

JPM NO JR012.008

Borate RCS for SDM (FR-S.2)

Revision #: 1

Review Date: 1/27/2004

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

Initial Conditions:

The plant was operating at 100% power when a small break LOCA occurred resulting in Safety Injection actuation. During the transient Bus 14 tripped and will not energize. E-0 was entered and has been completed to Step 27. The STA has determined that the IR SUR indications result in a YELLOW FR-S.2 condition.

Initiating Cues :

The CRF directs you to "Initiate Immediate Boration of RCS" per Step 2 of FR-S.2 while the rest of the crew continues in E-0.

Description: Borate RCS for SDM (CT FR-S.2--A)

JPM Tasks

Task ID: 012-002-05-01A

Task Standards

Tools :

Terminating Cues

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRFR FR-S.2	RESPONSE TO LOSS OF CORE SHUTDOWN		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

Use IC-54 for JR012.008 (FR-S.2). Bus 14 deenergized, SI actuated, RCS pressure approx. 1600 psig. IR SUR meters (IND OVRD IND-NIS03 & NIS04) set to -0.05. (Check on MON points hwx06d020m and hwx06d021m.)

Performance Checklist

1	Element : CUE	Conditions : CUE: Give examinee copy of FR-S.2.	Standards :
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
2	Element : Check SI status.	Conditions :	Standards : Checks MCB indicators, recognizes SI Pumps on with no flow indicated. Goes to Step 2b.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
	Element : Verify at least one charging pump running.	Conditions :	Standards : Check MCB indicating lights. Recognizes no Charging Pump running. Goes to step RNO.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
4	Element : Reset SI.	Conditions :	Standards : Depresses SI Reset pushbutton.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
*5	Element : <u>CRITICAL</u> Start one charging pump.	Conditions :	Standards : Starts Charging Pump "B" or "C". Goes to Step 2c.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	

*6 **Element :** CRITICAL **Conditions :** **Standards :**
 Start BA Transfer Pump. Starts BA Transfer Pump
 "B".

Comments :

Satisfactory

Unsatisfactory

*7 **Element :** CRITICAL **Conditions :** **Standards :**
 Open MOV-350. Open valve using MCB
 switch.

Comments :

Satisfactory

Unsatisfactory

8 **Element :** **Conditions :** **Standards :**
 Verify BA flow. CUE: No further action. Checks MCB indicator
 FI-113.

Comments :

Satisfactory

Unsatisfactory

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
----------------	--------------	-------------	----------

JPM NO JR005.009

3Establish S/G Cooling per AP-RHR.1

Revision #: 1

Review Date: 1/28/2004

Location: Simulator

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

Initial Conditions:

The "B" SI Pump impeller failed during an SI Accumulator level increase operation 80 hours ago. Repairs are under way, expected to be complete in approximately another 24 hours. Due to the length of time involved the plant has been taken to Mode 4 to satisfy ITS LCO 3.5.2, the Mode 4 requirement has been met 4 hours before the required Completion Time window. Procedure O-2.2 was used for the shutdown and was completed through Section 5.5.7 for going to Solid Plant Operations.

An Auxiliary Operator is available to enter Containment immediately if needed, there are no personnel in Containment at this time.

Initiating Cues :

A trip of RHR Pump "A" occurred and AP-RHR.1, LOSS OF RHR, is in progress. The procedure is complete up to step 10. You are to continue with AP-RHR.1 Step 10 and restore RCS cooling.

Description: Establish S/G Cooling (CT AP-RHR.1--B) (JR005.009)

JPM Tasks

Task ID: 005-001-04-01D

Task Standards

Tools :

Terminating Cues

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRAP AP-RHR.1	LOSS OF RHR		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

Set simulator to IC-4, BOL 340/325#, solid plant with RHR Pump "A" in service.
 Provide copy of O-2.2 (section 5.5.7 for going to Solid Plant Ops completed).
 Insert MALF RHR01A, trip of RHR Pump "A".
 Option 2 only: Insert MALF RHR01B Trip of "B" RHR pump
 Freeze for turnover to examinee.

Options 1: Restore using RHR
 (2) Restore using S/G Cooling

Performance Checklist

- | | | | |
|---|--|--|---|
| 1 | Element :
Determine RHR Pump "B" is available. | Conditions : | Standards :
Check RHR pump lights. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 2 | Element :
Verify CCW System status. | Conditions :
Cue: CCW flow on FI-619 is 4200 gpm. | Standards :
Check at least one CCW pump running. MOVs 738A/738B throttled open. Call AO to check CCW flow. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| | Element :
Close HCV-624 and HCV-625. | Conditions : | Standards :
Same as Element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 4 | Element :
Place HCV-626 in Manual and Closed. | Conditions : | Standards :
Same as Element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 5 | Element :
Start "B" RHR Pump. | Conditions :
Option 1: Once cooling is restored.
CUE: No further actions. | Standards :
Attempts to start pump.
<u>Option 2:</u> Recognizes that the pump tripped, uses RNO to go to step 11e.
Option 1: Pump restarts, adjusts 624, 625, 626 to restore RHR cooling. |

Comments :Satisfactory Unsatisfactory

6

Element :

Recognize no RHR Pump running for Step 11a.

Conditions :**Standards :**

Check RNO direction, go to Step 11e.

Comments :Satisfactory Unsatisfactory

7

Element :

Recognize no RHR flow.

Conditions :**Standards :**Check MCB indications for flow/pump running.
Go to RNO.**Comments :**Satisfactory Unsatisfactory

8

Element :

Start trending core exit thermocouples.

Conditions :**Standards :**Checks trend of temperature on PPCS.
TC increasing, continues in procedure.**Comments :**Satisfactory Unsatisfactory

9

Element :

Recognize RCS closed.

Conditions :**Standards :**Check MCB indications.
Go to Step 12.**Comments :**Satisfactory Unsatisfactory

10

Element :

Monitor RCS temperature.

Conditions :**Standards :**Recognize temperature increasing.
Recognize RCS closed.
Go to Step 13.

Comments :

Satisfactory

Unsatisfactory

11

Element :

Check S/G level greater than 17%.

Conditions :**Standards :**Check MCB indications.
Verify greater than 17% level.**Comments :**

Satisfactory

Unsatisfactory

12

Element :

Check RCS pressure greater than 300 psig.

Conditions :**Standards :**Check MCB indications.
Verify greater than 300 psig.**Comments :**

Satisfactory

Unsatisfactory

13

Element :

Check RCP running.

Conditions :**Standards :**

Check MCB pump indications.

Comments :

Satisfactory

Unsatisfactory

*14

Element :**CRITICAL**
Establish S/G cooling.**Conditions :****Standards :**Recognize steam dump not available.
Adjust at least one ARV to open.**Comments :**

Satisfactory

Unsatisfactory

*15

Element :**CRITICAL**
Monitor RCS temperature stable or decreasing.**Conditions :**

CUE: (When temperature is stabilized or decreasing in a controlled fashion) No further action.

Standards :Checks MCB/PPCS indications.
Adjusts ARV(s) to stabilize or decrease temperature.

Comments :

Satisfactory

Unsatisfactory

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
-----------------------	---------------------	--------------------	-----------------

JPM NO JR005.007

Initiate Containment Closure

Revision #: 0

Review Date: 1/27/2004

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

Initial Conditions:

The plant is in a refueling outage. The RCS has been drained to 20 inches for RTD work per O-2.3.1. The RWST Gravity Fill, Charging Pump "A" and SI Pump "A" fill paths are available. O-2.3.1A is in effect with Main Purge operating per S-23.2.2 and the Equipment Hatch doors open for movement of maintenance equipment.

RHR Pump "A" was running and has just tripped, the operating shift is preparing to enter AP-RHR.2, LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITION.

Initiating Cues :

You are the Control Operator. Other personnel will perform any actions necessary for the CRF and HCO positions. Monitor the plant and perform tasks as directed.

Description: Initiate Cnmt Closure (CT AP-RHR.2--A)

JPM Tasks

Task ID: 005-001-04-01B

Task Standards

Tools :

Terminating Cues

References :

<u>ID</u>		<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRAP	AP-RHR.2	LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS		<input type="checkbox"/>
PRO	O-2.3.1A	CONTAINMENT CLOSURE CAPABILITY IN TWO HOURS DURING RCS REDUCED INVENTORY OPERATION		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

Need S-23.2.2 for Containment Purge completed through startup steps.

Need O-2.3.1A, OPEN PENETRATION FACT SHEET filled out for:

- Purge Supply (P-204) (Instructions say "Secure containment purge")
- Purge Exhaust (P-300) (Secure containment purge)
- Equipment Hatch Air Lock (list RP department as personnel to contact and list a phone number).

Start simulator in IC-1, loop level 20 inches.

Insert MALF RHR01B for RHR Pump "B" trip.

Insert MALF RHR01A for RHR Pump "A" trip.

Freeze simulator until after turnover to examinee.

Performance Checklist

- | | | | |
|----|--|---|---|
| 1 | Element :
CUE | Conditions :
CUE: Control Operator, I need you to Initiate Cnmt Closure per AP-RHR.2 . Refer to O-2.3.1A. | Standards :
Examinee should repeat back the direction. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 2 | Element :
Obtain the O-2.3.1A and the Open Penetration Fact Sheets. | Conditions :
NOTE: The order of performing the two Open Penetration Fact Sheets is not critical. | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| | Element : <u>CRITICAL</u>
Contact RP department to close the Equipment Hatch. | Conditions : | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 4 | Element :
Stop Containment Purge Supply and Exhaust fans. | Conditions : | Standards :
Locates switch on back of MCB.
Secures "A" fans. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *5 | Element : <u>CRITICAL</u>
Close Cnmt Purge Supply Vlv, AOV-5869. | Conditions : | Standards :
Switch on MCB to close. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *6 | Element : <u>CRITICAL</u>
Close Cnmt Purge Exhaust Vlv, AOV-5879. | Conditions :
CUE: (Once all 3 critical tasks are done.) No further action. | Standards :
Switch on MCB to close. |

Comments :

Satisfactory

Unsatisfactory

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
----------------	--------------	-------------	----------

JPM NO JR010.003

Depressurize RCS Using N2

Revision #: 2

Review Date: 1/28/2004

Location: Simulator

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

Initial Conditions:

The plant has experienced a SGTR, reactor trip and safety injection. The RCP's have been tripped and Instrument Air is not available to Containment. All required steps of E-0 have been completed. All steps of E-3 have been completed up to Step 22.

(Option 2 only) MCC 1D experienced a fault and is de-energized.

Initiating Cues :

Plant is in E-3, Step 22 recovering from a SGTR. The RCP's are tripped and Instrument Air is not available to Containment. Depressurize the RCS per Attachment N2 PORV's.

Description: Depressurize RCS using N2 (JR010.003)

JPM Tasks

Task ID: 010-013-01-01A

Task Standards

Tools :

Terminating Cues

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRE E-3	STEAM GENERATOR TUBE RUPTURE		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

MALF SGN4A 750,0,0.

Complete all steps of E-0 and E-3 up to Step 22. Do not reset XY Relays and open AOV-5392 in Step 17.

Attachment N2 PORV'S required.

Option 2: Trip open MCC1D Supply Breaker

OVR-EDS 80D, ON

Override the PORV-431C close signal

OVR-PZR03C, OFF

Performance Checklist

1 **Element :** Review Attachment N2 PORV's. **Conditions :** Same as Element.
 CUE: Give examinee attachment N2 PORV's. The CRF will inform you when to secure depressurization. **Standards :**

Comments :

Satisfactory

Unsatisfactory

*2 **Element :** CRITICAL Verify Block Valve(s) open and operable. **Conditions :** (Option 1) Both are operable, can use either PORV.
 (Option 2) MOV 515 is inoperable, must use PCV-430. **Standards :**

Comments :

Satisfactory

Unsatisfactory

*3 **Element :** CRITICAL Place surge tank valve SOV-8616B to open (Option 2 8616A). **Conditions :** Obtain key from CRF. Use key to select open.
 CUE: The CO is monitoring przr level. **Standards :**

Comments :

Satisfactory

Unsatisfactory

*4 **Element :** CRITICAL Depressurize RCS. Place SOV-8619B to arm (Option 2 8619A). **Conditions :** Select Arm.
 Note: If examinee questions the need to trip bistables, cue that it is not anticipated that PORVs will be open below 410 psig. **Standards :**

Comments :

Satisfactory

Unsatisfactory

*5

Element : CRITICAL

Secure depressurize RCS
SOV-8619B to block (Option 2
8619A)

Conditions :

After the PORV has been open
approximately 5 seconds.
CUE: The CRF informs you to
secure the RCS depressurization.
Examinee takes SOV-8619B
(8619A) to block
CUE: No further actions.

Standards :

Same as Element.

Comments :

Satisfactory

Unsatisfactory

JPM NO JR062.005

Transfer 4160V Auxiliary Loads

Revision #: 7

Review Date: 1/28/2004

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

Initial Conditions:

The plant is doing a startup per O-1.2. We are presently approximately 20% power with O-1.2 complete thru Step 5.5.6.9.

Initiating Cues :

The CRF has directed you to transfer 4160V loads per Step 5.6 of O-1.2.

Description: Transfer 4160V Auxiliary Loads (JR062.005)

JPM Tasks

Task ID: 062-005-01-01A

Task Standards

Tools :

Terminating Cues

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRO O-1.2	PLANT STARTUP FROM HOT SHUTDOWN TO FULL LOAD		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

Setup simulator with T/G on line at approx. 20% power, increasing after a startup with copy of O-1.2 done through Step 5.5.6.7.

Performance Checklist

- | | | | |
|----|--|---|---|
| 1 | Element :
Review the procedure. | Conditions : | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *2 | Element : <u>CRITICAL</u>
Turn Bus 11A Normal Feed
synchroscope on. | Conditions : | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *3 | Element : <u>CRITICAL</u>
Close Bus 11A Normal Feed. | Conditions : | Standards :
Same as element.
Verifies breaker closure. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 4 | Element :
Turn Bus 11A Normal Feed
synchroscope off. | Conditions : | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *5 | Element : <u>CRITICAL</u>
Open 4160V Bus 11A-12A Tie. | Conditions : | Standards :
Same as element.
Verifies breaker open. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *6 | Element : <u>CRITICAL</u>
Turn Bus 11B Normal Feed
synchroscope on. | Conditions : | Standards :
Same as element. |

Comments :

Satisfactory

Unsatisfactory

*7

Element : CRITICAL
Close Bus 11B 4160V Normal
Feed.**Conditions :****Standards :**
Same as element.
Verifies breaker closure.**Comments :**

Satisfactory

Unsatisfactory

8

Element :
Turn Bus 11B Normal Feed
synchroscope off.**Conditions :****Standards :**
Same as element.**Comments :**

Satisfactory

Unsatisfactory

9

Element : CRITICAL
Open 4160V Bus 11B-12B Tie.**Conditions :****Standards :**
Same as element.
Verifies breaker open.**Comments :**

Satisfactory

Unsatisfactory

10

Element :
Verifies Annunciator J-13 is
extinguished.**Conditions :****Standards :**
Same as element.**Comments :**

Satisfactory

Unsatisfactory

11

Element :
Dispatches AO to reset
Transformer Alarms L-20 and
L-28.**Conditions :****Standards :**
Same as element.**Comments :**

Satisfactory

Unsatisfactory

12

Element :
Properly completes procedural
sign-offs.**Conditions :**
TERMINATING CUE: No further
action.**Standards :**
Same as element.

Comments :

Satisfactory

Unsatisfactory

JPM NO JR015.002

Remove N-41 from Service

Revision #: 6

Review Date: 1/27/2004

Location: Simulator

Estimated Time (minutes): 14.00

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

Initial Conditions:

Power Range channel N-41 drifted low over a period of several minutes and has been declared inoperable. No plant transient has occurred. Procedure ER-NIS.3 has been implemented. No other channels have been defeated.

Initiating Cues :

The CRF has directed you to remove PR N-41 from service per ER-NIS.3. All notifications have been made and approvals received. No other instrumentation channels are defeated.

Description: Remove N-41 from Service (JR015.002)

JPM Tasks

Task ID: 015-007-01-01A

Task Standards

Tools :

Terminating Cues

References :

<u>ID</u>		<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRER	ER-NIS.3	PR MALFUNCTION		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

Setup

IC-19

Rod in Manual

Insert Malfunction MALF NIS06A, 0 (Fail N-41 upper detector low)

Performance Checklist

1	Element : Obtain current ER-NIS.3, review procedure. Comments :	Conditions :	Standards : Same as element.
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
2	Element : Verify rods in manual, Tavg equal to Tref. Comments :	Conditions : CUE: Instructor will maintain control of Tavg during this evolution.	Standards : Same as element.
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
*3	Element : <u>CRITICAL</u> Delete NIS Channel N-41 from PPCS if operable (can be performed any time during defeat). 1) Select group update 2) Select list server groups 3) Select NIS 1 from pick list 4) Turn scan processing OFF, the click set scan processing Comments :	Conditions : Time Critical must be completed within 15 minutes of start of JPM.	Standards : Verify that NIS deleted from processing on PPCS.
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
*4	Element : <u>CRITICAL</u> Place Dropped Rod Mode switch to BYPASS. (N-41A Drawer)	Conditions :	Standards : Same as element. Student should ask for a PEER CHECK Dropped Rod Bypass local light lit. Power Range-1 Rod Drop Bypass lit (MCB). Annunciator E-7 lit.

Comments :

Satisfactory Unsatisfactory

5	Element : Defeat Delta-T Turbine Runback/Rod Stop by placing Delta-T Defeat switch T/405E Delta-T Defeat to Loop A - Unit 1. (RIL Rack)	Conditions :	Standards : Identifies/selects proper channel; Loop A - Unit 1 in RIL Rack. Student should ask for a PEER CHECK
---	---	---------------------	--

Comments :

Satisfactory Unsatisfactory

*6	Element : <u>CRITICAL</u> Place Overtemperature Trip bistable to Defeat in R-1 rack.	Conditions :	Standards : Same as element. Student should ask for a PEER CHECK
----	---	---------------------	---

Comments :

Satisfactory Unsatisfactory

7	Element : Checks F-23 lit.	Conditions :	Standards : Same as element.
---	--------------------------------------	---------------------	--

Comments :

Satisfactory Unsatisfactory

*8	Element : <u>CRITICAL</u> Place Overpower trip bistable to defeat in R-1 rack.	Conditions :	Standards : Same as element. Student should ask for a PEER CHECK
----	---	---------------------	---

Comments :

Satisfactory Unsatisfactory

9	Element : Checks F-32 lit and B/S status lights TC405A and TC405C lit.	Conditions :	Standards : Same as element.
---	--	---------------------	--

Comments :Satisfactory Unsatisfactory

*10 **Element :** **CRITICAL** **Conditions :** **Standards :**
 Place Upper Section Comparator
 Defeat switch to PRN-41 position. Same as element.

Student should ask for a
 PEER CHECK

Comments :Satisfactory Unsatisfactory

11 **Element :** **Conditions :** **Standards :**
 Verifies Channel Defeat Upper
 Section lit. Same as element.

Comments :Satisfactory Unsatisfactory

*12 **Element :** **CRITICAL** **Conditions :** **Standards :**
 Place Lower Section Comparator
 Defeat switch to PRN-41 position. Same as element.

Student should ask for a
 PEER CHECK

Comments :Satisfactory Unsatisfactory

13 **Element :** **Conditions :** **Standards :**
 Verifies Channel Defeat Lower
 Section lit. Same as element.

Comments :Satisfactory Unsatisfactory

*14 **Element :** **CRITICAL** **Conditions :** **Standards :**
 Place Power Mismatch Bypass
 switch to Bypass PRN-41. Same as element.

Student should ask for a
 PEER CHECK

Comments :Satisfactory Unsatisfactory

*15 **Element :** CRITICAL **Conditions :** **Standards :**
Place Rod Stop Bypass to N-41. Same as element.

Student should ask for a
PEER CHECK

Comments :Satisfactory Unsatisfactory

*16 **Element :** CRITICAL **Conditions :** **Standards :**
Place Comparator Channel Defeat switch to N-41. Same as element.

Student should ask for a
PEER CHECK

Comments :Satisfactory Unsatisfactory

17 **Element :** **Conditions :** **Standards :**
Verifies Comparator Defeat lit. Same as element.

Comments :Satisfactory Unsatisfactory

*18 **Element :** CRITICAL **Conditions :** **Standards :**
Remove Instrument Power fuses for N-41. Same as element.

Student should ask for a
PEER CHECK

Comments :Satisfactory Unsatisfactory

Element : **Conditions :** **Standards :**
Verifies E-18, E-19, E-21, E-27, E-28 lit. Same as element.

Comments :Satisfactory Unsatisfactory

20

Element :Verifies B/S status lights NC41M,
NC41N, NC41P, NC41R, NC41S
lit.**Conditions :****Standards :**

Same as element.

Comments :Satisfactory Unsatisfactory

21

Element :Verify status lights on Power
Range Drawer N-41A.**Conditions :****Standards :**

Same as element.

Comments :Satisfactory Unsatisfactory

22

Element :Verify status lights on N-41B
drawer.**Conditions :****Standards :**

Same as element.

Comments :Satisfactory Unsatisfactory

23

Element :

Notify I&C to install jumpers.

Conditions :

CUE: No further action.

Standards :

Same as element.

Comments :Satisfactory Unsatisfactory

JPM NO JR006.001

Makeup to the "B" Accumulator from RWST

Option 1 No Faults

Option 2 Faulted (SI Pump Trip) Option 3 Alternate Path (High Press Alarm During Fill)

Estimated Time: Option 1: 10 mins Option 2: 15 mins Option 3: 20 mins.

Revision #: 12

Review Date: 2/6/2004

Location: Simulator

Estimated Time (minutes): 0.00

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

Initial Conditions:

Accumulator "B" level has decreased to 56% with a resulting low pressure.

Initiating Cues :

Accumulator "B" is at 56% level. The CRF directs you to fill it to 70% using the "C" SI Pump per procedure S-16.13, RWST WATER MAKEUP TO THE ACCUMULATORS.

Description: Makeup to the "B" Accumulator from RWST (JR006.001)

JPM Tasks

Task ID: 006-003-01-04A

Task Standards

Tools :

Terminating Cues

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRS S-16.13	RWST WATER MAKEUP TO ACCUMULATORS		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

OPTION 1:

Init in any at power IC. Insert MALF SIS5B=100gpm. Run until level <56% (MONV T:L934), then clear MALF. (Wait for sump pump annunciator C-18 to clear) (Steps 1-11)

OPTION 2:

Complete Option 1 setup, then insert MALF SIS 3C (pump trip) (Steps 13-27)

OPTION 3:

After draining, use S-16.2 to increase Accumulator press to just below the alarm (760 psig). Secure N2 fill lineup (Steps 28-58) (NOTE: Operator may vent the accumulator first based on judgement that it will exceed 760psig)

Performance Checklist

1	Element : OPTION 1	Conditions :	Standards :
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
2	Element : Obtain a copy of procedure S-16.13 and review precautions and notes.	Conditions :	Standards : Same as element.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
3	Element : Verify open Suction from RWST, MOV-825A and MOV-825B.	Conditions :	Standards : Same as element.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
4	Element : Verify open Recirc Valves to RWST, MOV-897 and MOV-898.	Conditions :	Standards : Same as element.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
*5	Element : <u>CRITICAL</u> Open "B" Accumulator Fill Valve.	Conditions :	Standards : Open AOV-835B.
	Comments :		
	Satisfactory <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>	
	Element : Notify AO of impending start of "C" Pump.	Conditions :	Standards : Same as element.

Comments :

Satisfactory Unsatisfactory

7

Element :

N/A Steps 5.6, 5.7 and 5.8.1

Conditions :

Standards :

Same as element.

Comments :

Satisfactory Unsatisfactory

*8

Element :

CRITICAL
Starts "C" SI Pump.

Conditions :

Standards :

Same as element.

Comments :

Satisfactory Unsatisfactory

Element :

Verify pump discharge pressure approx. 1500 psi on PI-923.

Conditions :

Standards :

Observes PI-923.

Comments :

Satisfactory Unsatisfactory

*10

Element :

CRITICAL
When desired level is obtained, stop operating pump and place in auto.

Conditions :

Standards :

- At >57% and <75% level stop pump.

- Observes accumulator pressure during fill to ensure precaution 4.2 satisfied.

Comments :

Satisfactory Unsatisfactory

*11

Element :

CRITICAL
Close Accumulator Fill Valve.

Conditions :

CUE: No further action.

Standards :

Closes AOV-835B,.

Comments :

Satisfactory Unsatisfactory

12 **Element :** ***** **Conditions :** ***** **Standards :** *****

Comments :

Satisfactory **Unsatisfactory**

13 **Element :** OPTION 2 **Conditions :** **Standards :**

Comments :

Satisfactory **Unsatisfactory**

14 **Element :** Obtain copy of procedure S-16.13 and review precautions and notes. **Conditions :** **Standards :** Same as element.

Comments :

Satisfactory **Unsatisfactory**

15 **Element :** Verify open Suction from RWST, MOV-825A and MOV-825B. **Conditions :** **Standards :** Same as element.

Comments :

Satisfactory **Unsatisfactory**

16 **Element :** Verify open Recirc Valves to RWST, MOV-897 and MOV-898. **Conditions :** **Standards :** Same as element.

Comments :

Satisfactory **Unsatisfactory**

*17 **Element :** CRITICAL Open "B" Accumulator Fill Valve. **Conditions :** **Standards :** Open AOV-835B.

Comments :

Satisfactory **Unsatisfactory**

18 **Element :**
 Notify AO of impending start of
 "C" SI Pump.

Conditions :

Standards :
 Same as element.

Comments :

Satisfactory Unsatisfactory

19 **Element :**
 N/A steps 5.6, 5.7 and 5.8.1

Conditions :

Standards :
 Same as element.

Comments :

Satisfactory Unsatisfactory

*20 **Element :** **CRITICAL**
 Starts "C" SI Pump.

Conditions :

Standards :
 Same as element.

Comments :

Satisfactory Unsatisfactory

*21 **Element :** **CRITICAL**
 Observes trip of "C" SI Pump.

Conditions :
 Observes trip of pump.
 Notifies supervision.
 CUE: (If necessary) Use the "B"
 pump to fill the accumulators.

Standards :
 Same as element.

Comments :

Satisfactory Unsatisfactory

22 **Element :**
 Notify AO of impending start of
 "B" pump.

Conditions :

Standards :
 Same as element.

Comments :

Satisfactory Unsatisfactory

*23 **Element :** **CRITICAL**
 Starts "B" SI Pump.

Conditions :

Standards :
 Same as element.

Comments :

Satisfactory

Unsatisfactory

24

Element :

Verify pump discharge pressure 1500 psi on PI-923.

Conditions :

Standards :

Observes PI-923.

Comments :

Satisfactory

Unsatisfactory

*25

Element :

CRITICAL

When desired level is obtained, stop operating pump and place in auto.

Conditions :

Standards :

- At >57% and <75% level stop pump.

- Observes accumulator pressure during fill to ensure precaution 4.2 satisfied.

Comments :

Satisfactory

Unsatisfactory

*26

Element :

CRITICAL

Close Accumulator Fill Valve.

Conditions :

Standards :

Closes AOV-835B.

Comments :

Satisfactory

Unsatisfactory

27

Element :

Initiate A-52.4 on "C" SI pump.

Conditions :

CUE: No further actions.

Standards :

Not necessary to fill out procedure.

Comments :

Satisfactory

Unsatisfactory

28

Element :

OPTION 3

Conditions :

Standards :

Comments :

Satisfactory

Unsatisfactory

29 **Element :**
Obtain a copy of procedure
S-16.13 and review precautions
and notes.

Conditions :

Standards :
Same as element

Comments :

Satisfactory

Unsatisfactory

30 **Element :**
Verify open Suction from RWST,
MOV-825A and MOV-825B.

Conditions :

Standards :
Same as element.

Comments :

Satisfactory

Unsatisfactory

31 **Element :**
Verify open Recirc Valves to
RWST, MOV-897 and MOV-898.

Conditions :

Standards :
Same as element.

Comments :

Satisfactory

Unsatisfactory

*32 **Element :** **CRITICAL**
Open "B" Accumulator Fill
Valve.

Conditions :

Standards :
Same as element.

Comments :

Satisfactory

Unsatisfactory

33 **Element :**
Notify AO of impending start of
"C" Pump.

Conditions :

Standards :
Same as element.

Comments :

Satisfactory

Unsatisfactory

34 **Element :**
N/A steps 5.6, 5.7 and 5.8.1.

Conditions :

Standards :
Same as element.

Comments :

Satisfactory

Unsatisfactory

- *35 **Element :** CRITICAL
Starts "C" SI Pump
- Conditions :**
- Standards :**
Same as element.
- Comments :**
- Satisfactory Unsatisfactory
-
- 36 **Element :**
Verify pump discharge pressure approx. 1500 psi on PI-923.
- Conditions :**
- Standards :**
Same as element.
- Comments :**
- Satisfactory Unsatisfactory
-
- *37 **Element :** CRITICAL
Stop filling when High Pressure Alarm actuates.
- Conditions :**
High Pressure Alarm 760 psi, stop filling prior to 800 psig.
- Standards :**
Stop "C" SI Pump.
- Comments :**
- Satisfactory Unsatisfactory
-
- *38 **Element :** CRITICAL
Close AOV-835B
- Conditions :**
- Standards :**
Same as element.
- Comments :**
- Satisfactory Unsatisfactory
-
- 39 **Element :**
Observe Precaution 4.2 or Alarm Response Alarm Response for High Pressure (C-12)
- Conditions :**
Goes to S-16.18 to reduce Accumulator Pressure
- Standards :**
Goes to S-16.18.
- Comments :**
- Satisfactory Unsatisfactory
-
- 40 **Element :**
Review Initial Conditions of S-16.18
- Conditions :**
CUE: Accumulator lineup is normal (if needed).
- Standards :**
Same as element.
- Comments :**
- Satisfactory Unsatisfactory
-

41 **Element :** Observe Precautions. **Conditions :** **Standards :** Same as element.

Comments :

Satisfactory Unsatisfactory

42 **Element :** Verify Valve Lineup
 - AOV 846 closed
 - SOV-8604A closed
 - SOV-8604B closed **Conditions :** **Standards :** Same as element.

Comments :

Satisfactory Unsatisfactory

43 **Element :** N/A Step 5.5 - 5.5.6 **Conditions :** **Standards :** Same as element.

Comments :

Satisfactory Unsatisfactory

44 **Element :** Verify AOV-834A closed. **Conditions :** **Standards :** Same as element.

Comments :

Satisfactory Unsatisfactory

*45 **Element :** CRITICAL
 Open AOV-834B **Conditions :** **Standards :** Same as element.

Comments :

Satisfactory Unsatisfactory

*46 **Element :** CRITICAL
 Throttle open HCV-945 **Conditions :** Slowly opens to depressurize to ~ 740 psig, does not go below 700 psig. **Standards :** Throttles open HCV-945. Closes when pressure decrease to desired value.

Comments :

Satisfactory

Unsatisfactory

*47 **Element :** CRITICAL **Conditions :** **Standards :**
Close AOV-834B Same as element.

Comments :

Satisfactory

Unsatisfactory

48 **Element :** **Conditions :** **Standards :**
Verify Accumulator Pressure is > 700 psi Same as element.

Comments :

Satisfactory

Unsatisfactory

Element : **Conditions :** **Standards :**
Obtain copy of procedure S-16.13 and review precautions and notes. (Note: May use original S-16.13 and repeat steps) Same as element.

Comments :

Satisfactory

Unsatisfactory

50 **Element :** **Conditions :** **Standards :**
Verify open Suction from RWST, MOV-825A and MOV-825B. Same as element.

Comments :

Satisfactory

Unsatisfactory

51 **Element :** **Conditions :** **Standards :**
Verify open Recirc Valves to RWST, MOV-897 and MOV-898. Same as element.

Comments :

Satisfactory

Unsatisfactory

*52 **Element :** CRITICAL **Conditions :** **Standards :**
 Open "B" Accumulator Fill Valve. Open AOV-835B.

Comments :

Satisfactory

Unsatisfactory

53 **Element :** **Conditions :** **Standards :**
 Notify AO of impending start of "C" SI Pump. Same as element.

Comments :

Satisfactory

Unsatisfactory

54 **Element :** **Conditions :** **Standards :**
 N/A steps 5.6, 5.7 and 5.8.1. Same as element.

Comments :

Satisfactory

Unsatisfactory

*55 **Element :** CRITICAL **Conditions :** **Standards :**
 Starts "C" SI pump Same as element.

Comments :

Satisfactory

Unsatisfactory

56 **Element :** **Conditions :** **Standards :**
 Verify pump discharge pressure 1500 psi on PI-923. Observes PI-923.

Comments :

Satisfactory

Unsatisfactory

*57 **Element :** CRITICAL **Conditions :** **Standards :**
 When desired level is obtained, stop operating pump and place in auto. - At >57% and <75% level stop pump.
 - Observes accumulator pressure during fill to ensure precaution 4.2 satisfied.

Comments :

Satisfactory

Unsatisfactory

*58 **Element :** CRITICAL **Conditions :** **Standards :**
Close Accumulator Fill Valve. CUE No further action. Closes AOV-835B.

Comments :

Satisfactory

Unsatisfactory

JPM NO JR029.001

Startup the Containment Mini Purge

Revision #: 1

Review Date: 1/28/2004

Location: Simulator

Estimated Time (minutes): 8.00

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

Initial Conditions:

A routine Cnmt entry is required tomorrow.

Initiating Cues :

The Shift Supervisor directs you to place Mini Purge System in service. A Containment Mini-Purge Release has been initiated and SS & 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 completed up to Step 5.1 | 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 : <u>CRITICAL</u>
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"/> | |
| *6 | Element : <u>CRITICAL</u>
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.
~~Option 1: No further actions.~~**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

*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 JC061.005

Reset TDAFW Pump Turbine Trip/Throttle Valve

Revision #: 6

Review Date: 1/29/2004

Location: In Plant

Estimated Time (minutes): 6.00

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

Initial Conditions:

The plant has experienced a control complex fire and the Shift Supervisor has implemented ER-FIRE.1, ALTERNATIVE SHUTDOWN FOR CONYTRONL COMPLEX FIRE. The reactor was tripped, the MSIVs were closed. the turbine generator was verified tripped and the RCPs were tripped.

Initiating Cues :

The plant has experienced a control complex fire and the Shift Supervisor has implemented ER-FIRE.1, ALTERNATIVE SHUTDOWN FOR CONTROL COMPLEX FIRE. You have your equipment from the Appendix R Locker. Upon verifying the TDAFW Pump governor reset, you discover it tripped. Reset the TDAFW Pump governor IAW ER-FIRE.1 ATT 6. SIMULATE ONLY> Do not manipulate any plant equipment.

Description: Reset TDAFW Pump Turbine Trip/Throttle Valve 1) No Fault, 2) Faulted: Trip Hoc

JPM Tasks

Task ID: 061-012-04-01A

Task Standards

In accordance with the procedure

Tools :

Safety Glasses

Hard Hat

Hearing Protection

Terminating Cues

Trainee Says Task is Completed

Task Completion

References :

ID

Description

Review Date

Ref Flag



Safety Considerations :

Consequences of Inadequate Performance:

Failure to provide adequate heat sink during a plant fire.

General Comments :

Supply copy of ER-FIRE.1.

Performance Checklist

- 1 **Element :** NOTE/CUE
Conditions : INSTRUCTOR NOTE: Start at the TDAFW Pump.
CUE: DC Oil Pump is running.
Standards :
- Comments :**
- Satisfactory Unsatisfactory
-
- *2 **Element :** **CRITICAL**
Pull out plunger handle (YELLOW) until bellows stem engages plunger rod.
Conditions : CUE: Bellows stem has engaged plunger rod.
Standards : Locate handle, simulate pulling out.
- Comments :**
- Satisfactory Unsatisfactory
-
- *3 **Element :** **CRITICAL**
Turn Trip Throttle Valve handwheel in clockwise direction until latching lever reaches end of travel.
Conditions : CUE: Latching lever is at end of travel.
Standards : Locate and simulate turning valve.
- Comments :**
- Satisfactory Unsatisfactory
-
- *4 **Element :** **CRITICAL**
Verify trip hook engaged.
Conditions : OPTION #1 CUE: Trip hook has engaged latching lever.
OPTION #2 CUE: Trip hook is not engaged.
- Comments :**
- Satisfactory Unsatisfactory
-
- Element :** **CRITICAL**
(FOR OPTION #2)
Depress and hold down main trip valve (ORANGE) until trip hook engages latching lever.
Conditions : CUE: Trip hook has engaged latching lever.
Standards : Locate and simulate pressing down.

Comments :

Satisfactory

Unsatisfactory

*6

Element : **CRITICAL**
Reset Trip Throttle Valve by turning handwheel in CCW direction until valve is fully open.

Conditions :
CUE: Valve no longer turns in that direction.

Standards :
Locate and simulate opening.

Comments :

Satisfactory

Unsatisfactory

7

Element :
Notify SS reset complete.

Conditions :
TERMINATING CUE: No further actions required.

Standards :
Same as element.

Comments :

Satisfactory

Unsatisfactory

JPM NO JC063.001

Align TSC DC Supply to MAIN FUSE CABINET 1B

Revision #: 5

Review Date: 1/27/2004

Location: In Plant

Estimated Time (minutes): 35.00

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

Initial Conditions:

The plant experienced a Cable Tunnel fire. The shift has implemented ER-FIRE.2.

Initiating Cues :

The Shift Supervisor directs you to align TSC DC supply to Main Fuse Cabinet 1B per Step 2.5.2 of Attachment 8 of ER-FIRE.2.

Description: Align TSC DC Supply to Main Fuse Cabinet 1B (JC063.001)

JPM Tasks

Task ID: 063-010-01-04A

Task Standards

In accordance with the procedure

Tools :

Key

Hearing Protection

Safety Glasses

Hard Hat

Appendix R Tool Pouch

Safety Shoes

Terminating Cues

Task Completion

Trainee Says Task is Completed

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRER ER-FIRE.2	ALTERNATE SHUTDOWN FOR CABLE TUNNEL FIRE		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

Copy of Attachment 8 of ER-FIRE.2.

Performance Checklist

- | | | | |
|----|--|--|---|
| 1 | Element :
INSTRUCTOR | Conditions :
Hand student Attachment 8 of ER-FIRE.2. Inform student that obtaining keys will not be necessary. Simulate having the necessary keys. | Standards : |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *2 | Element : <u>CRITICAL</u>
Place Battery B Main Disconnect to OFF. | Conditions :
CUE: Disconnect is off. | Standards :
Locate disconnect in the B Battery Room and position to OFF. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *3 | Element : <u>CRITICAL</u>
Verify Pos. #3 CP TSC-VITAL BATT INTERTIE A2Y-600 is in the ON position. | Conditions :
CUE: Intertie is on. | Standards :
Locate intertie in Battery B Main Fuse Cabinet Sect II and verify on. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *4 | Element : <u>CRITICAL</u>
Unlock and place TSC/BATTERY B fused disconnect panel switch to ON. | Conditions :
CUE: Switch is on. | Standards :
Locate switch in the B Battery Room and place to ON. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *5 | Element : <u>CRITICAL</u>
Verify TSC/BATT A/B disconnect switch in ON. | Conditions :
CUE: Switch is in ON. | Standards :
Locate switch in TSC Battery Room and verify switch is on. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |

*6 **Element :** CRITICAL **Conditions :** **Standards :**
 Insert interlock key into the B CUE: Key is inserted in "B" Locate TSC/BATTERY A/B
 Battery position. position. throwover panel and insert
 key in "B" Battery position.

Comments :

Satisfactory Unsatisfactory

*7 **Element :** CRITICAL **Conditions :** **Standards :**
 Place the B key switch in service. CUE: "B" key switch is in service. Unlocks "B" switch.

Comments :

Satisfactory Unsatisfactory

*8 **Element :** CRITICAL **Conditions :** **Standards :**
 Place the B manual throwover CUE: Switch is closed. Same as element.
 switch in CLOSED.

Comments :

Satisfactory Unsatisfactory

9 **Element :** **Conditions :** **Standards :**
 Notify SS that TSC Battery is tied CUE: No further actions. Same as element.
 to the B Train DC Dist. System.

Comments :

Satisfactory Unsatisfactory

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
----------------	--------------	-------------	----------

JPM NO JC103.007

Perform ATTACHMENT CI/CVI

Revision #: 0

Review Date: 1/28/2004

Location: In Plant

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

Initial Conditions:

The plant has experienced a Safety Injection. While performing action steps of E-0, REACTOR TRIP OR SAFETY INJECTION, it was found that the Containment Isolation Valves were not properly lined up.

Initiating Cues :

The plant is in the actions steps of E-0. Several Containment Isolation Valves have failed, you have been directed using the CI/CVI Attachment to isolate the failed valves using the alternate isolation valves.

Valves that have failed to close:

~~SOV-922 H2 Monitor Return Valve~~ 
AOV-539 PRT to Gas Analyzer
MOV-814 CCW to Rx Support Cooler
AOV-1723 CNMT Sump A Pump Discharge
AOV-1728 CNMT Sump A Pump Discharge

Description: Perform ATTACHMENT CI/CVI (JC103.007)

JPM Tasks

Task ID: 103-007-05-04

Task Standards

In accordance with the procedure

Tools :

Terminating Cues

References :

<u>ID</u>		<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
NLOQR	SECTION VI	Primary Side Operator		<input type="checkbox"/>
PRATT	ATT-3.0	ATTACHMENT CI/CVI		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

Failure to isolate CNMT penetration could result in an uncontrolled release of radioactive material to the environment.

General Comments :

Supply copy of Att-3.0 CI/CVI

Supply key 59 for the H2 Monitors (get from SS)

Notify SS that the door to the "A" H2 monitor will be opened for this JPM.

Performance Checklist

- | | | | |
|-------|---|---|--|
| 1 | Element :
NOTES | Conditions :
NOTE: Sequence is not critical.

CUE: Give copy of the attachment to the student and key 59. | Standards : |
| | Satisfactory | <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| 2 | Element :
Proceed to Intermediate Building,
Clean Side Basement. | Conditions : | Standards :
Same as element. |
| | Satisfactory | <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| | Element : <u>CRITICAL</u>
Close valve V-928B. | Conditions :
CUE: Valve no longer turns in that direction. | Standards :
Locate valve. Simulate closing. ("A" H2 monitor cabinet) |
| | Satisfactory | <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| 4 | Element :
Proceed to Aux. Building Middle Level | Conditions : | Standards :
Same as element. |
| | Satisfactory | <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| *5 | Element : <u>CRITICAL</u>
Close valve V-546. | Conditions :
CUE: Valve no longer turns in that direction. | Standards :
Locate valve, simulate closing. |
| | Satisfactory | <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| *6 | Element : <u>CRITICAL</u>
Close V-815A. | Conditions :
CUE: Valve no longer turns in that direction. | Standards :
Locate valve. Simulate closing. |

Comments :

Satisfactory

Unsatisfactory

7 **Element :**
Proceed to Aux. Building Waste Disposal Panel.

Conditions :

Standards :
Same as element.

Comments :

Satisfactory

Unsatisfactory

*8 **Element :** **CRITICAL**
Place switches for AOV-1723/1728 to close.

Conditions :
CUE: Valve indicates closed (green light on)

Standards :
Locate switches. Simulate closing.

Comments :

Satisfactory

Unsatisfactory

Element :
Notifies Control Room.

Conditions :
CUE: No further action.

Standards :

Comments :

Satisfactory

Unsatisfactory

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
-----------------------	---------------------	--------------------	-----------------