

# **Plant JPM**

## **i**

Examinee: \_\_\_\_\_ Date: \_\_\_\_\_

Examiner: \_\_\_\_\_

Facility: Davis-Besse JPM No: OPS-JPM-223

Task Title: Perform in progress WGDT 3 release

Task No: 071-005-01-0402 System: 071 Chem and Volume Control System

K/A Reference: 071 A1.08 / 2.7 Safety Function: 9 Radioactive Release

Time Critical Task: No Alternate Path: No

Validation Time: 22 minutes

**Method of testing / Location:**

Simulated Performance X Actual Performance \_\_\_\_\_

Classroom \_\_\_\_\_ Simulator \_\_\_\_\_ Plant X

**Task Standard:**

Stop the WGDT 3 release when 50-2-I, WST GAS SYS RAD MNTR FLOW is received, and sample flow cannot be adjusted.

**Required Materials:**

DB-OP-03012, Radioactive Gaseous Batch Release in progress  
DB-OP-03012, Radioactive Gaseous Batch Release in progress, a copy for the evaluator also.

**General References:**

None

**Notes:**

- The stand-by candidate can be allowed to review the procedure and prints prior to JPM to allow the JPM to start ASAP.
- JPM is performed in the Aux Building

**Initial Conditions:**

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

**Initiating Cue:**

The Initiating Cues are specified in the Examiner/Student Copy Performance Measure pages.

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**EXAMINER COPY**

**INITIAL CONDITIONS:**

The Zone 3 operator has just started a Radioactive Gaseous Batch Release of WGDT 3.

DB-OP-03012, Radioactive Gaseous Batch Release, is complete up to step 4.3.21.

FIC1821 is being used for the release and is set to 45 scfm.

Both RE1822A and RE1822B are operable and monitoring the release.

All release paperwork has been reviewed and is in order.

**INITIATING CUES:**

The Shift Manager (SM) directs you to complete the release starting at Step 4.3.22.

**(Hand copy of the following to the examinee:**

**DB-OP-03012 "Radioactive Gaseous Batch Release" signed off through step 4.3.21,  
Attachment 1 "Radioactive Gaseous Batch Release Permit" signed off through step 6  
(release start) and step 9 (Waste Gas Decay Tank release rate) to examinee.)**

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**CANDIDATE COPY**

**INITIAL CONDITIONS:**

The Zone 3 operator has just started a Radioactive Gaseous Batch Release of WGDT 3.

DB-OP-03012, Radioactive Gaseous Batch Release, is complete up to step 4.3.21.

FIC1821 is being used for the release and is set to 45 scfm.

Both RE1822A and RE1822B are operable and monitoring the release.

All release paperwork has been reviewed and is in order.

**INITIATING CUES:**

The Shift Manager (SM) directs you to complete the release starting at Step 4.3.22.

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**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".

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|-------------------|
| START TIME: _____ |
|-------------------|

1. PERFORMANCE STEP: Review the steps performed throughout the release. (Step 4.3.22)

STANDARD: Review steps 4.3.23 through 4.3.27

Turnover Cues if asked:

4.3.15: WG1819 Red Light ON, Green Light OFF

4.3.16: WG1820 Red Light ON, Green Light OFF

4.3.19 c.: WG1840 Red Light ON, Green Light OFF

CUE: ROLE PLAY as Zone 3 operator to answer examinee's turnover questions. WHEN turnover has been completed, THEN provide the following cue:

**Annunciator alarm 50-2-I WST GAS SYS RAD MNTR FLOW has just been received.**

NOTE: May also refer to DB-OP-02050, 50-2-I WST GAS RAD MNTR FLOW LO (Same initial actions)

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SAT UNSAT

2. PERFORMANCE STEP: Raise RE flow by throttling closed WG130 WASTE GAS TO STATION VENT CONTROL VALVE OUTLET ISOLATION. (Step 4.3.26 a.)

STANDARD: WG130 handwheel rotated clockwise.

COMMENT: Radiation Element low flow alarm WILL NOT clear even with WG130 fully closed.

CUE: (If asked prior to operating WG130) **FYIS1822 indicates zero.**

**WG130 handwheel has been rotated clockwise.**

(If asked after operating WG130) **FYIS1822 indicates zero.**

(When checked at panel) **Annunciator 50-2-I is still in alarm.**

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SAT UNSAT



# **Plant JPM**

## **j**

Examinee: \_\_\_\_\_ Date: \_\_\_\_\_

Examiner: \_\_\_\_\_

Facility: Davis-Besse JPM No: OPS-JPM-075

Task Title: Reset AFPT Overspeed Trip Mechanism

Task No: 061-020-04-0100 System: 061 Aux Feedwater System

K/A Reference: 061K4.07 / 3.7 Safety Function: 4S Heat Removal-Secondary

Time Critical Task: No Alternate Path: No

Validation Time: 15 minutes

**Method of testing / Location:**

Simulated Performance X Actual Performance \_\_\_\_\_

Classroom \_\_\_\_\_ Simulator \_\_\_\_\_ Plant X

**Task Standard:**

Reset the AFPT Overspeed Trip Mechanism

**Required Materials:**

DB-OP-06233 R46, Auxiliary Feedwater System R46, Section 5.12  
Picture of Trip Tappet

**General References:**

DB-OP-02010 Annunciator 10-2-H, AFPT 2 OVRSPD TRIP

**Notes:**

Will require Plant Security support to guard hatch  
Protected Train equipment (Protected Train 1 week)  
Steep stairs to AFP Rooms

**Initial Conditions:**

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

**Initiating Cue:**

The Initiating Cues are specified in the Examiner/Student Copy Performance Measure pages.

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**EXAMINER COPY**

**INITIAL CONDITIONS:**

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

Auxiliary Feedwater Pump Turbine (AFPT) 2 has initiated and subsequently tripped due to overspeed.

HIS521A, AFPT 2 GOVERNOR CONTROL, has been placed in the LOWER position. The Governor Green Low Speed Stop indicating light is LIT.

**INITIATING CUES:**

The Shift Manager directs you to reset AFPT 2 Overspeed Trip Mechanism and Trip Throttle Valve in accordance with section 5.12 of DB-OP-06233.

**(Hand a copy of DB-OP-06233 section 5.12 to the examinee)**

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**CANDIDATE COPY**

**INITIAL CONDITIONS:**

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

Auxiliary Feedwater Pump Turbine (AFPT) 2 has initiated and subsequently tripped due to overspeed.

HIS521A, AFPT 2 GOVERNOR CONTROL, has been placed in the LOWER position. The Governor Green Low Speed Stop indicating light is LIT.

**INITIATING CUES:**

The Shift Manager directs you to reset AFPT 2 Overspeed Trip Mechanism and Trip Throttle Valve 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".

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|-------------------|
| START TIME: _____ |
|-------------------|

|    |  |                  |
|----|--|------------------|
| 1. | <b>PERFORMANCE STEP:</b> Local inspection of #2 Auxiliary Feedwater Pump Turbine by local operator.  | (Step 5.12.1)    |
|    | <b>STANDARD:</b> Look over the turbine and pump checking for apparent damage. Check governor and linkage for apparent damage.  |                  |
|    | <b>CUE:</b> <b>NO DAMAGE is readily apparent to any component, AFPT 2 is intact.</b>   |                  |
|    |  | SAT    UNSAT     |
| 2. | <b>PERFORMANCE STEP:</b> Pull connecting rod, using the handle, past the <u><b>C</b></u> "reset" position while pushing the tappet down.   | (Step 5.12.3 a.) |
|    | <b>STANDARD:</b> Push down on the tappet assembly then pull the connecting rod past the "RESET" position.  |                  |
|    | <b>CUE:</b> <b>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.</b> |                  |
|    |  | SAT    UNSAT     |
| 3. | <b>PERFORMANCE STEP:</b> Release the connecting rod. <u><b>C</b></u>   | (Step 5.12.3 b.) |
|    | <b>STANDARD:</b> Release the connecting rod.   |                  |
|    | <b>CUE:</b> <b>NONE</b>  |                  |
|    |  | SAT    UNSAT     |
| 4. | <b>PERFORMANCE STEP:</b> Unseal ICS 38D, Auxiliary Feedwater Pump Turbine Trip Throttle. <u><b>C</b></u>   | (Step 5.12.3 c.) |
|    | <b>STANDARD:</b> Unseal ICS 38D  |                  |
|    | <b>CUE:</b> <b>ICS 38D is unsealed.</b>  |                  |
|    |  | SAT    UNSAT     |

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5. C 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. (Step 5.12.3 d.)

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.**

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SAT UNSAT

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6. C PERFORMANCE STEP: Push on Trip Hook until there is no gap. (Step 5.12.3 e.)

STANDARD: Verify no gap exists on Trip Hook Assembly.

CUE: **No gap exists.**

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SAT UNSAT

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7. PERFORMANCE STEP: Verify Latch-up Lever, and Trip Hook are completely engaged. (Step 5.12.3 f.)

STANDARD: Verify no gaps.

CUE: **NO gap exists.**

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SAT UNSAT

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8. PERFORMANCE STEP: Verify the reset arrow on the RESET/TRIPPED indicator aligns with the pointer on the connecting rod. (Step 5.12.3 g.)

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

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

**Hand a picture of the Trip Tappet to the candidate after they have identified the location of it.**

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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. (Step 5.12.3 h.)

STANDARD: Contact Control Room via previous communications established and inform them the trip throttle is reset AND standing by to open ICS 38D.

CUE: **The CTRM directs you to Open ICS38D, AFPT 1-2 TRIP THROTTLE VALVE**

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SAT UNSAT

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10. PERFORMANCE STEP: C Open ICS 38D, Auxiliary Feedwater Pump Turbine Trip Throttle Valve. (Step 5.12.3 i.)

STANDARD: Turn handwheel counterclockwise until completely OPEN.

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

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SAT UNSAT

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11. PERFORMANCE STEP: C Close ICS 38D, Auxiliary Feedwater Pump Turbine 2 Trip Throttle Valve, one-quarter turn. (Step 5.12.3 j.)

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

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

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SAT UNSAT

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12. PERFORMANCE STEP: Seal ICS 38D, Auxiliary Feedwater Pump Turbine 2 Trip Throttle Valve. (Step 5.12.3 k.)

STANDARD: Proper use of sealing equipment.

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

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SAT UNSAT

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

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END TIME

# **Plant JPM k**

**Examinee:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Examiner:** \_\_\_\_\_

**Facility:** Davis-Besse

**JPM No:** OPS-JPM-027

**Task Title:** Use Circ Water to Supply Service Water Primary Loads

**Task No:** 076-004-04-0100, 076-012-04-0400

**System:** 075 Circulating Water System

**K/A Reference:** 076 K1.14 / 2.7

**Safety Function:** 8 Plant Service Systems

**Time Critical Task:** No

**Alternate Path:** No

**Validation Time:** 25 minutes

**Method of testing / Location:**

Simulated Performance X                      Actual Performance \_\_\_\_\_

Classroom \_\_\_\_\_                      Simulator \_\_\_\_\_                      Plant X

**Task Standard:**

Line up Circulating Water to supply Service Water Loop 2 primary loads

**Required Materials:**

Attachment 9 of DB-OP-02511 R22

Obtain Keyring to access Intake Structure for examiner

**General References:**

None

**Notes:**

Check door status, may need security support

**Initial Conditions:**

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

**Initiating Cue:**

The Initiating Cues are specified in the Examiner/Student Copy Performance Measure pages.

**EXAMINER COPY**

**INITIAL CONDITIONS:**

The plant is in Mode 3

A loss of all service water is in progress

**INITIATING CUES:**

The Unit Supervisor directs you to line up Circulating Water to supply Service Water Loop 2 Primary Loads, using Attachment 9 of DB-OP-02511, Loss of Service Water Pumps/System

**(Provide the examinee a copy of Attachment 9 of DB-OP-02511)**

**CANDIDATE COPY**

**INITIAL CONDITIONS:**

The plant is in Mode 3

A loss of all service water is in progress

**INITIATING CUES:**

The Unit Supervisor directs you to line up Circulating Water to supply Service Water Loop 2 Primary Loads, using Attachment 9 of DB-OP-02511, Loss of Service Water Pumps/System

**PERFORMANCE INFORMATION**

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: Obtain a key for the intake structure.

STANDARD: Obtain a keyring from the Work Support Center key locker

COMMENT: ***Trainee may use the card reader to enter the service water tunnel from the Turbine Building instead of obtaining the key for the intake structure/water treatment entrance.***

***Keys are obtained from the key locker located near the Field Supervisors office.***

***Zone operators also have keys.***

CUE: **If required, have candidate describe how keys are obtained then provide key ring to candidate.**

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2. PERFORMANCE STEP: Check CT 2955, TPCW HX SUPPLY FROM CIRC WTR, is OPEN

ATT 9  
Step 1

STANDARD: Check valve OPEN by pointer, local indicating light or requesting indicating light from the Control Room

NOTE: CT2955 is expected to be OPEN in this plant condition.

CUE: **- (If used) CT 2955 local position is pointing to OPEN
- (If used) NV 2955 Red light is LIT. (Local Switch)
- (If Control Room is called) CT 2955 indicates open. HIS 2955 Red light is LIT**

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3. PERFORMANCE STEP: Verify CT 56, CIRCULATING WATER SUPPLY TO TPCW HEAT EXCHANGER STOP VALVE, is OPEN ATT 9 Step 2

STANDARD: Check valve OPEN by local position indicator  
May also rotate valve in the closed position then reopen

NOTE: CT56 is normally open, step becomes critical if they close it

CUE: **CT 56 valve indicator is pointing to "O"**

SAT UNSAT

4. PERFORMANCE STEP: Verify SW 51, TPCW HEAT EXCHANGER 1 INLET ISOLATION, is Closed. ATT 9 Step 3

**C**

STANDARD: Manually close SW 51

CUE: **If asked, the CSRO directs you to isolate SW to all 3 HXs.**

**SW 51 handwheel has been rotated clockwise and the valve position indicator moves from vertical to horizontal**

SAT UNSAT

5. PERFORMANCE STEP: Verify SW 52, TPCW HEAT EXCHANGER 2 INLET ISOLATION, is Closed. ATT 9 Step 3

**C**

STANDARD: Manually close SW 52

CUE: **SW 52 handwheel has been rotated clockwise and the valve position indicator moves from vertical to horizontal**

SAT UNSAT

6. PERFORMANCE STEP: Verify SW 53, TPCW HEAT EXCHANGER 3 INLET ISOLATION, is Closed. ATT 9 Step 3

**C**

STANDARD: Manually close SW 53

CUE: **SW 53 handwheel has been rotated clockwise and the valve position indicator moves from vertical to horizontal**

SAT UNSAT

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7. PERFORMANCE STEP: Open Breaker BF 1277, SERVICE WATER  
HEADER 2 TO TPCW HEAT EXCHANGERS  
SW 1395

ATT 9  
Step 4. a.

C

STANDARD: Move breaker handle down to Open BF 1277.

CUE: **Breaker handle for SW1395 is down, indicates OFF.**

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8. PERFORMANCE STEP: Open SW 1395, TPCW HEAT EXCHANGER  
INLET HEADER ISOLATION

SAT UNSAT

ATT 9  
Step 4. b.

C

STANDARD: Engage clutch on SW 1395  
Turn handwheel counterclockwise

COMMENT: Indicating lights off because breaker has just been  
opened

CUE: 

- **SW 1395 handwheel clutch has been DEPRESSED**
- **The handwheel has been turned counterclockwise**
- **The position indicator on SW 1395 is pointing up**

SAT UNSAT

TERMINATING  
CUES

This JPM is complete. (Terminated by the evaluator)

END TIME