

JPM NO JR001.013

Realign a misaligned RCC

Revision #: 0

Review Date: 4/28/2006

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 available 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 :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRER ER-RCC.2	RESTORING A MISALIGNED RCC		<input type="checkbox"/>

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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 3 | Element :
Record Step Count | Conditions : | Standards :
Records CBD step count for later reference. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *4 | Element : <u>CRITICAL</u>
Place Rod Selector Switch to the affected Bank | Conditions : | Standards :
Locate Selector Switch and place to the CBD position |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *6 | Element : <u>CRITICAL</u>
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 **Conditions :** **Standards :**
 Insert affected RCC to one MRPI Note: Rod Control Urgent Failure Locate the In/Out/Hold
 tranistion below the Bank position will Come in . This is an expected switch. Insert C-7 till MRPI
 alarm below the rest of bank D.
 Stop as soon as the tranistion
 is made.

Comments :

Satisfactory Unsatisfactory

*8 **Element :** CRITICAL **Conditions :** **Standards :**
 Reconnect all Bank Lift Coils Reconnects all Lift Coils for
 D Bank

Comments :

Satisfactory Unsatisfactory

*9 **Element :** CRITICAL **Conditions :** **Standards :**
 Disconnect Lift Coil for the Disconnect the Lift Coil for
 affected Rod C-7

Comments :

Satisfactory Unsatisfactory

10 **Element :** **Conditions :** **Standards :**
 Reset the Urgent Failure Alarm Locate and dpress the alarm
 reset pushbutton

Comments :

Satisfactory Unsatisfactory

*11 **Element :** CRITICAL **Conditions :** **Standards :**
 Insert the affected Bank to the Locate the In/Out/Hold
 same MRPI tranistion as the switch. Insert bank till MRPI
 affected Rod. 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 : **CRITICAL**
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 :
Notify 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
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JPM NO JR004.012

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

Revision #: 0

Review Date: 5/16/2006

Location: Simulator

Estimated Time (minutes): 20.00

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 is preparing for a shutdown to replace a Hot leg RTD.

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 :

<u>ID</u>		<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRO	O-2.2	PLANT SHUTDOWN FROM HOT SHUTDOWN TO COLD CONDITIONS		<input type="checkbox"/>
PRS	S-3.3C	H2 OR O2 REMOVAL FROM PRIMARY SYSTEM BY BURPING VOLUME CONTROL TANK WITH N2		<input type="checkbox"/>

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.

Performance Checklist

- | | | | |
|----|---|--------------------------|--|
| 1 | Element :
Review S-3.3C. | Conditions : | Standards :
Reviews cautions and completed steps. |
| | Comments : | | |
| | Satisfactory | <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> |
| 2 | Element :
Notify NLO to isolate H2 and N2 to VCT. | Conditions : | Standards :
Calls AO and instructs 261 and 262 to be closed. |
| | Comments : | | |
| | Satisfactory | <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> |
| 3 | Element :
Record VCT press. | Conditions : | Standards :
Locate meter/record pressure. |
| | Comments : | | |
| | Satisfactory | <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> |
| *4 | Element : <u>CRITICAL</u>
Place 112A to VCT position. | Conditions : | Standards :
Locate switch. Place to 112C. |
| | Comments : | | |
| | Satisfactory | <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> |
| *5 | Element : <u>CRITICAL</u>
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 | <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> |
| *6 | Element : <u>CRITICAL</u>
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

9

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

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

Conditions :

Standards :
Locate switch. Start pump.

Comments :

Satisfactory

Unsatisfactory

*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

Element :
Notify NLO to check N2 regulator
lineup.

Conditions :

Standards :
Call NLO to check N2
regulator. NLO adjusts N2
regulator.

Comments :

Satisfactory

Unsatisfactory

25 **Element :**
When pressure returns to normal,
continue Burp.

Conditions :

Standards :
Place 112A to HUT.

Comments :

Satisfactory

Unsatisfactory

26 **Element :**
Monitor VCT Press/Level.

Conditions :
CUE: No further actions.

Standards :

Comments :

Satisfactory

Unsatisfactory

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
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JPM NO JR006.002

Nitrogen Makeup to Accumulator

Revision #: 7

Review Date: 5/16/2006

Location: Simulator

Estimated Time (minutes): 30.00

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 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 :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRS S-16.2	NITROGEN MAKE-UP TO THE SI ACCUMULATORS		<input type="checkbox"/>

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 <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
*2	Element : <u>CRITICAL</u> Open Accumulator AOV-834A	Conditions :	Standards : Switch to open demonstrating Proper Touch STAR
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
*3	Element : <u>CRITICAL</u> Open Auxiliary Building N2 Supply Valve, AOV-846.	Conditions :	Standards : Switch to open demonstrating Proper Touch STAR
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
4	Element : Recognize Step 5.3 complete and initial step.	Conditions : Instructor initial as SS.	Standards :
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
*5	Element : <u>CRITICAL</u> 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 <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	

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 :** CRITICAL
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 :**
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 :
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

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.

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

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

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 :** **CRITICAL**
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

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
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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 _____

NOTE

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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

PRES

ES-1.2

Description

POST LOCA COOLDOWN AND
DEPRESSURIZATION

Review Date

Ref Flag

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. (JMRC12A=WRC12A).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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 2 | Element :
Observes caution at start of
attachment. | Conditions : | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *3 | Element : <u>CRITICAL</u>
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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 4 | Element :
Verify Przr Spray Valves closed. | Conditions : | Standards :
Locate controllers.

Verify demand indicator at
0%.
Verify valve position green
lights lit. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |

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 available to run CCW pump.

Conditions :**Standards :**

Determine offsite power
available. 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 switch to start pump.

Comments :

Satisfactory

Unsatisfactory

	Element : Option 3 Only: Verify MOV-817 open	Conditions :	Standards : Locates Valve , Verifies Position
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
11	Element : Option 3 Only: Verify MOVs 749A and 754A are Open	Conditions :	Standards : Locates Valve , Verifies Position
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
12	Element : Option 3:Verify MOV-759A open	Conditions :	Standards : Locate Valve Indication
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
13	Element : Option 3 Detemine that Seal Injection is in service return to Att 15.0 .	Conditions :	Standards : Same As Element
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
14	Element : "A" RCP Seal Inlet < 135 degrees.	Conditions :	Standards : Locate Meters, verify < 135 degrees F.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
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.

Comments :

Satisfactory

Unsatisfactory

Element :

If MOV-313 CLOSED:

- Verify #1 Seal Inlet temperature.

-Verify #1 Seal d/p.

Comments :

Satisfactory

Unsatisfactory

*24

Element :

CRITICAL

Start "A" RCP.

Conditions :

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

Comments :

Satisfactory

Unsatisfactory

Element :

Observes indications.

Conditions :

OPTIONS 1 & 3

CUE: No further action.

Standards :

Same as element.

Comments :

Satisfactory

Unsatisfactory

*26

Element : **CRITICAL**

Conditions :

Standards :

OPTION 2:

CUE: No further action.

OPTION 2: Same as element.

Observes seal failure conditions
and stops RCP.

(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

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:

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 :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRAR AR-A-26	CONTAINMENT ISOLATION		<input type="checkbox"/>

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 <input type="checkbox"/> | | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| 2 | Element :
Check Annunciator A-25/26. | Conditions : | Standards :
Locate Annunciators.
Determine not lit. Locate CI pushbutton and depress. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| *3 | Element : <u>CRITICAL</u>
Check CI/CVI status lights bright. | Conditions : | Standards :
Determine all lights not bright.
- Close affected valves by placing switch to close or Close/remote switch to close.

Per Attachment 3.0
- Pull stop CNMT sump pumps.
- Dispatch AO to close 1723/1728 locally. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| *4 | Element : <u>CRITICAL</u>
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 dispatch to locally close MOV-313 the critical step is not met. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |

Element :
Verify CNMT Fan Cooler Status
Light - Bright.

Conditions :

Standards :
Locate lights. Verify bright.

Comments :

Satisfactory

Unsatisfactory

6 **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
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JPM NO JR064.002

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

Revision #: 13

Review Date: 4/25/2006

Location: Simulator

Estimated Time (minutes): 24.00

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 at power with a normal electrical lineup.

Initiating Cues :

A surveillance test of the "A" EDG is due following minor maintenance. Appropriate supervisory permission has been obtained. The HCO has logged the start of the test and announced that Bus 18 is not available for general access. Diagnostic test personnel, QC personnel and Aux Operators are at the D/G and ready for the test. The "B" D/G is operable and in normal standby condition. Safety barriers have been erected and pre-start alignment per T-27.1 is completed. Fire detection zone S-33D has been disconnected. Operations has verified ITS section 3.8.1 Condition B is met. Perform the "A" D/G post-maintenance surveillance test.

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 criteria met plus D/G correctly aligned for post SI operation.

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRPT PT-12.1	EMERGENCY DIESEL GENERATOR A		<input type="checkbox"/>

Safety Considerations

Consequences of Inadequate Performance:

Failure to correct perform the test could result in undetected inoperability 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, "A" running, "C" secured, "C" selected) Place synchroscope in "B" D/G position and turn off D/G voltmeter and ammeter.
Copy of PT-12.1 ready.

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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 2 | Element :
Verify Initial Conditions. Review precautions. Verify that Step 4.4 is marked as post-maintenance. | Conditions : | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 3 | Element :
Verify Service Water status. | Conditions :
CUE: AO reports running SW Pump selected. | Standards :
Reads note prior to Step 6.4, and directs AO to select the running SW Pump. (LOA CLG25, CLG26) |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 4 | Element :
Notify Energy Operations. | Conditions :
CUE: Energy Operations has been notified. | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 5 | Element :
Verify Start Relay and Air Start lamps illuminated. | Conditions : | Standards :
Same as element |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 6 | Element :
Verify/place "A" Gen ammeter switch in B position. | Conditions : | Standards :
Same as element. |

Comments :

Satisfactory

Unsatisfactory

7

Element :

Verify/place "A" Gen voltmeter switch in B--C position.

Conditions :**Standards :**

Same as Element

Comments :

Satisfactory

Unsatisfactory

8

Element :

Declare "A" D/G inoperable.

Conditions :

NOTE: Examinee should N/A the monthly asterisked surveillance steps.

Standards :

Notify CRS to declare D/G inoperable

Comments :

Satisfactory

Unsatisfactory

Element :

Circle the Fuel Oil Transfer Pump Suction Strainer and Engine Fuel Oil Filter that are in service.

Conditions :CUE: "A" Fuel Oil Transfer Pump Suction Strainer is currently in service.
"A" Fuel Oil Filter is currently in service.**Standards :**

Same as element.

Comments :

Satisfactory

Unsatisfactory

10

Element :

Notify AO to check expansion tank level

Conditions :

CUE: AO report expansion tank level 3/4 full

Standards :

Same as element.

Comments :

Satisfactory

Unsatisfactory

11

Element :

Notify Control Room Operators to fill in D/G demand log

Conditions :

CUE: Log complete

Standards :

Same as element.

Comments :

Satisfactory

Unsatisfactory

Element :
Notify Control Room Operators
that alarm J-24 will come in.

Conditions :

Standards :

Same as element

Comments :

Satisfactory

Unsatisfactory

*13 **Element :** **CRITICAL**
Start "A" D/G, record start time.

Conditions :

Standards :

Locate Start switch place to
start, verify the D/G start by
verifying Voltage and Freq.

Comments :

Satisfactory

Unsatisfactory

14 **Element :**
Record voltage and frequency.

Conditions :

Standards :

Same as element

Note LOA GEN11 to reset local
alarm

Comments :

Satisfactory

Unsatisfactory

15 **Element :**
Notify AO to check Local Alarms

Conditions :

Standards :

CUE: AO reports all alarms are
normal

Same as Element

Comments :

Satisfactory

Unsatisfactory

16 **Element :**
Direct Test personnel to check
pyrometer readings

Conditions :

Standards :

CUE: All readings are normal

Same as element

Comments :

Satisfactory

Unsatisfactory

17 **Element :**
Have test personnel verify start of
Supply Fan 1A2.

Conditions :

Standards :

CUE: Auto start verified. Manual
start of 1A1 not desired.

Same as element.

Comments :

Satisfactory

Unsatisfactory

18

Element :At MCB read and record 33 ft
MET Tower air temperature.**Conditions :****Standards :**Locate Met tower recorder or
get info from PPCS

Comments :

Satisfactory

Unsatisfactory

19

Element :

Direct taking of initial readings.

Conditions :CUE: 10 minutes have passed and
all readings have been taken per
Data Sheet 1 and Sheet 2; and all
are normal. AO has copy of data
sheets.**Standards :**

Same as element.

Comments :

Satisfactory

Unsatisfactory

20

Element :

Record voltage and frequency.

Conditions :**Standards :**Same as element.
Verify that they meet the
Data sheet 7 acceptance
criteria.

Comments :

Satisfactory

Unsatisfactory

21

Element :Place Voltage Regulator in
Manual, achieve 480V +/- 5V.
Return Voltage Regulator to
AUTO.**Conditions :****Standards :**Locate AUTO/MAN voltage
switch, place to MAN, adjust
manual voltage as necessary,
return switch to AUTO.

Comments :

Satisfactory

Unsatisfactory

Element : **CRITICAL**
Place Unit/Parallel Switch in
Parallel.**Conditions :****Standards :**Locate switch, place in
parallel

Comments :

Satisfactory Unsatisfactory

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

Conditions :**Standards :**

Locate switch, place in Bus 18 position

Comments :

Satisfactory Unsatisfactory

*24 **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

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

*26 **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

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

- *28 **Element :** CRITICAL
Select other synchroscope position, close other breaker.
- Conditions :**
CUE: Maintenance performed was not major.
- Standards :**
Locate switch, place to Bus 14 position. Locate and close Bus 14 breaker
- NOTE: Examinee should N/A Step 6.17.

Comments :

Satisfactory

Unsatisfactory

- *29 **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

- 30 **Element :**
Records time 2050 KW attained.
- Conditions :**
- Standards :**
Same as element.

Comments :

Satisfactory

Unsatisfactory

- 31 **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

- 32 **Element :**
Option 2: Inadvertant SI
- Conditions :**
CUE: SI has just occurred the CRS direct you to perform required Emergency D/G actions
- Standards :**
References attachment 8 of PT-12.1

Comments :Satisfactory Unsatisfactory

33 **Element :** Reviews actions of attachment 8
Conditions : Reviews step 1-3 of attachment
Standards : Same as element

Comments :Satisfactory Unsatisfactory

*34 **Element :** CRITICAL
 Adjust D/G voltage to
 Approximately 480 Volts
Conditions :
Standards : Locate Auto Voltage Control for the A D/G. Adjusts control to lower voltage to approximately 480 Volts on the output voltmeter.

Comments :Satisfactory Unsatisfactory

35 **Element :** Verify that the SI sequence is complete.
Conditions :
Standards : Checks to verify that all the sequencer loads have started

Comments :Satisfactory Unsatisfactory

*36 **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

*37 **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

38

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
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JPM NO . JR012.001

Defeat a Failed Przr Pressure Channel

Revision #: 7

Review Date: 5/8/2006

Location: Simulator

Estimated Time (minutes): 12.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: Satisfactory _____ Unsatisfactory _____

Trainee: _____

Instructor: _____

Submitted By _____ Date _____

Reviewed By _____ Date _____

NOTE

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 was operating at 100 % 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 :

<u>ID</u>		<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRER	ER-INST.1	REACTOR PROTECTION BISTABLE DEFEAT AFTER INSTRUMENTATION LOOP FAILURE		<input type="checkbox"/>

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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 2 | Element :
Refer to appropriate section of ER-INST.1, Step 4.4.5. | Conditions : | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 3 | Element :
Verify P/429A defeat in normal position. | Conditions : | Standards :
Go to PLP Rack.
Verify P/429A in Normal position. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *4 | Element : <u>CRITICAL</u>
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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *5 | Element : <u>CRITICAL</u>
Trip bistable Overtemperature Trip. 405 Loop A-1 | Conditions : | Standards :
Pull and lift switch. |

Comments :

Satisfactory Unsatisfactory

- *6 **Element :** CRITICAL **Conditions :** **Standards :**
 Trip bistable for High Pressure
 trip. 429 Channel 1 Pull and lift switch.

Comments :

Satisfactory Unsatisfactory

- *7 **Element :** CRITICAL **Conditions :** **Standards :**
 Trip Bistable for Low Pressure
 trip 429 Channel 1 Pull and lift switch.

Comments :

Satisfactory Unsatisfactory

- Element :** CRITICAL **Conditions :** **Standards :**
 Trip bistable for SI.429 Channel
 1 Pull and lift switch.

Comments :

Satisfactory Unsatisfactory

- *9 **Element :** CRITICAL **Conditions :** **Standards :**
 Trip bistable for Unblock SI. 429
 Channel 1 Pull and lift switch.

Comments :

Satisfactory Unsatisfactory

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

Comments :

Satisfactory Unsatisfactory

- 11 **Element :** **Conditions :** **Standards :**
 Place Przr Pressure Recorder
 switch to Position 1-3. Place switch on MCB to
 position 1-3.

Comments :

Satisfactory

Unsatisfactory

12

Element :

Verify Bistable Status Lights

Conditions :

Standards :

Same as Element

Comments :

Satisfactory

Unsatisfactory

13

Element :

Delete 401/405 from processing on PPCS if operable.

Conditions :

Verify on PPCS screen 401/405 are being defeated.

Standards :

Same as element.

CUE: No further action.

Comments :

Satisfactory

Unsatisfactory

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 :

<u>ID</u>		<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRS	S-23.2.3	CONTAINMENT MINI-PURGE SYSTEM OPERATION		<input type="checkbox"/>

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 <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
2	Element : Reviews precautions.	Conditions :	Standards : Same as element.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
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 <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
*4	Element : <u>CRITICAL</u> Open Mini Purge Exhaust Valve, AOV-7970.	Conditions :	Standards : Shift switch to open.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
*5	Element : <u>CRITICAL</u> Open Mini Purge Exhaust Valve, AOV-7971.	Conditions :	Standards : Rotate switch to open.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
	Element : <u>CRITICAL</u> Open Mini Purge Supply Valve, AOV-7478.	Conditions :	Standards : Rotate switch to open.

Comments :Satisfactory Unsatisfactory

*7 **Element :** **CRITICAL** **Conditions :** **Standards :**
 Open Mini Purge Supply Valve, AOV-7445. Rotate switch to open.

Comments :Satisfactory Unsatisfactory

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

Comments :Satisfactory Unsatisfactory

Element : **CRITICAL** **Conditions :** **Standards :**
 Start "A" Mini Purge Supply and verify Containment pressure increase. CUE: Containment pressure has increased slightly and stabilized. Rotate switch to run.

Comments :Satisfactory Unsatisfactory

10 **Element :** **Conditions :** **Standards :**
 Recognize R-14 Alarm Acknowledges alarms. Refers to precaution in S-23.2.3 or AR for R-14 alarms.

Comments :Satisfactory Unsatisfactory

*11 **Element :** **CRITICAL** **Conditions :** **Standards :**
 Determine Mini-Purge. Must be shutdown Same as Element.

Comments :Satisfactory Unsatisfactory

*12 **Element :** CRITICAL **Conditions :** **Standards :**
Stop Mini-Purge Blower 1A. Same as Element.

Comments :

Satisfactory Unsatisfactory

*13 **Element :** CRITICAL **Conditions :** **Standards :**
Closes supply valves 7478 and 7445. Same as Element.

Comments :

Satisfactory Unsatisfactory

*14 **Element :** CRITICAL **Conditions :** **Standards :**
Closes exhaust valves 7970 and 7971. Same as Element.
CUE: No further actions.

Comments :

Satisfactory Unsatisfactory

JPM NO JN086.002

Secure Ventilation Systems During a Fire

Revision #: 0

Review Date: 4/1/2006

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

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:

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.

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 :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRFRP FRP-5.0	AUXILIARY BUILDING INTERMEDIATE FLOOR		<input type="checkbox"/>

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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| <hr/> | | | |
| *2 | Element : <u>CRITICAL</u>
Secure the "C" AB Exhaust Fan. | Conditions : | Standards :
Proceed to Fan Control
Intermediate Building Top
Level
Simulate securing fan. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| <hr/> | | | |
| 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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| <hr/> | | | |

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

*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

M Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
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JPM NO JC035.006

Perform ATTACHMENT RUPTURED STEAM GENERATOR PART B

Revision #: 5

Review Date: 6/3/2004

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 :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRATT ATT-16.0	ATTACHMENT RUPTURED S/G		<input type="checkbox"/>
PRE E-3	STEAM GENERATOR TUBE RUPTURE		<input type="checkbox"/>

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

- | | | | |
|----|---|--|---|
| 1 | Element :
NOTE | Conditions :
NOTE: Evaluator supply copy of attachment. Should supply laser pointer for hot/hard to access spots. | Standards : |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 2 | Element :
Proceed to Turbine Bldg. | Conditions : | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *3 | Element : <u>CRITICAL</u>
MFW Regulating Valve and Bypass Valve Manual Isolation Valves.
- S/G A, V-3985, V-3989
- S/G B, V-3984, V-3988 | Conditions :
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. | Standards :
- Locate valves.
- Simulate closing. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *4 | Element : <u>CRITICAL</u>
Reheat Steam Chain Valves.
- V-3551 (1A MSR)
- V-3550 (1B MSR)
- V-3553 (2A MSR)
- V-3552 (2B MSR) | Conditions :
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 | Standards :
- Locate valves.
- Simulate closing. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |

Element : **CRITICAL**

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

*6

Element : **CRITICAL**

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

*7

Element : **CRITICAL**

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

*8 **Element :** CRITICAL
 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
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JPM NO JN071.002

Release the "A" Gas Decay Tank

Revision #: 0

Review Date: 4/1/2006

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 :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRS	S-4.2.5 RELEASE OF GAS DECAY TANK		<input type="checkbox"/>

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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *2 | Element : <u>CRITICAL</u>
Close inlet to A GDT
PCV-1036A. | Conditions : | Standards :
Locate control.
Simulate placing to close.
Cue: Green lighr is lit.
CUE: Green light lit
Location Waste Panel |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *3 | Element : <u>CRITICAL</u>
Close GT Reuse Valve
AOV-1629. | Conditions : | Standards :
Locate control.
Simulate placing to close.
Location Waste Panel |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 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 <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *5 | Element : <u>CRITICAL</u>
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. |

Comments :Satisfactory Unsatisfactory *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
released.
Simulate removing hold.
CUE: Hold removed.**Comments :**Satisfactory Unsatisfactory *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 *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

Element :
Notify Control Room of release
initiation

Conditions :

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

Comments :

Satisfactory

Unsatisfactory

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

Conditions :

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

Comments :

Satisfactory

Unsatisfactory

12 **Element :**
Notify Control Room.

Conditions :

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

Comments :

Satisfactory

Unsatisfactory

*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

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

Conditions :

Standards :
Locate valve.
CUE: Hold is removed.

CUE: No further actions.

Comments :

Satisfactory

Unsatisfactory

M Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
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