

JPM NO JA001.008

Calculate Shutdown Margin for Operating Reactor with an Untrippable Rod

Revision #: 02

Review Date: 9/14/2004

Location: Simulator

Estimated Time (minutes): 21.00

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:

See the attached Data Sheet

Initiating Cues :

Shift Supervisor requests a SDM Calculation, Rod K-7 has been determined to be untrippable.

Description: Calculate SDM for Operating Reactor with an Untrippable Rod (JA001.008)

JPM Tasks

Task ID: 351-010-01-05A

Task Standards

In accordance with the procedure

Tools :

Calculator

Procedures

Terminating Cues

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PRO O-3.2	SHUTDOWN MARGIN FOR AN OPERATING REACTOR		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

May be performed on Simulator or in Control Room.

If Simulator used, any at power IC.

Predetermined data of BURNUP, RX POWER, BORON CONCENTRATION and ROD HEIGHT filled out in an O-3.2.

Performance Checklist

- | | | | |
|----|---|--|--|
| 1 | Element :
Obtain controlled copy of O-3.2. | Conditions :
CUE: Give student copy of O-3.2. | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 2 | Element :
Review procedure and verify initial conditions. | Conditions : | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *3 | Element : <u>CRITICAL</u>
Properly collect and record data in O-3.2. | Conditions :
CUE: Give student predetermined data. | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *4 | Element : <u>CRITICAL</u>
Properly perform calculations per O-3.2. | Conditions : | Standards :
Same as element.
1) Read power defect +/- 25 pcm.
2) If interpolate allow any value between rows.
3) Calculated SDM +/- 50 pcm of answer key. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 5 | Element :
Compare SDM to ITS 3.1.1 and COLR. | Conditions :
TERMINATING CUE: No further actions required. (Attach completed O-3.2 to this JPM.) | Standards : |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |

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Initial Conditions:

See the attached Data Sheet

Initiating Cues :

Shift Supervisor requests a SDM Calculation, Rod K-7 has been determined to be untrippable.

DATA SHEET

Rx Power 99.9%

Burnup 8960 MWD/MTU

Control Rod Position

SD Bank A - 227 step

Bank A - 228 steps

Bank B - 229 steps

Bank C - 230 steps

Bank D - 198 steps

Tave 561.1 °F

Boron 855 ppm Sample 11/1/04/0800

JPM NO JC342.002

Approve Confined Space Entry Permit 1) No Faults 2) Errors on Permit

Revision #: 0

Review Date:

Location: Simulator/Classroom

Estimated Time (minutes): 10.00

Candidate: _____

Evaluator: _____

Actual Time: _____

Trainee Performance: Satisfactory _____ Unsatisfactory _____

Trainee: _____

Instructor: _____

Submitted By _____ Date _____

Reviewed By _____ Date _____

NOTE

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Initial Conditions:

The "A" condensate storage tank has been isolated and drained in preparation for visual inspection.

Initiating Cues :

The "A" condensate storage tank has been isolated and drained in preparation for entry to visually inspect the tank. You as the Shift Supervisor are to review and either approve or disapprove the A.1.6.4.1 "Confined Space Entry Permit."

Description: Approve Confined Spaces Entry Permits

JPM Tasks

Task ID: 342-020-03-03

Task Standards

- 1) Authorize Confined Space Entry Permit.
- 2) Determine Permit cannot be authorized due to inadequate isolation.

Tools :

Terminating Cues

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PROPSA A-1.6.4	Requirements for Safe Work in Confined Spaces		<input type="checkbox"/>
PROPSA A-1401	STATION HOLDING RULES		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

Provide P& ID and A-1401 Figure 1 to student. Incorporate error on A-1401 Fig 1 of 4074 (AFW recirc to "B" CST) vs 4075 (AFW recirc to "A" CST) for Option 2.

Performance Checklist

- | | | | |
|----|--|--|--|
| 1 | Element :
Cue: Provide candidate with copy of marked up A.1.6.4.1 Confined Space Entry Permit. | Conditions : | Standards : |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 2 | Element :
Review SS responsibilities for confined space entry permit (CSEP). | Conditions : | Standards :
Obtains current copy of A-1.6.4, "Requirements for Safe Work in Confined Space" and refers to Attach B |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| | Element : <u>CRITICAL</u>
Ensure permit required confined space is properly isolated, held and at atmospheric pressure. | Conditions : | Standards :
Same as Element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *4 | Element : <u>CRITICAL</u>
Option 1 - Boundary is adequate.
Option 2 - Boundary is inadequate. | Conditions :
Note: 4075 is correct AFW recirc to "A" CST | Standards :
Option 1 - Determines that hold is adequate.
Option 2 - determines that 4074 is not correct valve to isolate "A" CST. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *5 | Element : <u>CRITICAL</u>
Option 1- Approves CSEP
Option 2 - Disapproves CSEP | Conditions :
Cue: No further action required. | Standards :
Same as Element |

Comments :

Satisfactory

Unsatisfactory

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
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NOTE

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Initial Conditions:

The "A" condensate storage tank has been isolated and drained in preparation for visual inspection.

Initiating Cues :

The "A" condensate storage tank has been isolated and drained in preparation for entry to visually inspect the tank. You as the Shift Supervisor are to review and either approve or disapprove the A.1.6.4.1 "Confined Space Entry Permit."

JPM NO JS343.002

A-52.4, Control of Limiting Conditions for Operation Evaluation

Revision #: 3

Review Date: 9/16/2004

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:

Plant is at 55% power, Mini-Purge is not in service, no other equipment has an A-52.4 submitted on it.

Initiating Cues :

Shift Supervisor requests "A" SI Pump be deemed inoperable and asks you to fill out an A-52.4 to declare the component inoperable. The equipment is inoperable due to low flow during testing. Required testing for operability will be determined after investigation of the problem. Use present date and time for when the component is to be deemed inoperable. AR 2004-1147 has been submitted to document the failure. This is the only equipment currently inoperable.

Description: A-52.4, Control Of Limiting Conditions For Operation Evaluation

JPM Tasks

Task ID: 300-003-03-02A

Task Standards

In accordance with the procedure

Tools :

Terminating Cues

Trainee Says Task is Completed

Task Completion

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PROPSA A-52.4	CONTROL OF LIMITING CONDITIONS FOR OPERATING EQUIPMENT		<input type="checkbox"/>
TECHSP ITS 3.0	LIMITING CONDITION FOR OPERATION (LCO) AND SURVEILLANCE REQUIREMENT (SR) APPLICABILITY		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

General Comments :

Prepare an A-52.4 Attachment I as a key.

Performance Checklist

- | | | | |
|----|---|--|--|
| 1 | Element :
Obtain controlled copy of A-52.4 or Attachment. | Conditions : | Standards :
Same as element. |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 2 | Element :
Properly fill in data in Step 3.2.1. | Conditions : | Standards :
Same as element |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *3 | Element : <u>CRITICAL</u>
Step 3.2.2 Determine plant is in Mode 1, record mode. | Conditions :
Plant is > 5% power. | Standards :
Same as element |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *4 | Element : <u>CRITICAL</u>
Step 3.3.3 Determine TS 3.5.2 affected. Record in Attachment I | Conditions :
Checks Tech Spec (and Basis) to determine proper spec. | Standards :
Same as element |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| *5 | Element : <u>CRITICAL</u>
Step 3.2.4 Perform Safety Function determination (Attachment II) Initial line for completion | Conditions :
Attachment II
1) No support spec entered
2) Only one TS entered
3) Therefore, no loss of safety function | Standards :
Same as element |
| | Comments : | | |
| | Satisfactory <input type="checkbox"/> | Unsatisfactory <input type="checkbox"/> | |
| 6 | Element :
Step 3.2.5 Record EOOS colors | Conditions :
CUE: EOOS is Green for both PRF and top level system | Standards :
Same as element |

Comments :

Satisfactory

Unsatisfactory

*7

Element : **CRITICAL**
 Step 3.2.6 Determine required
 action and record

Conditions :
 TS 3.5.2A
 - One full train available
 - 72 hours to restore

Standards :
 Same as element

Comments :

Satisfactory

Unsatisfactory

*8

Element : **CRITICAL**
 Step 3.2.13 Determine Require
 Action/Completion Time not met
 times and record

Conditions :
 TS 3.5.2B
 - Mode 3 6 hours
 - Mode 4 12 hours

Standards :
 Same as element

CUE: No further actions

Comments :

Satisfactory

Unsatisfactory

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
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NOTE

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Initial Conditions:

Plant is at 55% power, Mini-Purge is not in service, no other equipment has an A-52.4 submitted on it.

Initiating Cues :

Shift Supervisor requests "A" SI Pump be deemed inoperable and asks you to fill out an A-52.4 to declare the component inoperable. The equipment is inoperable due to low flow during testing. Required testing for operability will be determined after investigation of the problem. Use present date and time for when the component is to be deemed inoperable. AR 2004-1147 has been submitted to document the failure. This is the only equipment currently inoperable.

JPM NO JS340.019

Implement EPIP 1-13 Local Radiation Emergency

Revision #: 0

Review Date: 9/16/2004

Location: Plant or Simulator

Estimated Time (minutes): 15.00

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 at 100% power. RP and Rad Waste personnel are in the process of transferring spent resin from the Spent Resin Storage tank to a Spent Resin Transport cask.

Initiating Cues :

While transferring resin, the transfer hose coupling fails spilling spent resin on the Auxiliary Building floor near the resin transfer station. Rad Monitor R-8, Drumming Station, is in alarm reading 500 mR/hr and Plant Vent Monitors R-13 and R-14 increase to 1000 cps and 900 cps respectively. The spill has been stopped but several individuals may be contaminated. Take action as the Shift Supervisor to address this condition.

Description: Direct Shift Personnel Actions To Ensure Plant Safety During Abnormal Condition

JPM Tasks

Task ID: 344-002-04-02

Task Standards

Correctly implements Required Action of EPIP 1-13 to address the resin spill.

Tools :

Terminating Cues

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
PREPIP EPIP 1-13	LOCAL RADIATION EMERGENCY		<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

Inadequately protect the safety of plant personnel.

General Comments :

Performance Checklist

- | | | | |
|-------------------|---|--|---|
| *1 | Element : <u>CRITICAL</u>
Reviews Cue. Determines Local Radiation Emergency exists. | Conditions :
Resin spill in Aux. Building High Rad Alarm @ Drumming Station and spill raising contamination levels. | Standards :
Enters EPIP 1-13. |
| Comments : | | | |
| | Satisfactory <input type="checkbox"/> | | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| *2 | Element : <u>CRITICAL</u>
Notifies Control Room Operators to perform actions announcements and notifications. | Conditions :
EPIP 1-13 Requires announcement for Radiation Emergency. | Standards :
Notifies Evaluator to make announcement to evacuate the affected location (Aux. Building Top Level) |
| Comments : | | | |
| | Satisfactory <input type="checkbox"/> | | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| *3 | Element : <u>CRITICAL</u>
Notifies RP to rope off and post the area. | Conditions :
CUE: RP has completed its initial survey and determined that dose rate of up to 1 R/hr and contamination level of > 5 mRad smearable exist in the area. | Standards :
Same as element. |
| Comments : | | | |
| | Satisfactory <input type="checkbox"/> | | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| 4 | Element :
Check EPIP 1-0 for classification. | Conditions :
Not classifiable. | Standards :
Same as element. |
| Comments : | | | |
| | Satisfactory <input type="checkbox"/> | | Unsatisfactory <input type="checkbox"/> |
| <hr/> | | | |
| *5 | Element : <u>CRITICAL</u>
Notify RP and Maintenance Manager. | Conditions :
Notifies RP and Maintenance Manager to allow them to develop a recovery plant. | Standards :
Same as element. |

Comments :

Satisfactory

Unsatisfactory

*6 **Element :** CRITICAL
Notify RP to monitor individual
for contamination.

Conditions :
Several individuals may be
contaminated.

Standards :
Same as element.

CUE: No further actions

Comments :

Satisfactory

Unsatisfactory

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
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NOTE

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Initial Conditions:

The plant is at 100% power. RP and Rad Waste personnel are in the process of transferring spent resin from the Spent Resin Storage tank to a Spent Resin Transport cask.

Initiating Cues :

While transferring resin, the transfer hose coupling fails spilling spent resin on the Auxiliary Building floor near the resin transfer station. Rad Monitor R-8, Drumming Station, is in alarm reading 500 mR/hr and Plant Vent Monitors R-13 and R-14 increase to 1000 cps and 900 cps respectively. The spill has been stopped but several individuals may be contaminated. Take action as the Shift Supervisor to address this condition.

JPM NO JS340.020

Event Classification

Revision #: 0

Review Date: 9/14/2004

Location: Simulator

Estimated Time (minutes): 15.00

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 has gone through the transient that you have just seen.

Initiating Cues :

What is the correct classification for the event.

Description: Direct Emergency Response As Site Emergency Coordinator

JPM Tasks

Task ID: 344-023-05-03

Task Standards

Classify the event correctly.

Tools :

Terminating Cues

Classification complete

References :

<u>ID</u>	<u>Description</u>	<u>Review Date</u>	<u>Ref Flag</u>
			<input type="checkbox"/>

Safety Considerations :

Consequences of Inadequate Performance:

Failure to protect the safety and health of the general public.

General Comments :

This JPM is written for use with either of the NRC Initial License Exam Scenario 04-2-1 or 04-2-2.

Performance Checklist

*1	Element : <u>CRITICAL</u> Classify the Event.	Conditions : Uses Simulator data and EPIP 1-0 to classify the event. CUE: No further actions.	Standards : Scenario 04-2-1 Classify as an Alert 1.4.1. Scenario 04-2-1 Classify as an Alert 3.1.3.
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Comments :

Satisfactory

Unsatisfactory

JPM Questions

Question

Answer

References

Reference Type	Reference ID	Description	Ref Flag
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