6 at 2500.0 to get pressure increase and report V-944D is open.

Standards :
Demonstrate Proper 3-way communications

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*12 **Element :** **CRITICAL**
When accumulator pressure reaches 750 psig, direct AO to close N2 Supply Valve, V-944D.

Conditions :
NOTE: The N2 supply valves must be closed before AOV-846 or the N2 relief valve will lift.

Booth Operator: LOA SIS6 set at 0 and report V-944D is closed.

Standards :
Observation of Accumulator Pressure.
Demonstrate Proper 3-way communications

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

13 **Element :**
Direct AO to close V-1805A.

Conditions :
CUE: V-1805A is closed.

Standards :
Demonstrate Proper 3-way communications

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

14 **Element :**
Direct AO to report cluster pressure.

Conditions :
CUE: Cluster "A" pressure is 1000 psig.

Standards :
Demonstrate Proper 3-way communications

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

15 **Element :**
Direct AO to close V-1806A.

Conditions :
CUE: Respond that V-1806A is closed.

Standards :
Demonstrate Proper 3-way communications

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*16 **Element :** **CRITICAL**
Close Auxiliary Building N2 Stop Valve, AOV-846.

Conditions :

Standards :
Switch to closed demonstrating Proper Touch STAR

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

*17 **Element :** **CRITICAL**
Close Accumulator Fill Valve, AOV-834A.

Conditions :
CUE: No further action.

Standards :
Switch to closed demonstrating Proper Touch STAR

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag

JPM NO JR003.001

Perform Attachment RCP Start (Option 1 No Faults, Option 2 Seal Failure on Pump Start, Option 3 No CCW Cooling in Operation)

Revision #: 7

Review Date: 3/31/2006

Location: Simulator

Estimated Time (minutes): 14.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: **Satisfactory** _____ **Unsatisfactory** _____

Trainee: _____

Instructor: _____

Submitted By _____ **Date** _____

Reviewed By _____ **Date** _____

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Initial Conditions:

The plant experienced a small break LOCA. E-0 was performed and a transition made to E-1, then to ES-1.2. Busses 11A & 11B are energized.

Initiating Cues :

The CRF directs you to start the RCP "A" per ES-1.2, Step 11D.

Description: Perform Attachment RCP Start (JR003.001)

JPM Tasks

Task ID: 003-001-05-01A

Task Standards :

RCP started

Tools :

Procedure

Terminating Cues

Task Completion

Trainee States Task is Completed

References :

ID		Description	Review Date	Ref Flag
PRES	ES-1.2	POST LOCA COOLDOWN AND DEPRESSURIZATION		☐

Safety Considerations

Consequences of Inadequate Performance:

Mitigation of the LOCA may be delayed.

General Comments :

OPTION 1:
1) Any full power IC (19).
2) Insert MALF RCS2A,B,C or D at 2000 gpm. Perform E-0, E-1, ES-1.2 to step 11. Trip both RCP's. Depressurize until Przr level >13% (40% adverse). Reduce leak to 1000 gpm after Przr level achieved.
3) Ensure Annunciators A-24 and A-7 extinguished.

OPTION 2:
1) Same conditions as above.
2) Insert MALF RCS12A (200 gpm, 0, 0) as conditional after RCPs are tripped. (JMRCS12A=WRCSOG(1).GT.8000).

OPTION 3:
1) Any full power IC
2) Insert malfunction MALF RCS2A , 2000 gpm
3) Insert MALF EDS6
4) Complete E-0, E-1, ES-1.2 to step 11
5) Clear MALF EDS6
6) Restore off-site power (clear EDS6) per ER-ELEC.1
7) Verify CCW pump off

Performance Checklist

1 **Element :**
Obtain copy of Attachment RCP START.

Conditions :

Standards :
Same as element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

2 **Element :**
Observes caution at start of attachment.

Conditions :

Standards :
Same as element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*3 **Element :** **CRITICAL**
Start RCP Lift Oil Pump.

Conditions :

Standards :
Run for 2 minutes before start RCP.
Verify Oil Lift Pressure Light is lit. (Locate lights, verify lit)

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

4 **Element :**
Verify Przr Spray Valves closed.

Conditions :

Standards :
Locate controllers.

Verify demand indicator at 0%.
Verify valve position green lights lit.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element :
CCW in service to "A" RCP with CCW temperature and flow alarms extinguished.

Conditions :

Standards :
Option 1: Verify CCW Pump running.
Verify alarm A-7 extinguished.
Option 3 Refers to Attachment 15.2 to restore CCW.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

6 **Element :**
Option 3 Only: Reviews Caution and Note at beginning of Attachment 15.2

Conditions :

Standards :
Same As Element

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element :
Option 3 Only: Verify Seal injection is in service

Conditions :

Standards :
Locate Seal Injection flow meter Verify Flow to RCP Seal Injection

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

8 **Element :**
Option 3 Only: Check adequate power avalible to run CCW pump.

Conditions :

Standards :
Determine offsite power avaliable. Locates 14/16 Normal Feed Breaker and verifies closed

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*9 **Element :** **CRITICAL**
Option 3 Only: Start one CCW Pump

Conditions :
Note: which pump is started is not critical

Standards :
Locates Pump switch, operates swith to start pump.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element :
Option 3 Only: Verify MOV-817 open

Conditions :

Standards :
Locates Valve , Verifies Position

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

11 **Element :**
Option 3 Only: Verify MOVs 749A and 754A are Open

Conditions :

Standards :
Locates Valve , Verifies Position

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

12 **Element :**
Option 3:Verify MOV-759A open

Conditions :

Standards :
Locate Valve Indication

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

13 **Element :**
Option 3 Detemine that Seal Injection is in service return to Att 15.0 .

Conditions :

Standards :
Same As Element

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

14 **Element :**
"A" RCP Seal Inlet < 135 degrees.

Conditions :

Standards :
Locate Meters, verify < 135 degrees F.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

15 **Element :**
"A" RCP Motor Bearing temperature < 200 degrees.

Conditions :

Standards :
At PPCS select GD RCPS and verify motor bearing temperature "GREEN" or use recorder if selected.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

16 **Element :**
Injection flow > 6 gpm.

Conditions :

Standards :
Locate meter. Verify > 6 gpm.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

17 **Element :**
Lab Seal d/p > 15 inches of water.

Conditions :

Standards :
Locate meter. Verify > 15".

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

18 **Element :**
Verify "A" RCP #1 Seal d/p > 220 psid.

Conditions :

Standards :
Locate meter. Verify > 220 psid.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

19 **Element :**
RCP Oil Level alarm extinguished.

Conditions :

Standards :
Alarm A-24 extinguished.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

20 **Element :**
RCP Oil Level indicator on scale.

Conditions :

Standards :
Locate meter. Verify on scale.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element :
Open/check open RCP Seal Outlet Valve, AOV-270A.

Conditions :

Standards :
If valve closed, open.

If valve open, verify open.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

22 **Element :**
If MOV-313 OPEN:

-Verify VCT pressure >15 psig.

- Verify #1 Seal Leakoff within the Normal Operating Range of Figure RCP SEAL LEAKOFF.

-"A" RCP Standpipe low level alarm extinguished.

Conditions :

Standards :
- Locate valve switch. Verify position.
- Locate meter. Verify > 15 psig.
- Obtain figure. Locate meter. Verify flow within acceptable range of the graph.

-Alarm B-11 extinguished.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element :
If MOV-313 CLOSED:

- Verify #1 Seal Inlet temperature.

-Verify #1 Seal d/p.

Conditions :

Standards :

-Verify temperature < 135 degrees.

-Verify seal d/p > 220 psid.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*24 **Element :** <u>CRITICAL</u>
Start "A" RCP.

Conditions :
CUE: (If notifies CRF that RCP is ready) Start "A" RCP.

Standards :
-Notify CRF ready to start RCP (not critical to task).

-Switch to start.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element :
Observes indications.

Conditions :
OPTIONS 1 & 3
CUE: No further action.

Standards :
Same as element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*26 **Element :** **CRITICAL**
OPTION 2:

Observes seal failure conditions and stops RCP.

Conditions :
CUE: No further action.

Standards :
OPTION 2: Same as element. (May refer to AR's and AP-RCP.1.)

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

JPM NO JR103.007

Manually Close CNMT Isolation Valve on CI Failure (Option 1 no faults, Option 2 MOV 313 cannot be closed remotely)

Revision #: 0

Review Date: 4/1/2006

Location: Simulator

Estimated Time (minutes): 5.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: **Satisfactory** _____ **Unsatisfactory** _____

Trainee: _____

Instructor: _____

Submitted By _____ **Date** _____

Reviewed By _____ **Date** _____

NOTE

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Initial Conditions:

An SI occurred while the plant was at 100% power. While performing E-0 it was determined that Containment Isolation failed to actuate.

Initiating Cues :

Verify Containment Isolation in accordance with Step 12 of E-0.

Description: Respond To Containment Isolation

JPM Tasks

Task ID: 103-002-04-01

Task Standards :

All bright/dim status lights indicate bright (all CI and CVI valve close) or manual actions initiated to close valves outside the control for those valves that cannot be closed from the Control Room.

Tools :

Terminating Cues

All valves closed or actions initiated to close alternate isolation valves.

References :

ID		Description	Review Date	Ref Flag
PRAR	AR-A-26	CONTAINMENT ISOLATION		☐

Safety Considerations

Consequences of Inadequate Performance:

Failure to isolate CNMT will result in exceeding 10CFR100 Dose Limits for accidents.

General Comments :

1) Setup IC-19.
2) Insert malfunction MALF RPS6
3) Option 2 Insert SW OVR CVC41C off. MOV 313 cannot be operated from the MCR.
4) Insert MALF RCS2A DBLOCA
5) Complete E-0 up to step 12.

Performance Checklist

1 **Element :**
Review E-0 step 12

Conditions :

Standards :
Same as Element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

2 **Element :**
Check Annunciator A-25/26.

Conditions :

Standards :
Locate Annunciators. Determine not lit. Locate CI pushbutton and depress.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*3 **Element :** **CRITICAL** **Conditions :** **Standards :**

Check CI/CVI status lights bright.

Determine all lights not bright.
- Close affected valves by placing switch to close or Close/remote switch to close.

Close the following valves:
-AOV 1789 RCDT to Gas Analyizer
-AOV 1788 RCDT to Vent Header
-AOV 1787 RCDT to Vent Header
-AOV 1721 RCDT Outlet
-MOV 813 CCW to RX Support Coolers
-MOV 814 CCW from Rx Support Coolers
-AOV 371 Letdown Line Isolation
Note: if option 2 is being used MOV 313 will be closed by step 4
-MOV 313 RCP Seal Return
-AOV 5392 IA to CNMT
-AOV 5738 S/G A Blowdown Isol.
-AOV 5737 S/G B Blowdown Isol.
-AOV 5735 S/G A Sample Isol.
-AOV 5736 S/G B Sample Isol.

Per Attachment 3.0
- Pull stop CNMT sump pumps.
- Dispatch AO to close 1723/1728 locally.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

*4 **Element :** **CRITICAL**
OPTION 2
Determine MOV-313 cannot be closed.

Conditions :

Standards :
Per Attachment 3.0
- Dispatch AO to close V-315A and V-315C locally.
NOTE: If AO dispatched to locally close MOV-313 the critical step is not met.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

5 **Element :**
Verify CNMT Fan Cooler Status Light - Bright.

Conditions :

Standards :
Locate lights. Verify bright.
-AOV 4561
-AOV 4562

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element :
Verify Letdown Orifice valves closed.

Conditions :

Standards :
Locate valve indications and verify closed.

CUE: No further actions.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag

JPM NO JR064.002

Start and Load the Emergency Diesel Generator (PT-12.1)

Revision #: 14

Review Date: 4/18/2006

Location: Simulator

Estimated Time (minutes): 10.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: **Satisfactory** _____ **Unsatisfactory** _____

Trainee: _____

Instructor: _____

Submitted By _____ **Date** _____

Reviewed By _____ **Date** _____

NOTE

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Initial Conditions:

A surveillance test of the "A" EDG is due following minor maintenance. PT-12.1 Emergency Diesel Generator A has been intiated and is complete up to step 6.10.20. The DG is running and ready to be loaded. The Plant is at 100% power.

Initiating Cues :

Load the A DG in accordance with PT-12.1 starting at step 6.10.21.

Description: Start and Load the Emergency Diesel Generator (PT-12.1)

JPM Tasks

Task ID: 064-009-02-01A

Task Standards :

Perform the Surveillance Test IAW PT-12.1

Tools :

Terminating Cues

Option 1: D/G has been loaded to 2050KW (+25 -0) with power factor of approximately .9.
Option 2: Option 1 critera met plus D/G correctly aligned for post SI operation.

References :

ID		Description	Review Date	Ref Flag
PRPT	PT-12.1	EMERGENCY DIESEL GENERATOR A		☐

Safety Considerations :

Consequences of Inadequate Performance:

Failure to correct perform the test could result in undectected inoperably of the D/G. Incorrect performance can also result in damage to the D/G and/or its associated electrical equipment.

General Comments :

Initialize any stable at power IC. Verify selected A/C Service Water Pump is not running. (ie, "C" running, "A" secured, "C" selected) Place synchroscope in "B" D/G position and turn off D/G voltmeter and ammeter.
Copy of PT-12.1 ready. Start the DG per PT-12.1. Complete PT up tp step 6.10.20

Option 2: SI occurs following loading to max load; Insert OVR-RPS04, ON, Trains Trigger 1
When max load is reached insert Trigger 1

Performance Checklist

1 **Element :** Procedure

Conditions : CUE: Provide copy of PT-12.1.

Standards :

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

2 **Element :** Review precautions.

Conditions :

Standards : Same as element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*3 **Element :** **CRITICAL** Place Unit/Parallel Switch in Parallel.

Conditions :

Standards : Locate switch, place in parallel

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*4 **Element :** **CRITICAL** Select bus 18 with synchroscope.

Conditions :

Standards : Locate switch, place in Bus 18 position

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*5 **Element :** **CRITICAL** Adjust Generator voltage to 5 to 10 volts above Running voltage.

Conditions :

Standards : Locate Auto voltage control, adjust as necessary.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*6 **Element :** **CRITICAL** Adjust Governor Control so that synchroscope is turning slowly in the fast direction. (2 - 5 rpm on synchroscope)

Conditions :

Standards : Adjusts speed slowly and observes synchroscope for proper indications of 2 - 5 rpm.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*7 **Element :** **CRITICAL**
Close selected breaker, pick up 300-500 KW.

Conditions :

Standards :
Ensures synchroscope turning slowly in the fast direction. Closes breaker slightly before 12 o'clock. Picks up proper load. Proceeds to next 2 steps without delay.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

8 **Element :**
Maintain power factor at approximately .9 Lagging.

Conditions :

Standards :
Adjust the AUTO voltage controller to maintain power factor between .85 and .95 per precautions.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*9 **Element :** **CRITICAL**
Select other synchroscope position, close other breaker.

Conditions :
CUE: Maintenance performed was not major.

NOTE: Examinee should N/A Step 6.17.

Standards :
Locate switch, place to Bus 14 position. Locate and close Bus 14 breaker

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*10 **Element :** **CRITICAL**
Load to 2050 KW (+25, -0).

Conditions :

Standards :
Locate the governor control raise to pick up load evenly, approximately 500 KW every 30 seconds.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

11 **Element :** Records time 2050 KW attained.

Conditions :

Standards : Same as element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

12 **Element :** Maintains approximately .9 Lagging power factor during load changes.

Conditions : CUE:Option 1 No further action.

Standards : Maintains between .85 and .95 per precautions.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

13 **Element :** Option 2: Inadvertant SI

Conditions : CUE: SI has just occured the CRS direct you to perform required Emergency D/G actions

Standards : References attachment 8 of PT-12.1

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

14 **Element :** Reviews actions of attachment 8

Conditions : Reviews step 1-3 of attachment

Standards : Same as element

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*15 **Element :** **CRITICAL** Adjust D/G voltage to Approximately 480 Volts

Conditions :

Standards : Locate Auto Voltage Contol for the A D/G. Adjusts control to lower voltage to approximately 480 Volts on the output voltmeter.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

16 **Element :** Verify that the SI sequence is complete.

Conditions :

Standards : Checks to verify that all the sequencer loads have started

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*17 **Element :** **CRITICAL**
Transfer the A D/G governor to Unit mode of operation

Conditions :

Standards :
Locates Unit/Parallel switch and transfer it to Unit

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*18 **Element :** **CRITICAL**
Adjust A D/G Speed

Conditions :

Standards :
Locates Frequency meter and Governor speed control. Adjusts governor speed control to lower frequency to approximately 60 Hz

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

19 **Element :**
Notify CRS that attachment 8 is complete

Conditions :
CUE: No further actions

Standards :
Notifies CRS

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag

JPM NO JR012.001

Defeat a Failed Przr Pressure Channel

Revision #: 8

Review Date: 7/18/2006

Location: Simulator

Estimated Time (minutes): 12.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: **Satisfactory** _____ **Unsatisfactory** _____

Trainee: _____

Instructor: _____

Submitted By _____ **Date** _____

Reviewed By _____ **Date** _____

NOTE

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Initial Conditions:

The plant was operating at ____% power when PI-429 failed high. The operators took appropriate actions.

Initiating Cues :

PT-429 failed high. The operators took all appropriate actions. The Shift Supervisor directs you to defeat the failed Przr instrument channel per ER-INST.1, Step 4.4.5. A Turbine Runback did not occur.

Description: Defeat a Failed Przr Pressure Channel (JR012.001)

JPM Tasks

Task ID: 012-006-01-01E

Task Standards :

Tools :

Terminating Cues

References :

ID		Description	Review Date	Ref Flag
PRER	ER-INST.1	REACTOR PROTECTION BISTABLE DEFEAT AFTER INSTRUMENTATION LOOP FAILURE		☐

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

At power IC. Insert MALF PZR2A, close MOV-516 PORV Block Valve per ER-INST.1 Step 4.4.3.

Performance Checklist

1	**Element :** Obtain controlled copy of ER-INST.1.	**Conditions :**	**Standards :** Same as element.
	Comments :		
	Satisfactory ☐	**Unsatisfactory** ☐	
2	**Element :** Refer to appropriate section of ER-INST.1,Step 4.4.5.	**Conditions :**	**Standards :** Same as element.
	Comments :		
	Satisfactory ☐	**Unsatisfactory** ☐	
3	**Element :** Verify P/429A defeat in normal position.	**Conditions :**	**Standards :** Go to PLP Rack. Verify P/429A in Normal position.
	Comments :		
	Satisfactory ☐	**Unsatisfactory** ☐	
*4	**Element :** **CRITICAL** Place switch T-405E to Loop A - Unit 1.	**Conditions :**	**Standards :** Go to RIL Rack, unlock and open door. Shift switch from operate to Unit #1. Go to R-1 Protection Channel #1 cabinet, unlock and open door.
	Comments :		
	Satisfactory ☐	**Unsatisfactory** ☐	
*5	**Element :** **CRITICAL** Trip bistable Overtemperature Trip. 405 Loop A-1	**Conditions :**	**Standards :** Pull and lift switch.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*6 **Element :** **CRITICAL**
Trip bistable for High Pressure trip. 429 Channel 1

Conditions :

Standards :
Pull and lift switch.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*7 **Element :** **CRITICAL**
Trip Bistable for Low Pressure trip 429 Channel 1

Conditions :

Standards :
Pull and lift switch.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element : **CRITICAL**
Trip bistable for SI.429 Channel 1

Conditions :

Standards :
Pull and lift switch.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*9 **Element :** **CRITICAL**
Trip bistable for Unblock SI. 429 Channel 1

Conditions :

Standards :
Pull and lift switch.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*10 **Element :** **CRITICAL**
Place proving switch P/429B to Defeat (UP) in PLP Rack.

Conditions :

Standards :
In PLP Rack place P/429B switch to Defeat.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

11 **Element :**
Place Przr Pressure Recorder switch to Position 1-3.

Conditions :

Standards :
Place switch on MCB to position 1-3.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

12 **Element :** Verify Bistable Status Lights

Conditions : CUE: No Further Action

Standards : Same as Elemment

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

JPM Questions

Question J012.001A

Explain why it is necessary to place Delta-T defeat in Loop A Unit One for a failure of PRZR pressure channel PT-429.

Answer

PT-429 supplies an input for one overtemperature Delta-T setpoint calculation. (Since a PRZR pressure channel is failed, the affected OT Delta-T rod stop and runback channel is bypassed from rod stop and runback.) (This also bypasses the associated OP De

References

Reference Type	Reference ID	Description	Ref Flag
SD	RGE-20	REACTOR COOLANT TEMPERATURE INSTRUMENT SYSTEM	X

Question J012.001B

Explain how you would select a good channel for PRZR Pressure Control if currently selected channel failed.

Answer

(Refer to ER-INST.1.) Select (position associated with) an operable channel on (PRZR pressure ınsfer) switch in PLP Rack.

References

Reference Type	Reference ID	Description	Ref Flag
PRER	ER-INST.1	REACTOR PROTECTION BISTABLE DEFEAT AFTER INSTRUMENTATION LOOP FAILURE	X

Question J012.001C

What is the logic and setpoint for Low PRZR Pressure reactor trip and Low PRZR Pressure SI?

Answer

Rx Trip - 2/4, 1873 psig
SI - 2/3, 1750 psig

References

Reference Type	Reference ID	Description	Ref Flag
SD	RGE-19	PRESSURIZER PRESSURE AND LEVEL CONTROL SYSTEM	X

JPM NO JR029.001

Startup the Containment Mini Purge

Revision #: 2

Review Date: 5/8/2006

Location: Simulator

Estimated Time (minutes): 8.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: **Satisfactory** _____ **Unsatisfactory** _____

Trainee: _____

Instructor: _____

Submitted By _____ **Date** _____

Reviewed By _____ **Date** _____

NOTE

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Initial Conditions:

A routine Cnmt entry is required tomorrow.

Initiating Cues :

The Shift Manager directs you to place Mini Purge System in service. A Containment Mini-Purge Release has been initiated and SM & RP approvals have been received.

Description: Startup the Containment Mini Purge (JR029.001)

JPM Tasks

Task ID: 029-007-01-01A

Task Standards :

Tools :

Terminating Cues

References :

ID		Description	Review Date	Ref Flag
PRS	S-23.2.3	CONTAINMENT MINI-PURGE SYSTEM OPERATION		☐

Safety Considerations

Consequences of Inadequate Performance:

General Comments :

Verify Mini-Purge is secured in IC, may be performed at any operating IC.
Fill out a S-23.2.3 with the initial conditions signed off.
Option 2: When Mini Purge is started, ramp R-14 up to 3E5 CPM MALF RMS02D, 3E5, 120 sec ramp.

Performance Checklist

1 **Element :** Procedure

Conditions : CUE: Hand student a copy of S-23.2.3.

Standards :

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

2 **Element :** Reviews precautions.

Conditions :

Standards : Same as element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

3 **Element :** Verify Mini Purge Roof Vent Isolation Valve, V-7479, locked closed.

Conditions : CUE: Report V-7479 locked closed.

Standards : Direct AO to verify.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*4 **Element :** **CRITICAL** Open Mini Purge Exhaust Valve, AOV-7970.

Conditions :

Standards : Shift switch to open.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*5 **Element :** **CRITICAL** Open Mini Purge Exhaust Valve, AOV-7971.

Conditions :

Standards : Rotate switch to open.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element : **CRITICAL** Open Mini Purge Supply Valve, AOV-7478.

Conditions :

Standards : Rotate switch to open.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*7 **Element :** **CRITICAL**
Open Mini Purge Supply Valve, AOV-7445.

Conditions :

Standards :
Rotate switch to open.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

8 **Element :**
Observe note before 5.1.6.

Conditions :

Standards :

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element : **CRITICAL**
Start "A" Mini Purge Supply and verify Containment pressure increase.

Conditions :
CUE: Containment pressure has increased slightly and stabilized.

Standards :
Rotate switch to run.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

10 **Element :**
Recognize R-14 Alarm

Conditions :

Standards :
Acknowledges alarms. Refers to precaution in S-23.2.3 or AR for R-14 alarms.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*11 **Element :** **CRITICAL**
Determine Mini-Purge. Must be shutdown

Conditions :

Standards :
Same as Element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element : **CRITICAL**
Stop Mini-Purge Blower 1A.

Conditions :

Standards :
Same as Element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*13 **Element :** **CRITICAL**
Closes supply valves 7478 and 7445.

Conditions :

Standards :
Same as Element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*14 **Element :** **CRITICAL**
Closes exhaust valves 7970 and 7971.

Conditions :

Standards :
Same as Element.
CUE: No further actions.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

JPM NO JN086.002

Secure Ventilation Systems During a Fire

Revision #: 1

Review Date: 7/19/2006

Location: Int Bldg-Hot

Estimated Time (minutes): 10.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: **Satisfactory** _____ **Unsatisfactory** _____

Trainee: _____

Instructor: _____

Submitted By _____ **Date** _____

Reviewed By _____ **Date** _____

NOTE

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Initial Conditions:

A fire has occurred on the intermediate floor of the Auxiliary Building. The operators are responding per procedure FRP-5.0, Auxiliary Building (AB) Intermediate Floor. The Auxiliary Building Ventilation system is in operation.

Initiating Cues :

The Shift Manager has directed you to secure ventilation in accordance with FRP-5.0, Step 1.5.

Description: Respond To A Plant Fire On Site

JPM Tasks

Task ID: 086-001-04-01

Task Standards :

Ventilation fans specified in Step 1.5 are shutdown.

Tools :

Hearing Protection

Safety Glasses

Hard Hat

Terminating Cues

Task Completion

References :

ID		Description	Review Date	Ref Flag
PRFRP	FRP-5.0	AUXILIARY BUILDING INTERMEDIATE FLOOR		☐

Safety Considerations

Consequences of Inadequate Performance:

Spreading of smoke and fire in the plant.

General Comments :

Performance Checklist

1 **Element :**
Review FRP-5.0 Step 1.5.

Conditions :

Standards :
Same as Element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*2 **Element :** **CRITICAL**
Secure the "C" AB Exhaust Fan.

Conditions :

Standards :
Proceed to Fan Control Intermediate Building Top Level
Simulate securing fan.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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3 **Element :**
Verify AB A AHU and AB B Supply are off.

Conditions :

Standards :
Proceed to Vent Control Panel (by Controlled Access Door).
CUE: Lights are green.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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*4 **Element :** **CRITICAL**
Place Master Vent Control to "off".

Conditions :

Standards :
Locate switch on Control Panel.
Simulate placing to "Off".
Verify the following fans stopped:
- 1B Exhaust A/B
Red light off at Vent Panel
CUE Light is off
- 1B Exhaust C
Check for Air Flow at grate outside change room (Hot Shop)
CUE: No Air Flow
- CA Exhaust A/B
Green Light on (Vent Panel)
CUE: light is green
- AB Exhaust F
CUE:Red Light off on Vent Panel

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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*5 **Element :** **CRITICAL**
Secure the AB Main Exhaust Fans A and B

Conditions :

Standards :
Locate Controls of Vent panel.
Simulate securing fans.
Cue Lights are green

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

*6 **Element :** **CRITICAL**
Secure the G Fan.

Conditions :

Standards :
Proceed to Control (East end SFP). Simulate stopping fan.
CUE: Fan Stops.

CUE: No further actions.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag

JPM NO JC035.006

Perform ATTACHMENT RUPTURED STEAM GENERATOR PART B

Revision #: 6

Review Date: 7/19/2006

Location: Turb Bldg

Estimated Time (minutes): 12.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: **Satisfactory** _____ **Unsatisfactory** _____

Trainee: _____

Instructor: _____

Submitted By _____ **Date** _____

Reviewed By _____ **Date** _____

NOTE

THE EVALUATOR WILL EXPLAIN THE JPM INITIAL CONDITIONS AND PROVIDE CLARIFICATION AS REQUIRED. THE EXAMINEE MAY USE ANY CONTROLLED COPY REFERENCES THAT ARE NORMALLY AVAILABLE IN THE CONTROL ROOM, INCLUDING LOGS. MAKE ALL WRITTEN REPORTS, ORAL REPORTS, AND LOG ENTRIES AS IF THE EVOLUTION WAS ACTUALLY BEING PERFORMED. THE EVALUATOR WILL BE TAKING NOTES. ASK FOR CLARIFICATION OF JPM REQUIREMENTS PRIOR TO THE BEGINNING OF JPM PERFORMANCE.

Initial Conditions:

The plant has experienced a Steam Generator tube rupture. The plant is in procedure E-3, STEAM GENERATOR TUBE RUPTURE. The MSIV cannot be closed.

Initiating Cues :

Plant is in E-3, STEAM GENERATOR TUBE RUPTURE. You have been directed to complete RUPTURED STEAM GENERATOR ATTACHMENT PART B. Do not operate any plant equipment. Simulate use of ladders as appropriate.

Description: ATTACHMENT RUPTURED STEAM GENERATOR PART B (JC035.006)

JPM Tasks

Task ID: 035-010-05-01A

Task Standards :

In accordance with the procedure

Tools :

Terminating Cues

Trainee States Task is Completed

Task Completion

References :

ID		Description	Review Date	Ref Flag
PRATT	ATT-16.0	ATTACHMENT RUPTURED S/G		☐
PRE	E-3	STEAM GENERATOR TUBE RUPTURE		☐

Safety Considerations :

Safety Glasses
Hearing Protection
Hard Hat
Safety Shoes
Leather Gloves

Consequences of Inadequate Performance:

Spread of contamination

Increased difficulty mitigating tube rupture

General Comments :

- Provide copy of ATT-16.0.
- Should provide laser pointer.

Performance Checklist

	Element :	Conditions :	Standards :
1	NOTE	NOTE: Evaluator supply copy of attachment. Should supply laser pointer for hot/hard to access spots.	

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

	Element :	Conditions :	Standards :
2	Proceed to Turbine Bldg.		Same as element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

	Element : CRITICAL	Conditions :	Standards :
*3	Close MFW Regulating Valve and Bypass Valve Manual Isolation Valves. - S/G A, V-3985, V-3989 - S/G B, V-3984, V-3988	NOTE: May allow laser for 3989/3988. CUE:(If student requests eSOMS location) eSOMS gives valve location at: TB MEZZ, FEED REG VALVE AREA, ELEV (3985,3984=6),(3989,3988=3) CUE: The valve no longer turns in that direction.	- Locate valves. - Simulate closing.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

	Element : CRITICAL	Conditions :	Standards :
*4	Close Reheat Steam Chain Valves. - V-3551 (1A MSR) - V-3550 (1B MSR) - V-3553 (2A MSR) - V-3552 (2B MSR)	CUE: the valve no longer turns in that direction. CUE:(If student requests eSOMS location) eSOMS gives valve location at: TB MEZZ, #1 MSR's AREA, ELEV 12	- Locate valves. - Simulate closing.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

*5

Element : **CRITICAL**
Close Steam Dump Header Isolation and Bypass Valves.
- V-3532 and V-3659
- V-3533 and V-3658

Conditions :
CUE: The valve no longer turns in that direction.

NOTE: May allow laser to preclude climbing over hot pipes.

CUE: (If student requests eSOMS location) eSOMS gives valve location at: TB MEZZ, MAIN STEAM HEADER AREA, ELEV 10

Standards :
- Locate valves.
- Simulate closing.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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*6

Element : **CRITICAL**
Close Reheat Steam Line Warmup Valves.
- V-3645
- V-3646
- V-3647
- V-3648

Conditions :
CUE: the valve no longer turns in that direction.

NOTE: May allow laser for 3645/3646.

CUE: (If student requests eSOMS location) eSOMS gives valve location at: TB MEZZ, #1MSR's AREA (for valves 3645 ELEV 8, & 3646 ELEV 9), # MSR's AREA (for valves 3647 ELEV 5, & 3648 ELEV 4)

Standards :
- Locate valves.
- Simulate closing.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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*7

Element : **CRITICAL**
Close Reheat Steam Line Common Vent.
- V-8500

Conditions :
CUE: the valve no longer turns in that direction.

CUE:(If student requests eSOMS location) eSOMS gives valve location at: TB MEZZANINE LP HEATER A DRAINS AREA, ELEV 6

Standards :
- Locate valve.
- Simulate closing.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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*8 **Element :** **CRITICAL**
Close Steam to Trap header Isolation Valves.
- V-8513
- V-8529
- V-3596
- V-3598

Conditions :
CUE: The valve no longer turns in that direction.

CUE:(If student requests eSOMS alve location at: TB MEZZANINE MAIN STEAM HEADER AREA, ELEV 6 (for 8513), TB MEZZANINE TURBINE OIL RESERVOIR AREA, ELEV 6 (for valves 8529, 3596, 3598)

Standards :
- Locate valves.
- Simulate closing.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

Element :
Report completion to Control Room.

Conditions :
NOTE: Acknowledge radio communication.

CUE: No further action.

Standards :
Same as element.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag

JPM NO JN071.002

Release the "A" Gas Decay Tank

Revision #: 1

Review Date: 7/19/2006

Location: Aux Bldg

Estimated Time (minutes): 20.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: **Satisfactory** _____ **Unsatisfactory**_____

Trainee: _____

Instructor: _____

Submitted By _____ **Date** _____

Reviewed By _____ **Date** _____

NOTE

THE EVALUATOR WILL EXPLAIN THE JPM INITIAL CONDITIONS AND PROVIDE CLARIFICATION AS REQUIRED. THE EXAMINEE MAY USE ANY CONTROLLED COPY REFERENCES THAT ARE NORMALLY AVAILABLE IN THE CONTROL ROOM, INCLUDING LOGS. MAKE ALL WRITTEN REPORTS, ORAL REPORTS, AND LOG ENTRIES AS IF THE EVOLUTION WAS ACTUALLY BEING PERFORMED. THE EVALUATOR WILL BE TAKING NOTES. ASK FOR CLARIFICATION OF JPM REQUIREMENTS PRIOR TO THE BEGINNING OF JPM PERFORMANCE.

Initial Conditions:

The plant is operating with a small fuel leak. The "A" GDT is full and must be released per the release permit.

Initiating Cues :

Release the "A" GDT per S-4.2.5, Release of Gas Decay Tank.

Description: Conduct an Authorized Gas Release

JPM Tasks

Task ID: J071-003-01-01

Task Standards :

Conduct the release in accordance with S-4.2.5 Release of a GDT.

Tools :

Hard Hat

Safety Glasses

Hearing Protection

Dosimetry

Terminating Cues

Task Completion

References :

ID		Description	Review Date	Ref Flag
PRS	S-4.2.5	RELEASE OF GAS DECAY TANK		☐

Safety Considerations :

Consequences of Inadequate Performance:

Exceeding release rates specified by permit

General Comments :

Develop a gas release with a release rate less than the maximum.

Performance Checklist

1	**Element :** Review procedure.	**Conditions :**	**Standards :** Same as Element. CUE: Give candidate copy of procedure complete up to step 5.0.1 and release form.
	Comments :		
	Satisfactory ☐	**Unsatisfactory** ☐	
*2	**Element :** **CRITICAL** Verify Closed inlet to A GDT PCV-1036A.	**Conditions :**	**Standards :** Locate control. CUE: Block Tag is Installed on the control. CUE: Green light lit Location Waste Panel
	Comments :		
	Satisfactory ☐	**Unsatisfactory** ☐	
*3	**Element :** **CRITICAL** Verify Closed GDT Reuse Valve AOV-1629.	**Conditions :**	**Standards :** Locate control. Location Waste Panel
	Comments :		
	Satisfactory ☐	**Unsatisfactory** ☐	
4	**Element :** Verify GDT A outlet to Gas Analyzer PCV-1036B closed	**Conditions :**	**Standards :** Locate control. CUE: Green light lit Location Waste Panel
	Comments :		
	Satisfactory ☐	**Unsatisfactory** ☐	
5	**Element :** Verify all manual outlet valves 1617, 1618, 1619, 1620 Locked closed.	**Conditions :** If Location is requested eSOMS poistion is Aux BLD Intermediate level GDT alley 5' elevation	**Standards :** Locate valve. Verify Locked Closed CUE: All valves are locked closed. 1617 has a HOLD tag attached.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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*6 **Element :** **CRITICAL**
Close Release Valve RCV-14.

Conditions :

Standards :
Locate Control.
Simulate closing.
CUE: Valve is closed.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

---

7 **Element :**
Remove Hold on V-1617.

Conditions :

Standards :
Locate valve.
CUE; ESOMS release sheet indicates hold on V1617 relreased.
Simulate removing hold.
CUE: Hold removed.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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*8 **Element :** **CRITICAL**
Unlock and open V-1617

Conditions :

Standards :
Locate valve.
Simulate unlocking and opening.
CUE: Valve no longer turns in that direction.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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*9 **Element :** **CRITICAL**
Throttle opens RCV-014 while maintaining less than release rate.

Conditions :

Standards :
Locates control throttle open while monitoring release rate.
CUE: R-14 indicates a slight increase.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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10 **Element :**
Notify Control Room of release initiation

Conditions :

Standards :
Simulate calling Control Room.
CUE: A GDT indicate <5psi pressure.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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*11 **Element :** **CRITICAL**
Close RCV-14.

Conditions :

Standards :
Locate Control.
Simulate closing.
CUE: Valve indicates closed.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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12 **Element :**
Notify Control Room.

Conditions :

Standards :
Simulate calling Control.
CUE: Pressure is 4 psi

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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*13 **Element :** **CRITICAL**
Close and Lock 1617.

Conditions :

Standards :
Locates valve.
Simulate closing and locking.
CUE: Valve no longer turns in that direction.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

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14 **Element :**
Remove Hold on PCV-1036A.

Conditions :

Standards :
Locate valve.
CUE: Hold is removed.

CUE: No further actions.

Comments :

Satisfactory ☐ **Unsatisfactory** ☐

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag