

IN-PLANT JPM

NP-1

REACTOR OPERATOR
SRO - I
SRO - U

Facility: Davis-Besse **Task No:** 000-048-05-0100**Task Title:** Place a High Pressure Train on alternate minimum recirc flowpath**K/A Reference:** (006) A4.05 **Job Performance Measure No:** JPM 256**Examinee:** _____**NRC Examiner:** _____ **Date:** _____**Method of testing:**

Simulated Performance ____ Actual Performance ____

Classroom ____ Simulator ____ Plant X ____***Read to the examinee:***

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

The plant conditions are specified in the Initial Conditions and Initiating Cues

Task Standard:

Place a High Pressure Train on Alternate Minimum Recirc Flowpath

Required Materials:

DB-OP-02000, EOP, Rev 25, Attachment 14

General References:**Initiating Cue:**

The plant conditions are specified in the Initial Conditions and Initiating Cues

Time Critical Task: No**Validation Time:** 8 minutes

EXAMINER COPY**High Pressure Injection Train 1****INITIAL CONDITIONS**

A Loss of Coolant Accident has caused a loss of Subcooling Margin

Subcooling Margin has been regained

Borated Water Storage Tank level is lowering at 1.5 feet/hour

INITIATING CUE

The Unit Supervisor directs you to place the High Pressure Injection Train 1 alternate minimum recirc flowpath in service in accordance with Section 1.0 of Attachment 14 of DB-OP-02000, RPS, SFAS, SFRCS Trip, or Steam Generator Tube Rupture

The Shift Manager has given permission to operate locked valves during the lineup

(Provide a copy of DB-OP-02000 Attachment 14, Establishing HPI Alternate Minimum Recirc Flowpath)

CANDIDATE COPY**INITIAL CONDITIONS**

A Loss of Coolant Accident has caused a loss of Subcooling Margin

Subcooling Margin has been regained

Borated Water Storage Tank level is lowering at 1.5 feet/hour

INITIATING CUE

The Unit Supervisor directs you to place the High Pressure Injection Train 1 alternate minimum recirc flowpath in service in accordance with Section 1.0 of Attachment 14 of DB-OP-02000, RPS, SFAS, SFRCS Trip, or Steam Generator Tube Rupture

The Shift Manager has given permission to operate locked valves during the lineup

PERFORMANCE INFORMATION

NOTE: Critical steps denoted with a "C". Failure to meet any one of these standards for this item constitutes failure. Sequence is NOT required unless denoted in the "Comments".

START TIME: _____

1. PERFORMANCE STEP: Locate the correct section in Attachment 14

STANDARD: Identifies section 1.0 of Attachment 14 for aligning High Pressure Injection Train 1 alternate minimum recirc

CUE: **None**

SAT UNSAT

2. PERFORMANCE STEP: Proceed to ECCS Room 1

STANDARD: Proceeds to ECCS Room 1

CUE: **None**

SAT UNSAT

3. PERFORMANCE STEP: Record HPI Pump 1 discharge pressure

STANDARD: Record pressure indicated on PIHP5B

Cue: **PIHP5B indicates 1800 psi**

SAT UNSAT

4. PERFORMANCE STEP: Disable DH64

C

STANDARD: Place HSDH64 in the DISABL position

CUE: **(If necessary) The Shift Manager recognizes the switch nomenclature is incorrect and will initiate a procedure change request (SAP DCR)
The Shift Manager directs you to continue with the attachment.**

CUE: **HSDH64 RED disable pushbutton has been depressed
HSDH64 GREEN enable pushbutton pops out**

SAT UNSAT

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5. PERFORMANCE STEP: Record Decay Heat Pump 1 discharge pressure

STANDARD: Record pressure indicated on PIDH05B

CUE: **(If necessary) The Shift Manager recognizes the gauge nomenclature is incorrect and will initiate a procedure change request (SAP DCR)
The Shift Manager directs you to continue with the attachment**

CUE: **PIDH05B indicates 195 psi**

SAT UNSAT

6. PERFORMANCE STEP: Record HPI Pump 1 alternate minimum recirc line pressure

STANDARD: Record pressure indicated on PI3000

CUE: **PI3000 indicates 0 psi**

SAT UNSAT

7. PERFORMANCE STEP: Unlock and open HP91, HPI 1 Alternate Minimum Flow Line
 C Upstream Isolation

STANDARD: Unlock and rotate handwheel of HP91 in the counter clock-wise direction

CUE: **Valve has been unlocked
Valve handwheel has been rotated in counter clock-wise direction
The valve stem is up
(If performed) HP91 handwheel has been rotated in the clockwise direction ¼
turn**

SAT UNSAT

8. PERFORMANCE STEP: Unlock and open HP92, HPI 1 Alternate Minimum Flow Line
 C Downstream Isolation

STANDARD: Unlock and rotate handwheel of HP92 in the counter clock-wise direction

CUE: **Valve has been unlocked
Valve handwheel has been rotated in counter clock-wise direction
The valve stem and handwheel rise
(If performed) HP92 handwheel has been rotated in the clockwise direction ¼
turn**

SAT UNSAT

9. PERFORMANCE STEP: Record HPI Pump 1 alternate minimum recirc line pressure

STANDARD: Record pressure indicated on PI3000

CUE: **PI3000 indicates 950 psi**

SAT UNSAT

10. PERFORMANCE STEP: Notify the Control Room HPI 1 alternate minimum recirc line-up is complete

STANDARD: Use GAI-TRONICS or radio to communicate with the Control Room

CUE: **Control Room acknowledges HPI 1 alternate recirc line-up is complete**

SAT UNSAT

TERMINATING CUES: **This JPM is complete. (Terminated by the evaluator)**

END TIME

Verification of Completion**Job Performance Measure No.** NP - 1**Examinee's Name:** _____**Examiner's Name:** _____**Date Performed:** _____**Facility Evaluator:** _____**Number of Attempts:** _____**Time to Complete:** _____**Question Documentation:****Question:** _____

_____**Response:** _____

_____**Result:** Satisfactory/Unsatisfactory**Examiner's signature and date:** _____

IN-PLANT JPM

NP-2

REACTOR OPERATOR SRO - I

Facility: Davis-Besse **Task No:** 063-006-01-0100**Task Title:** Place Swing Charger in Service**K/A Reference:** (063) K 1.03 **Job Performance Measure No:** JPM 069**Examinee:** _____**NRC Examiner:** _____ **Date:** _____**Method of testing:**Simulated Performance X Actual Performance Classroom Simulator Plant X ***Read to the examinee:***

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

The plant conditions are specified in the Initial Conditions and Initiating Cues.

Task Standard:

Place a Swing Charger in Service

Required Materials:

DB-OP-06321 250/125 VDC STATION DC SWITCHING PROCEDURE, Rev 13, Section 4.7

General References:**Initiating Cue:**

The plant conditions are specified in the Initial Conditions and Initiating Cues

Time Critical Task: No**Validation Time:** 17 minutes

EXAMINER COPY**TRAIN 2****INITIAL CONDITIONS:**

The plant is in Mode 1.

All systems are in a normal lineup.

INITIATING CUES:

The Unit Supervisor directs you to perform a live transfer to place swing battery charger DBC 2PN in service for charger DBC 2P, in accordance with section 4.7 of DB-OP-06321.

There is NO fault on charger DBC 2P.

Section 4.7 prerequisites have been completed.

(Provide the examinee a copy of section 4.7 of DB-OP-06321)

CANDIDATE COPY**INITIAL CONDITIONS:**

The plant is in Mode 1

All systems are in a normal lineup

INITIATING CUES:

The Unit Supervisor directs you to perform a live transfer to place swing battery charger DBC 2PN in service for charger DBC 2P, in accordance with section 4.7 of DB-OP-06321

There is NO fault on charger DBC 2P

Section 4.7 prerequisites have been completed

PERFORMANCE INFORMATION

NOTE: Critical steps denoted with a "C". Failure to meet any one of these standards for this item constitutes failure. Sequence is NOT assumed unless denoted in the "Comments".

START TIME: _____

1. PERFORMANCE STEP: Open/verify open DC Output Breakers D205 and D221

STANDARD: Verify handswitch in the OFF position

CUE: **D205 indicates OFF/TRIPPED**
D221 indicates OFF/TRIPPED

SAT UNSAT

2. PERFORMANCE STEP: Verify stable voltage on battery charger DBC 2PN

STANDARD: Voltmeter P2-225 on battery charger DBC2PN reads between 130V and 140V

CUE: **Voltage reads 132V and stable**

SAT UNSAT

3. PERFORMANCE STEP: Set the DC Transfer switch to Position 1
.....**C**.....

STANDARD: Place output selector switch in the "1" position

CUE: **Handswitch has been placed in Position "1"**

SAT UNSAT

4. PERFORMANCE STEP: Close DC output Breaker D205
.....**C**.....

STANDARD: D205 placed in ON position

COMMENT: E-7 is posted in LVSR 2 if confusion exists at this step

CUE: **Breaker D205 has been placed in ON position**

SAT UNSAT

5. PERFORMANCE STEP: Open DC Output Breaker D203
.....**C**.....

STANDARD: D203 placed in OFF/TRIPPED position

CUE: **Breaker D203 has been placed in OFF/TRIPPED**

SAT UNSAT

6. PERFORMANCE STEP: Verify stable voltage on battery charger DBC 2PN

STANDARD: Voltmeter P2-225 on battery charger DBC2PN reads between 130V and 140V

CUE: **Voltage reads 132V and stable**

SAT UNSAT

7. PERFORMANCE STEP: Verify the status of the AC LOW VOLTS and DC LOW VOLTS lights on battery charger DBC 2PN

STANDARD: Observe the status of AC LOW VOLTS and DC LOW VOLTS lights are OFF

CUE: **AC LOW VOLTS light is OFF**
DC LOW VOLTS light is OFF

SAT UNSAT

8. PERFORMANCE STEP: Verify DCMCC2 GROUND DETECTOR reading is with limits

STANDARD: Verify DCMCC2 GROUND DETECTOR is reading is between 0.4 and 0.8 mA

CUE: **The DCMCC2 GROUND DETECTOR reads 0.5 mA and stable**

(If asked) No fault exists on battery charger DBC-2PN

(If asked) Battery charger DBC-2P will NOT be isolated for maintenance

SAT UNSAT

TERMINATING CUES: This JPM is complete. (Terminated by the examinee)

END TIME

Verification of Completion**Job Performance Measure No.** _____**Examinee's Name:** _____**Examiner's Name:** _____**Date Performed:** _____**Facility Evaluator:** _____**Number of Attempts:** _____**Time to Complete:** _____**Question Documentation:****Question:** _____

_____**Response:** _____

_____**Result:** Satisfactory/Unsatisfactory**Examiner's signature and date:** _____

IN-PLANT JPM

NP-3

REACTOR OPERATOR

SRO - I

SRO - U

Facility: Davis-Besse **Task No:** 061-020-04-0100**Task Title:** Reset the #2 AFPT Overspeed Mechanism and Trip Throttle**K/A Reference:** (061) A2.04 **Job Performance Measure No:** JPM 075**Examinee:** _____**NRC Examiner:** _____ **Date:** _____**Method of testing:**Simulated Performance X Actual Performance Classroom Simulator Plant X ***Read to the examinee:***

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

The plant conditions are specified in the Initial Conditions and Initiating Cues.

Task Standard:

Reset the #2 SFPT Overspeed Mechanism and Trip Throttle

Required Materials:

DB-OP-06233, Auxiliary Feedwater System, Rev. 30, Section 5.12 and 5.10

General References:**Initiating Cue:**

The plant conditions are specified in the Initial Conditions and Initiating Cues

Time Critical Task: No**Validation Time:** minutes

EXAMINER COPY**Train 2****INITIAL CONDITIONS:**

ACB 34563 is out of service for maintenance.

A Loss of Offsite Power has occurred due to the switchyard taking a lightning strike directly on ACB 34562.

Auxiliary Feedwater Train 2 has initiated and subsequently tripped due to overspeed.

INITIATING CUES:

The Shift Manager directs you to reset the overspeed mechanism and trip throttle valve for No. 2 AFPT in accordance with section 5.12 of DB-OP-06233.

(Hand copy of DB-OP-06233 Section 5.12 to examinee.)

CANDIDATE COPY**Train 2****INITIAL CONDITIONS:**

- ACB 34563 is out of service for maintenance.
- A Loss of Offsite Power has occurred due to the switchyard taking a lightning strike directly on ACB 34562.
- Auxiliary Feedwater Train 2 has initiated and subsequently tripped due to overspeed.

INITIATING CUES:

The Shift Manager directs you to reset the Overspeed Mechanism and Trip Throttle Valve for No. 2 AFPT in accordance with section 5.12 of DB-OP-06233.

PERFORMANCE INFORMATION

NOTE: Critical steps denoted with a "C". Failure to meet any one of these standards for this item constitutes failure. Sequence is NOT assumed unless denoted in the "Comments".

START TIME: _____

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1. PERFORMANCE STEP: Local inspection of #2 Auxiliary Feedwater Pump Turbine by local operator.

STANDARD: Look over the turbine and pump checking for apparent damage.
Check governor and linkage for apparent damage.

CUE: **NO DAMAGE is readily apparent to any component**

SAT UNSAT

2. PERFORMANCE STEP: Pull connecting rod, using the handle, past the
 C "reset" position while pushing the tappet down.

STANDARD: Push down on the tappet assembly then pull the connecting rod past the "RESET" position.

CUE: **The trip tappet is depressed. The connecting rod has been pulled past the RESET position and RELEASED.**
(If asked) The pointer indicates to the left of RESET.

SAT UNSAT

3. PERFORMANCE STEP: Release the connecting rod.

STANDARD: Release the connecting rod.

CUE: **NONE**

SAT UNSAT

4. PERFORMANCE STEP: Unseal ICS 38D, Auxiliary Feedwater Pump Turbine.
 C Trip Throttle

STANDARD: Unseal ICS 38D

CUE: **ICS 38D is unsealed.**

SAT UNSAT

5. PERFORMANCE STEP: Turn ICS 38D, Auxiliary Feedwater Pump Turbine Trip Throttle, clockwise until latch-up lever contacts stop on yoke trip hook and handwheel will turn no further.
C

STANDARD: Clockwise rotation on ICS 38D watching yoke trip hook move down to latch-up lever. Handwheel motion stops.

CUE: **Latch-up lever and yoke are in contact with one another with no further movement of ICS 38D.**

SAT UNSAT

6. PERFORMANCE STEP: Push on Trip Hook until there is no gap.
C

STANDARD: Verify no gap exists on Trip Hook Assembly.

CUE: **No gap exists.**

SAT UNSAT

7. PERFORMANCE STEP: Verify Latch-up Lever, and Trip Hook are completely engaged.

STANDARD: Verify no gaps.

CUE: **NO gap exists.**

SAT UNSAT

8. PERFORMANCE STEP Verify the reset arrow on the RESET/TRIPPED indicator aligns with the pointer on the connecting rod.
C

STANDARD: Check RESET arrow aligned with pointer on connecting rod.

CUE: **The pointer is aligned to the RESET arrow.**

SAT UNSAT

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9. PERFORMANCE STEP: IF Auxiliary Feedwater Pump Turbine 2 is being reset after an overspeed trip, THEN inform Control Room the trip throttle is reset, AND standing by to open ICS 38D.

STANDARD: Contact Control Room via previous communications established.

CUE: **Control Room directs you to OPEN ICS 38D.**

SAT UNSAT

10. PERFORMANCE STEP: Open ICS 38D, Auxiliary Feedwater Pump Turbine Trip Throttle Valve.
 C

STANDARD: Turn handwheel counterclockwise until completely OPEN.

CUE: **ICS 38D has been rotated counterclockwise and will move no further**

SAT UNSAT

11. PERFORMANCE STEP: Close ICS 38D, Auxiliary Feedwater Pump Turbine 2 Trip Throttle Valve, one-quarter turn.

STANDARD: Rotate handwheel one-quarter turn in the clockwise direction.

CUE: **ICS 38D has been rotated one-quarter turn clockwise.**

SAT UNSAT

12. PERFORMANCE STEP: Seal ICS 38D, Auxiliary Feedwater Pump Turbine 2 Trip Throttle Valve.

STANDARD: Proper use of sealing equipment.

CUE: **The trip throttle valve is sealed.**

SAT UNSAT

13. PERFORMANCE STEP: Have ICS 38D, Auxiliary Feedwater Pump Turbine 2 Trip Throttle Valve, independently verified OPEN.

STANDARD: Locate a second qualified operator to accomplish this step.

CUE: **ICS 38D has been independently verified OPEN.**

SAT UNSAT

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14. PERFORMANCE STEP: Verify Computer points S017 and Z002 are NORM and annunciators 10-2-H and 10-4-H are extinguished.

STANDARD: Contact Control Room via previous communications to verify computer points and Control Room annunciator.

CUE: **Control Room reports computer points S017 and Z002 are NORM and Annunciators are out.**

SAT	UNSAT
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15. PERFORMANCE STEP: If Auxiliary Feedwater Pump Turbine 2 has been reset following an overspeed trip, then GO TO section 5.10.

STANDARD: Route to section 5.10.

CUE: **(Hand individual section 5.10.)**

SAT	UNSAT
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16. PERFORMANCE STEP: Close MS 2306
C

STANDARD: Clockwise rotation; stem going in.

CUE: **Handwheel has been rotated clockwise; the stem is DOWN.**

SAT	UNSAT
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17. PERFORMANCE STEP: Close MS 744A
C

STANDARD: Clockwise rotation; handwheel and stem going in.

CUE: **Handwheel has been rotated clockwise; the stem is DOWN.**

SAT	UNSAT
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18. PERFORMANCE STEP: Close MS 31
C

STANDARD: Clockwise rotation; stem going in.

CUE: **Handwheel has been rotated clockwise; the stem is DOWN.**

SAT	UNSAT
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19. PERFORMANCE STEP: Verify governor oil level and governor gear box oil level are acceptable.
C

STANDARD: Verify oil level within "BLACK" area identified on sight glass and in the bulls eye.

COMMENT: This step through Step 23 may be performed concurrently or out of sequence.

CUE: **(For respective oil level) OIL LEVEL IN BLACK AREA.**

SAT UNSAT

20. PERFORMANCE STEP: Verify oil levels in turbine and pump inboard and outboard bearings are acceptable.
C

STANDARD: Verify oil levels within "BLACK" areas identified on sight glasses.

CUE: **(For respective oil level) OIL LEVEL IN BLACK AREA.**

SAT UNSAT

21. PERFORMANCE STEP: Check all Auxiliary Feedwater Pump Turbine and Auxiliary Feedwater Pump Bearings AND Seals for leakage.

STANDARD: Visual check of seals and bearings for leakage.

CUE: **No leakage apparent in seals or bearings.**

SAT UNSAT

22. PERFORMANCE STEP: Verify Mechanical seals and bearings are cool to touch.
C

STANDARD: Using back of the hand verify the seals and bearings are cool to touch.

CUE: **Seals and Bearings are cool to touch.**

SAT UNSAT

23. PERFORMANCE STEP: Record parameters

STANDARD: Record parameters. Can be performed in any order.

CUE:

PI 2558:	42 psig
PI 507:	25 psig
PI 2660:	1000 psig
PI 310:	950 psig
PI 2563:	995 psig
SI 816A:	3600 RPM
PI 10576:	10 psig

SAT	UNSAT
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24. PERFORMANCE STEP: Check vibration alarm panel.

STANDARD: Check panel for any abnormalities.

CUE: **NO alarms present.**

SAT	UNSAT
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25. PERFORMANCE STEP: Notify Control Room of completion

STANDARD: Use communication means to contact Control Room.

CUE: **Control Room acknowledges completion.**

SAT	UNSAT
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TERMINATING CUES This JPM is complete. (Terminated by the evaluator)

END TIME

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Verification of Completion**Job Performance Measure No.** _____**Examinee's Name:** _____**Examiner's Name:** _____**Date Performed:** _____**Facility Evaluator:** _____**Number of Attempts:** _____**Time to Complete:** _____**Question Documentation:****Question:** _____

_____**Response:** _____

_____**Result:** Satisfactory/Unsatisfactory**Examiner's signature and date:** _____