

FINAL-AS ADMINISTERED

**SYSTEMS JPMs**

**DAVIS BESSE INITIAL EXAM  
(OCTOBER 2-6, 2000)**

**FIVE JPMs  
SROUs ONLY**

DAVIS-BESSE NUCLEAR POWER STATION  
JOB PERFORMANCE MEASURE WORKSHEET

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**JPM NO.:** 4C

Rev. 00

Page 19 of 28

**TASK NO.:** 000-058-05-0100

**TASK DESCRIPTION:** Establishing Long Term Boron Dilution Using LPI Train 2

**K/A REFERENCE:** 006-K6.03 3.6/3.9, 006-A1.11 3.1/3.4  
006-A2.05 3.4/3.5

**APPLICABLE METHOD OF TESTING:** Actual performance  
Simulator  
Alternate Path

**TIME FOR COMPLETION:** 10 minutes

**APPLICABILITY:** [X] RO [X] SRO

**TASK STANDARDS:**

1. Align HPI Train 1 to supplement core cooling with LPI Train 1.
2. Align LPI Train 2 to take a suction off of the DH Drop line and discharge to the RCS.
3. Establish long term boron dilution with LPI Train 2.
4. Align LPI Train 1 to inject through both LPI injection lines.

**REQUIRED MATERIALS:**

DB-OP-02000, RPS, SFAS, SFRCS Trip and SG Tube Rupture, Revision 5, C-1

**GENERAL REFERENCES:**

DB-OP-02000, RPS, SFAS, SFRCS Trip and SG Tube Rupture, Revision 5, C-1

**INITIAL CONDITIONS:**

A large break LOCA has occurred.  
HPI Pump 2 has failed to start.  
Both MU pumps and HPI Pump 1 have been stopped per procedure.  
Both LPI pumps have been transferred to the Emergency Sump.

**INITIATING CUES:**

You have been directed to establish long term boron dilution according to Attachment 12 of DB-OP-02000, RPS, SFAS, SFRCS Trip and SG Tube Rupture, using LPI Train 2.

Step D on Page 1 of Attachment 12 has been completed.

**INITIAL CONDITIONS:**

A large break LOCA has occurred.

HPI Pump 2 has failed to start.

Both MU pumps and HPI Pump 1 have been stopped per procedure.

Both LPI pumps have been transferred to the Emergency Sump.

**INITIATING CUES:**

You have been directed to establish long term boron dilution according to Attachment 12 of DB-OP-02000, RPS, SFAS, SFRCS Trip and SG Tube Rupture, using LPI Train 2.

Step D on Page 1 of Attachment 12 has 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: _____
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1. PERFORMANCE STEP: Locate the correct step.

STANDARD: Identifies Step E on Page 1 of Attachment 12 is the correct start point.

CUE: None.

\_\_\_\_\_  
SAT UNSAT

2. PERFORMANCE STEP: Return control power to DH 11 and DH 12.  
.....C.....

STANDARD: Depress the ON pushbutton on HIS DH11A and HIS DH12A.

COMMENT: DH 11 and DH 12 must be open to complete the task.

CUE: None.

\_\_\_\_\_  
SAT UNSAT

3. PERFORMANCE STEP: Verify open DH 11, Normal Suction Isolation.  
.....C.....

STANDARD: Depress the OPEN pushbutton on HIS DH11.

CUE: None.

\_\_\_\_\_  
SAT UNSAT

4. PERFORMANCE STEP: Verify open DH 12, Normal Suction Isolation.  
.....C.....

STANDARD: Depress the OPEN pushbutton on HIS DH12.

COMMENT: Examinee may turn off control power to DH 11 and DH 12 which not required by procedure.

CUE: None.

\_\_\_\_\_  
SAT UNSAT

5. PERFORMANCE STEP: Route to Method 2 using LPI Train 2.

STANDARD: Route to Page 4 of Attachment 12.

CUE: **None.**

SAT UNSAT

6. PERFORMANCE STEP: Check that the suction of LPI and CTMT Spray has been transferred to the Emergency Sump.

STANDARD: Observe the RED lights are lit on HIS DH9B and HIS DH9A.  
Observe the GREEN lights are lit on HIS DH7B and HIS DH7A.

CUE: **None.**

SAT UNSAT

7. PERFORMANCE STEP: Check that both LPI trains are cooling the core.

STANDARD: Observe >1000 gpm flow on FYI DH2B and FYI DH2A.

CUE: **(If asked how long LPI has been in operation.) LPI has been operating for 90 minutes.**

SAT UNSAT

8. PERFORMANCE STEP: Verify Incores temperatures are < 333°F.

STANDARD: Rotate Incore temperature selector switches HS 4627 and HS 4628 to verify the Incore Temperature indicators, TI 4627 and TI 4628 are < 333°F.

CUE: **None.**

SAT UNSAT

9. PERFORMANCE STEP: Check that SCM does not exist.

STANDARD: Observe RCS pressure on one of the various wide range indicators and determine the SCM is < 20°F.

CUE: **None.**

SAT UNSAT

10. PERFORMANCE STEP: Route to Method 2 using LPI Train 2.

STANDARD: Route to Page 8 of Attachment 12.

CUE: **None.**

SAT UNSAT

11. PERFORMANCE STEP: Identify CCW Train 2 is > 95°F.

STANDARD: Identify that CCW Train 2 temperature is 105°F using TI 1490.

CUE: None.

SAT UNSAT

12. PERFORMANCE STEP: Verfiy open DH 64, DHR Cooler 1 Outlet to HPI Pump 1  
.....C..... Suction.

STANDARD: Depress the OPEN pushbutton on HIS DH64.

CUE: None.

SAT UNSAT

13. PERFORMANCE STEP: Verify closed HP 32, HPI Recirc to BWST.

STANDARD: Verify GREEN light is lit on HIS HP32.

CUE: None.

SAT UNSAT

14. PERFORMANCE STEP: Adjust LPI Train 1 flow to maintain < 4000 gpm.

STANDARD: Depress ON control power for DH 1B using HIS DH1B-2. Throttle  
DH 1B, using HIS DH1B, until LPI Train 1 flow is about  
3000 gpm on FYI DH2B.

COMMENT: Required by Specific Rule 2.

CUE: None.

SAT UNSAT

15. PERFORMANCE STEP: Start HPI Pump 1.

.....C.....

STANDARD: Turn the control switch HIS 1524 to START.

CUE: None.

SAT UNSAT

16. PERFORMANCE STEP: Verify open HP 2C and HP 2D, HP Injection 1 valves.

STANDARD: Verify RED lights are lit on HIS HP2C and HIS HP2D.

CUE: None.

SAT UNSAT

17. PERFORMANCE STEP: Verify flow is indicated on HPI Train 1.

STANDARD: Verify flow is indicated on FYI HP3C and FYI HP3D.

CUE: None.

SAT UNSAT

18. PERFORMANCE STEP: Verify closed DH 1A, DH Pump 2 Discharge to RCS  
.....C..... Isolation.

STANDARD: Depress ON control power for DH 1A using HIS DH1A-2. Depress and hold the CLOSE pushbutton HIS DH1A, until only the GREEN light is lit.

CUE: None.

SAT UNSAT

19. PERFORMANCE STEP: Verify core cooling is adequate.

STANDARD: Observe the Incore temperature indicators, TI 4627 and TI 4626, are constant.

CUE: Incore temperature indicators, TI 4627 and TI 4626, are constant and will be monitored by the Shift Manager.

SAT UNSAT

20. PERFORMANCE STEP: Stop LPI Pump 2.  
.....C.....

STANDARD: Depress the BLOCK pushbutton on HIS DH6A1 and turn the control switch HIS DH6A to STOP.

COMMENT: LPI Pump 2 must be stopped prior to repositioning DH 2734.

CUE: None.

SAT UNSAT

21. PERFORMANCE STEP: Verify closed DH 2734, DH Pump 2 LPI Suction valve.  
.....C.....

STANDARD: Depress the BLOCK pushbutton on HIS 2734A and depress the CLOSE pushbutton on HIS 2734.

CUE: None.

SAT UNSAT

22. PERFORMANCE STEP: Verify open DH 11 and DH 12, Normal Suction Isolation.

STANDARD: Observe the RED lights are lit on HIS DH11 and HIS DH12.

CUE: None.

SAT UNSAT

23. PERFORMANCE STEP: Verify open DH 1518, DH Pump 2 Suction from RCS.  
.....C.....

STANDARD: Depress the OPEN pushbutton on HIS 1518.

CUE: None.

SAT UNSAT

24. PERFORMANCE STEP: Start LPI Pump 2.  
.....C.....

STANDARD: Turn the control switch HIS DH6A to START.

CUE: None.

SAT UNSAT

25. PERFORMANCE STEP: Verify no indication of cavitation on LPI Pump 2.

STANDARD: Observe constant amperes and flow on LPI Train 2.

CUE: None.

SAT UNSAT

26. PERFORMANCE STEP: Adjust LPI Train 2 flow to 300 to 500 gpm.  
.....C.....

STANDARD: Depress ON control power for DH 1A using HIS DH1A-2. Throttle DH 1A, using HIS DH1A, attempting to establish an LPI Train 2 flow of about 300 to 500 gpm on FYI DH2A.

COMMENT: Restoration of control power will not be required if control power was not removed previously.

CUE: None.

SAT UNSAT



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27. PERFORMANCE STEP: Identify indications of cavitation on LPI Pump 2.  
.....C.....

STANDARD: Observe swinging amperes and flow on LPI Train 2.

CUE: **None.**

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SAT UNSAT

28. PERFORMANCE STEP: Stop LPI Pump 2.  
.....C.....

STANDARD: Turn the control switch HIS DH6A to STOP.

CUE: **None.**

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SAT UNSAT

29. PERFORMANCE STEP: Verify closed DH 1518, DH Pump 2 Suction from RCS.  
.....C.....

STANDARD: Depress the CLOSE pushbutton on HIS 1518.

CUE: **None.**

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SAT UNSAT

30. PERFORMANCE STEP: Route to Step 10.7.

STANDARD: Route to Step 10.7.

CUE: **None.**

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SAT UNSAT

31. PERFORMANCE STEP: Verify LPI Pump 2 is off.

STANDARD: Observe the GREEN light is LIT on control switch HIS DH6A.

CUE: **None.**

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SAT UNSAT

32. PERFORMANCE STEP: Verify closed DH 2734, DH Pump 2 LPI Suction valve.

STANDARD: Observe the GREEN light is LIT on HIS 2734.

CUE: **None.**

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SAT UNSAT

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33. PERFORMANCE STEP: Verify closed DH 1A, DH Pump 2 Discharge to RCS  
 .....C..... Isolation.

STANDARD: Depress ON control power for DH 1A using HIS DH1A-2. Depress and hold the CLOSE pushbutton HIS DH1A, until only the GREEN light is lit.

COMMENT: Restoration of control power will not be required if control power was not removed previously.

CUE: **None.**

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SAT UNSAT

34. PERFORMANCE STEP: Verify open DH 831, Decay Heat Cooler Disch Xover 1  
 .....C..... to 2.

STANDARD: Depress the OPEN pushbutton on HIS 831.

CUE: **None.**

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SAT UNSAT

35. PERFORMANCE STEP: Adjust LPI Train 1 flow to maintain < 4000 gpm on  
 .....C..... LPI Pump 1.

STANDARD: Depress ON control power for DH 1B using HIS DH1B-2. Throttle DH 1B, using HIS DH1B, until LPI Train 1 flow is about 1500 gpm on FYI DH2B.

COMMENT: HPI Pump 1 is still running and must be included in the total flow through LPI Pump 1. Required by Specific Rule 2.

Restoration of control power will not be required if control power was not removed previously.

CUE: **None.**

---

SAT UNSAT

36. PERFORMANCE STEP: Adjust LPI Train 2 flow to obtain about 1500 gpm.  
 .....C.....

STANDARD: Depress ON control power for DH 1A using HIS DH1A-2. Throttle DH 1A, using HIS DH1A, attempting to establish an LPI Train 2 flow of about 1500 gpm on FYI DH2A.

COMMENT: Restoration of control power will not be required if control power was not removed previously.

CUE: **None.**

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SAT UNSAT

TERMINATING CUES: This JPM is complete.

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END TIME

VERIFICATION OF COMPLETION

Operator \_\_\_\_\_ Evaluator \_\_\_\_\_

SSN \_\_\_\_\_ Date \_\_\_\_\_

License: [ ] RO [ ] SRO

Validated Completion Time: \_\_\_\_\_ minutes

Actual Completion Time: \_\_\_\_\_ minutes

Acceptable Progress Maintained: Yes No N/A

Result: [ ] SATISFACTORY [ ] UNSATISFACTORY

NOTE: An "Unsatisfactory" requires Comment and will require subsequent remedial training.

Comments/Feedback: \_\_\_\_\_  
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\_\_\_\_\_  
Evaluator's Signature / Date

DAVIS-BESSE NUCLEAR POWER STATION  
JOB PERFORMANCE MEASURE WORKSHEET

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JPM NO.: 94B

Rev. 04

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TASK NO.: 000-054-05-0100 , 040-012-04-0100

TASK DESCRIPTION: Perform Operator Actions for a High Steam Generator Level due to a SGTR

K/A REFERENCE: 040-013-01-0100, Block an SFRCS Signal

000-054-05-0100, Perform required operator actions for a SGTR

*Unique system for B&W plants - (SFRCS) KIA associated with this sys is both nuclear & non-nuclear instrumentation and also RPS inst. . KAs 015 & 016 & 012. AD.*

APPLICABLE METHOD OF TESTING: Actual performance Simulator

TIME FOR COMPLETION: 17 minutes

APPLICABILITY:  RO  SRO

TASK STANDARDS:

3. Isolate Steam Generator 1.
4. Bypass SFRCS Hi Level Trip on Steam Generator 1 per Attachment 6.

REQUIRED MATERIALS:

DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture, Revision 5, C-1

GENERAL REFERENCES:

DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture, Revision 5, C-1

INITIAL CONDITIONS:

The plant is in Mode 3, post trip, following a Steam Generator Tube Rupture on Steam Generator 1.

INITIATING CUES:

This Shift Supervisor directs you perform step 8.14.6 of DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture.

**INITIAL CONDITIONS:**

The plant is in Mode 3, post trip, following a Steam Generator Tube Rupture on Steam Generator 1.

**INITIATING CUES:**

This Shift Supervisor directs you perform Step 8.14.6 of DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture.

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: Identifies the correct procedure step.

STANDARD: Locate Step 8.14.6 of DB-OP-02000, as the correct step.

CUE: None.

\_\_\_\_\_  
SAT UNSAT

2. PERFORMANCE STEP: Continue cooldown of the RCS on the good Steam  
.....C..... Generator by blocking and opening ICS 11A.

STANDARD: Place PIC ICS11A in HAND, decrease the demand to zero on PIC ICS11A, depress the BLOCK pushbutton on HIS ICS11C and depress the AUTO pushbutton on HIS ICS11A.

COMMENT: Verify the examinee can control SG 2 pressure.

CUE: Another RO will continue the cooldown on the good Steam Generator.

\_\_\_\_\_  
SAT UNSAT

3. PERFORMANCE STEP: Verify MSIV 1, MS 101, is closed.

STANDARD: Verify the green light is lit on HIS 101.

CUE: None.

\_\_\_\_\_  
SAT UNSAT

4. PERFORMANCE STEP: Verify AVV 1, ICS11B, is closed.

STANDARD: Verify PIC ICS11B in HAND and decrease the demand to zero on PIC ICS11B, and the GREEN light is lit on pushbutton HIS ICS11B.

CUE: None.

\_\_\_\_\_  
SAT UNSAT

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5. PERFORMANCE STEP: Verify MS Line 1 to AFPT 1 Isolation valve, MS 106, is  
 .....C..... closed.

STANDARD: Depress the BLOCK pushbutton on HIS 106AB and depress the  
 CLOSE on pushbutton on HIS 106A.

CUE: **None.**

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SAT UNSAT

6. PERFORMANCE STEP: Verify MS Line 1 to AFPT 2 Isolation valve, MS 107A,  
 .....C..... is closed.

STANDARD: Depress the BLOCK pushbutton on HIS 107EB and depress the  
 CLOSE on pushbutton on HIS 107E.

CUE: **None.**

---

SAT UNSAT

7. PERFORMANCE STEP: Verify AFW to SG 1 Stop valve, AF 608, is closed.  
 .....C.....

STANDARD: Depress the ON pushbutton on HIS 608E, depress the CLOSE on  
 pushbutton on HIS 608A and depress OFF pushbutton on HIS 608E.

COMMENT: Depressing OFF on HIS 608E is NOT critical.

CUE: **None.**

---

SAT UNSAT

8. PERFORMANCE STEP: Verify SG 1 Main FW Stop valve, FW 612, is closed.

STANDARD: Depress the BLOCK pushbutton on HIS 612A and depress the CLOSE  
 on pushbutton on HIS 612.

CUE: **None.**

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SAT UNSAT

9. PERFORMANCE STEP: Verify AFP 1 Discharge to SG 1 Stop valve, AF 3870, is  
 closed.

STANDARD: Depress the BLOCK pushbutton on HIS 3870B and depress the  
 CLOSE on pushbutton on HIS 3870.

CUE: **None.**

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SAT UNSAT

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10. PERFORMANCE STEP: Verify AFP 1 Discharge to SG 2 Stop valve, AF 3869, is open.

STANDARD: Depress the BLOCK pushbutton on HIS 3869B and depress the OPEN on pushbutton on HIS 3869.

CUE: None.

---

SAT UNSAT

11. PERFORMANCE STEP: Route to Attachment 6, Overriding a SFRCS High Level Trip.

STANDARD: Identifies DB-OP-02000, Attachment 6, Section A, as the correct procedure section.

CUE: None.

---

SAT UNSAT

12. PERFORMANCE STEP: Obtain the bypass keys and door keys for all four SFRCS channels.

STANDARD: Keys obtained from Shift Supervisor.

COMMENT: If being performed on the simulator, allow the examinee to obtain the keys.

CUE: None.

---

SAT UNSAT

13. PERFORMANCE STEP: Open SFRCS Channel 1/3 door.

STANDARD: Open door.

COMMENT: If being performed on the simulator, allow the examinee to open the doors.

CUE: None.

---

SAT UNSAT

14. PERFORMANCE STEP: Bypass Logic Channel 1.  
.....C.....

STANDARD: Place key in KS-1 and turn to BYPASS.

CUE: None.

---

SAT UNSAT



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15. PERFORMANCE STEP: Bypass Logic Channel 1 (cont.).  
.....C.....

STANDARD: Put SB switch 071 (SP9B8) to BYP.

CUE: **None.**

---

SAT UNSAT

16. PERFORMANCE STEP: Bypass Logic Channel 3.  
.....C.....

STANDARD: Place key in KS-3 and turn to BYPASS.

CUE: **None.**

---

SAT UNSAT

17. PERFORMANCE STEP: Bypass Logic Channel 3 (cont.).  
.....C.....

STANDARD: Put SB switch 073 (SP9B9) to BYP.

CUE: **None.**

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SAT UNSAT

18. PERFORMANCE STEP: Close and lock SFRCS Channel 1/3.

STANDARD: Door closed and locked.

CUE: **None.**

---

SAT UNSAT

19. PERFORMANCE STEP: Open SFRCS Channel 2/4 door.

STANDARD: Open door.

COMMENT: If being performed on the simulator, allow the examinee to open the doors.

CUE: **None.**

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SAT UNSAT

20. PERFORMANCE STEP: Bypass Logic Channel 2.  
.....C.....

STANDARD: Place key in KS-2 and turn to BYPASS.

CUE: **None.**

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SAT UNSAT

---

21. PERFORMANCE STEP: Bypass Logic Channel 2 (cont.).  
.....C.....

STANDARD: Put SB switch 072 (SP9B6) to BYP.

CUE: **None.**

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SAT UNSAT

22. PERFORMANCE STEP: Bypass Logic Channel 4.  
.....C.....

STANDARD: Place key in KS-4 and turn to BYPASS.

CUE: **None.**

---

SAT UNSAT

23. PERFORMANCE STEP: Bypass Logic Channel 4 (cont.).  
.....C.....

STANDARD: Put SB switch 074 (SP9B7) to BYP.

CUE: **None.**

---

SAT UNSAT

24. PERFORMANCE STEP: Close and lock SFRCS Channel 2/4 door.

STANDARD: Door closed and locked.

CUE: **None.**

---

SAT UNSAT

25. PERFORMANCE STEP: Return keys to Shift Supervisor.

STANDARD: Keys returned to Shift Supervisor.

CUE: **None.**

---

SAT UNSAT

26. PERFORMANCE STEP: Route to DB-OP-06910, Trip Recovery, Step 4.3.10.

STANDARD: Identifies DB-OP-06910, Step 4.3.10 as the correct procedural step.

COMMENT: If asked, Condenser vacuum is available.

CUE: **None.**

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SAT UNSAT

27. PERFORMANCE STEP: Verify Main Steam Non-Return valve, MS 209, is open.

STANDARD: Depress OPEN on HIS 209.

CUE: None.

SAT UNSAT

28. PERFORMANCE STEP: Verify MSIV 2 Bypass valve, MS 100A, is open.

.....C.....

STANDARD: Depress OPEN on HIS 100-1.

CUE: Differential Pressure across the MSIV, MS 100, is less than 250 psi.

SAT UNSAT

29. PERFORMANCE STEP: Verify AVV 1, ICS11B, is in hand.

STANDARD: Verify PIC ICS11B in HAND.

CUE: None.

SAT UNSAT

30. PERFORMANCE STEP: Verify AVV 2, ICS11A, is in hand.

STANDARD: Verify PIC ICS11A in HAND.

CUE: None.

SAT UNSAT

31. PERFORMANCE STEP: Verify TBVs for Steam Line 1, ICS12B, is in hand and closed.

STANDARD: Depress HAND on PIC ICS12B and REDUCE demand to ZERO.

CUE: None.

SAT UNSAT

32. PERFORMANCE STEP: Verify TBVs for Steam Line 2, ICS12A, is in hand and closed.

STANDARD: Depress HAND on PIC ICS12B and REDUCE demand to ZERO.

CUE: None.

SAT UNSAT

33. PERFORMANCE STEP: Depress closed on MSIV 2, MS 100.

STANDARD: Depress CLOSE on HIS 100.

CUE: None.

SAT UNSAT

34. PERFORMANCE STEP: Reset SFRCS solenoids for MSIV 2, MS100.  
.....C.....

STANDARD: Depress REST on HS 100.

CUE: None.

SAT UNSAT

35. PERFORMANCE STEP: Verify MSIV 2, MS 100, is open.  
.....C.....

STANDARD: Depress OPEN on HIS 100.

CUE: (If asked) Differential Pressure across the MSIV, MS 100, is less than 250 psi.

SAT UNSAT

TERMINATING CUES: This JPM is complete.

END TIME

VERIFICATION OF COMPLETION

Operator \_\_\_\_\_ Evaluator \_\_\_\_\_

SSN \_\_\_\_\_ Date \_\_\_\_\_

License:  RO  SRO

Validated Completion Time: \_\_\_\_\_ minutes

Actual Completion Time: \_\_\_\_\_ minutes

Acceptable Progress Maintained: Yes No N/A

Result:  SATISFACTORY  UNSATISFACTORY

NOTE: An "Unsatisfactory" requires Comment and will require subsequent remedial training.

Comments/Feedback: \_\_\_\_\_  
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\_\_\_\_\_  
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\_\_\_\_\_

\_\_\_\_\_/\_\_\_\_\_  
Evaluator's Signature Date

DAVIS-BESSE NUCLEAR POWER STATION  
JOB PERFORMANCE MEASURE WORKSHEET

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**JPM NO.:** 2

Rev. 00

Page 1 of 9

**TASK NO.:** 000-068-05-0100, 334-017-05-0300

**TASK DESCRIPTION:** Serious Control Room Fire, Assistant Shift Supervisor  
Actions, Attachment 2

**K/A REFERENCE:** 062-A2.04 3.1/3.4, 064-A2.05 3.1/3.2  
064-A2.11 2.6/2.9, BW/A05-AA1.01 4.3/4.2

**APPLICABLE METHOD OF TESTING:** Simulate performance  
In-plant

**TIME FOR COMPLETION:** 25 minutes

**APPLICABILITY:** [ ] RO [X] SRO

**TASK STANDARDS:**

1. Cooling flow (CCW) to EDG 1 is established.
2. All required emergency control transfer switches are in LOCAL.
3. EDG 1 is protected.
4. Isolate B bus and remove bus control power.

**REQUIRED MATERIALS:**

DB-OP-02519, Serious Control Room Fire, Revision 4, C-3

**GENERAL REFERENCES:**

DB-OP-02519, Serious Control Room Fire, Revision 4, C-3

**INITIAL CONDITIONS:**

The Control Room has been evacuated due to a serious Control Room fire.

**INITIATING CUES:**

You have been directed to perform the Assistant Shift Supervisor actions in Attachment 2 of DB-OP-02519, Serious Control Room Fire.

You have obtained all the required serious Control Room fire equipment.

(Hand copy of DB-OP-02519 to examinee.)

**INITIAL CONDITIONS:**

The Control Room has been evacuated due to a Serious Control Room Fire.

**INITIATING CUES:**

You have been directed to perform the Assistant Shift Supervisor actions in Attachment 2 of DB-OP-02519, Serious Control Room Fire.

You have obtained all the required Serious Control Room Fire Equipment.

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: Verify the radio is NOT in silence mode.

STANDARD: Key radio to transmit.

CUE: Radio transmitter switch has been depressed and released.

\_\_\_\_\_  
SAT UNSAT

2. PERFORMANCE STEP: Establish CCW flow to EDG 1.

.....C.....

STANDARD: CC 1471 is OPENED.

CUE: HV 1471 has been rotated clockwise to CLOSE.

CC 1471 IA regulator drain petcock has been rotated counterclockwise to OPEN.

Position indicator on CC 1471 indicates OPEN.

\_\_\_\_\_  
SAT UNSAT

3. PERFORMANCE STEP: Isolate the EDG 1 Engine Control Panel from the

.....C..... Control Room fire.

STANDARD: On C3621, EDG 1 Engine Control Panel, disconnect switch, Emergency Control Transfer Switch DS-4A, in LOCAL.

CUE: Emergency Control Transfer Switch DS-4A has been placed in LOCAL.

\_\_\_\_\_  
SAT UNSAT



4. PERFORMANCE STEP: Isolate the EDG Local Control Panel from the Control  
.....C..... Room fire.

STANDARD: Place disconnect switches on C3615, DG 1 Local Control Panel,  
ISO SW DS-1B Appendix R in EMERGENCY, and ISO SW DS-1  
Appendix R for relay SAX/13, in LOCAL.

CUE: ISO SW DS-1B Appendix R switch has been placed in EMERGENCY.

ISO SW DS-1 Appendix R for relay SAX/13 has been placed in LOCAL.

SAT UNSAT

5. PERFORMANCE STEP: Isolate the EDG Local Control Panel from the Control  
.....C..... Room fire (cont.).

STANDARD: Open the nine TS-4 test disconnect switches on Panel C3615,  
DG 1 Local Control Panel.

CUE: All nine TS-4, test disconnect switches, have been placed in the  
OPEN position.

SAT UNSAT

6. PERFORMANCE STEP: Isolate the EDG Voltage Regulator cabinet from the  
.....C..... Control Room fire (cont.).

STANDARD: Disconnect switch ISO SW DS-3 Appendix R on Panel C3617, DG 1  
Voltage Regulator Cabinet, in LOCAL.

CUE: ISO SW DS-3 Appendix R switch has been placed in LOCAL.

SAT UNSAT

7. PERFORMANCE STEP: Force the EDG into the Isochronous Mode.  
.....C.....

STANDARD: Isochronous droop switch placed in isochronous.

CUE: Isochronous droop switch has been placed in ISOCHRONOUS.

SAT UNSAT

8. PERFORMANCE STEP: Disable the Voltage Regulator Droop mode.  
.....C.....

STANDARD: Voltage Regulator droop switch in OFF.

CUE: Voltage Regulator droop switch has been placed in OFF.

SAT UNSAT

9. PERFORMANCE STEP: Shutdown EDG 2.  
.....C.....

STANDARD: Push emergency shutdown on EDG 2 at C3622, DG 2 Engine Control Panel.

CUE: Emergency shutdown has been pushed.

EDG 2 is STOPPED.

SAT UNSAT

10. PERFORMANCE STEP: Place DG 1 Sync Selector in the DG BKR to C1 position.

STANDARD: Rotate the DG 1 Sync Selector to the DG BKR to C1 position.

CUE: The DG 1 Sync Selector switch has been rotated to the DG BKR to C1 position.

SAT UNSAT

11. PERFORMANCE STEP: Determine status of EDG 1.

STANDARD: Verify that EDG 1 is running unloaded.

COMMENT: The order of the cues is respective to the If-Then statements in the step.

CUE: EDG 1 Running volt meter indicates 124 VAC.

EDG 1 Kilwatt meter indicates 0 KWe.

EDG 1 is running and AC110, Bus C1 to Bus C2 Tie Brkr, is CLOSED.

SAT UNSAT

12. PERFORMANCE STEP: Notify the Shift Supervisor EDG 1 is running unloaded and route to step 1.0.d.4.

STANDARD: Contact the Shift Supervisor and route to step 1.0.d.4.

CUE: Shift Supervisor has been notified EDG 1 is running unloaded.

SAT UNSAT

13. PERFORMANCE STEP: Adjust EDG 1 voltage to 4300 VAC.  
.....C.....

STANDARD: Determine EDG 1 voltage and adjust EDG 1 voltage using DG 1 Voltage regulator switch.

CUE: EDG 1 voltage is 4220 VAC.

EDG 1 Voltage Regulator switch has been rotated to RAISE.

EDG 1 voltage is 4300 VAC.

EDG 1 Voltage Regulator switch has been released to neutral.

SAT UNSAT

14. PERFORMANCE STEP: Adjust EDG 1 frequency to 60 Hz.  
.....C.....

STANDARD: Determine EDG 1 frequency and adjust EDG 1 frequency using DG 1 Spd Cntrl switch.

CUE: EDG 1 Frequency is 60.7 Hz.

EDG 1 Speed Control switch has been rotated to LOWER.

EDG 1 Frequency is 60 Hz.

EDG 1 Speed Control switch has been released to neutral.

SAT UNSAT

15. PERFORMANCE STEP: Notify the Secondary RO and the SS that EDG 1 is protected.

STANDARD: Using the radio or Gai-Tronics, inform the Secondary RO and the SS that EDG 1 is protected.

CUE: The Secondary RO and SS have been notified EDG 1 is protected.

SAT UNSAT

---

16. PERFORMANCE STEP: At D1 Bus Cubicle 2, remove AACD1 close control power  
 .....C..... fuses AND trip AACD1 using the manual trip plunger at  
 the base of the breaker.

STANDARD: AACD1 checked open and close fuses pulled and lift the manual  
 trip plunger.

CUE: Breaker AACD1 green light lit, control fuses pulled.  
 The manual trip plunger for breater AACD1 has been lifted. (if  
 asked) Breaker position indicator points to open.

---

SAT UNSAT

17. PERFORMANCE STEP: Remove control power from B bus source breakers.  
 .....C.....

STANDARD: Knife switch in Cubicle 14 placed in mid position.

CUE: Knife switch has been placed in the MID position.

---

SAT UNSAT

18. PERFORMANCE STEP: Verify OPEN B bus source breakers.  
 .....C.....

STANDARD: Check OPEN the following B bus source breakers: HX01B,  
 HX02B, and HX11B.

CUE: Breaker HX01B has the Green light OFF; Red light OFF.  
 The manual trip plunger for breater HX01B has been lifted.  
 (if asked) Breaker position indicator points to open.

Breaker HX11B has the Green light OFF; Red light OFF.  
 The manual trip plunger for breater HX11B has been lifted.  
 (if asked) Breaker position indicator points to open.

Breaker HX02B has the Green light OFF; Red light OFF.  
 The manual trip plunger for breater HX02B has been lifted.  
 (if asked) Breaker position indicator points to open.

---

SAT UNSAT

---

19. PERFORMANCE STEP: Remove control power from B bus load breakers.  
.....C.....

STANDARD: Knife switch in B Bus Cubicle 1 placed in mid position.

CUE: Knife switch has been placed in the MID position.

---

SAT UNSAT

TERMINATING CUES: This JPM is complete.

---

END TIME

VERIFICATION OF COMPLETION

Operator \_\_\_\_\_ Evaluator \_\_\_\_\_

SSN \_\_\_\_\_ Date \_\_\_\_\_

License:     RO     SRO

Validated Completion Time: \_\_\_\_\_ minutes

Actual Completion Time: \_\_\_\_\_ minutes

Acceptable Progress Maintained:                  Yes                  No                  N/A

Result:     SATISFACTORY     UNSATISFACTORY

NOTE: An "Unsatisfactory" requires Comment and will require subsequent remedial training.

Comments/Feedback: \_\_\_\_\_

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\_\_\_\_\_/\_\_\_\_\_  
Evaluator's Signature                      Date

DAVIS-BESSE NUCLEAR POWER STATION  
JOB PERFORMANCE MEASURE WORKSHEET

---

JPM NO.: 1A

Rev. 00

Page 1 of 13

TASK NO.: 061-019-04-0100, 061-020-04-0100

TASK DESCRIPTION: Local Operation of the AFW Pump Turbine 1  
(Use when Train 2 is protected.)

K/A REFERENCE: 061-K5.01 3.6/3.9, 061-K6.01 2.5/2.8  
061-A2.03 3.1/3.4

APPLICABLE METHOD OF TESTING: Simulate Performance  
In-plant  
Alternate Path

TIME FOR COMPLETION: 20 minutes

APPLICABILITY:  RO  SRO

TASK STANDARDS:

AFW Train 1 manual speed control at the AFPT governor.

REQUIRED MATERIALS:

DB-OP-06233, Auxiliary Feedwater System, Revision 05

GENERAL REFERENCES:

DB-OP-06233, Auxiliary Feedwater System, Revision 05

INITIAL CONDITIONS:

A loss of D1P from 100% power has occurred.  
The reactor has tripped and SFRCS actuated on a loss of four (4) RCPs.  
A loss of AFPT 1 governor speed control and AF 6452, AFW 1 level control valve, failing open is a result of the loss of D1P and is causing an overcooling of the RCS.

INITIATING CUES:

You have been directed by the Shift Supervisor to locally control AFPT 1 speed by manual speed control at the AFPT 1 governor valve, in accordance with DB-OP-06233.

(Hand examinee the procedure.)

**INITIAL CONDITIONS:**

A loss of D1P from 100% power has occurred.

The reactor has tripped and SFRCS actuated on a loss of four (4) RCPS.

A loss of AFPT 1 governor speed control and AF 6452, AFW 1 level control valve, failing open is a result of the loss of D1P and is causing an overcooling of the RCS.

**INITIATING CUES:**

You have been directed by the Shift Supervisor to locally control AFPT 1 speed by manual speed control at the AFPT 1 governor valve, in accordance with 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 critical unless denoted in the "Comments".

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

1. PERFORMANCE STEP: Locate the correct procedure.

STANDARD: Identifies Section 5.1 of DB-OP-06233, Auxiliary Feedwater System, as the correct procedure section.

CUE: (if asked) ALL prerequisites have been performed.

\_\_\_\_\_  
SAT UNSAT

2. PERFORMANCE STEP: Attempt to unstick governor valve/linkage.

STANDARD: Applies a downward force to the governor valve linkage labeled L1.

CUE: Governor valve moves inward slightly and is NOT STUCK.

\_\_\_\_\_  
SAT UNSAT

3. PERFORMANCE STEP: Attempt manual speed control from the Control Room or the Auxiliary Shutdown Panel.

STANDARD: Contacts the Control Room to attempt speed control of AFPT 1.

CUE: Control Room operator informs you he has no speed control of AFPT 1.  
(if necessary) Shift Supervisor directs you to continue with the procedure.

\_\_\_\_\_  
SAT UNSAT

4. PERFORMANCE STEP: In AFPT 1 Room, establish communications with the Reactor Operator.

STANDARD: Establish communications with Reactor Operator via Gai-Tronics or radio.

CUE: You have established communications with a Reactor Operator. The Reactor Operator directs you to reduce AFPT 1 speed.

\_\_\_\_\_  
SAT UNSAT

---

5. PERFORMANCE STEP: Unscrew and remove the electrical connector on the  
.....C..... face of the governor.

STANDARD: Locates electrical connector and unscrews it.

COMMENT: This step must be performed prior to Step 6.

CUE: **The electrical connector is DISCONNECTED.**

---

SAT UNSAT

6. PERFORMANCE STEP: Turn the manual speed setting control knob as  
.....C..... appropriate to control AFPT speed/flow as directed by  
the Reactor Operator.

STANDARD: Locate the manual speed setting knob and adjust to reduce the  
AFPT speed (CCW direction).

COMMENT: AFPT 1 speed will not change regardless of the examinee's  
actions.

CUE: **AFPT 1 speed remains constant.**

**(if asked) AFPT speed is 3600 rpm.**

---

SAT UNSAT

7. PERFORMANCE STEP: Identify AFPT 1 speed control, using the governor  
valve, has failed and route to Section 5.3.

STANDARD: Locate the correct procedure section. Identifies Section 5.3  
of DB-OP-06233, Auxiliary Feedwater System, as correct  
procedure section.

CUE: **(If asked) Shift Supervisor directs you to gain control of AFPT 1  
speed.**

---

SAT UNSAT

8. PERFORMANCE STEP: Establish communication with Control Room.

STANDARD: Utilize the Gai-Tronics or radio to communicate with the  
Control Room.

CUE: **(If asked) You have established communications with the Control  
Room.**

---

SAT UNSAT

9. PERFORMANCE STEP: Unseal the trip throttle valve, ICS 38C.  
.....C.....

STANDARD: The trip throttle valve seal disconnected.

CUE: **The trip throttle valve seal is DISCONNECTED.**

SAT UNSAT

10. PERFORMANCE STEP: Close the trip throttle valve, ICS 38C.  
.....C.....

STANDARD: Valve handwheel rotated clockwise to CLOSE.

CUE **Valve handwheel is rotated FULLY clockwise (to CLOSE).**

SAT UNSAT

11. PERFORMANCE STEP: Obtain red governor tool and other required tools.

STANDARD: Obtain necessary tools at entrance to AFP room.

COMMENT: Tools may have already been obtained. This step can be performed out of sequence.

CUE: **The Red governor tool and other required tools to disconnect linkage have been obtained.**

SAT UNSAT

12. PERFORMANCE STEP: Disconnect the linkage between the governor and the  
.....C..... governor valve, where the spring meets linkage.

STANDARD: Linkage disconnected where the spring meets the linkage at the second joint from the governor controller with the tools from the emergency hatch cabinet.

CUE: **The linkage is DISCONNECTED.**

SAT UNSAT

13. PERFORMANCE STEP: Block the governor valve, ICS 38B, "full open".  
.....C.....

STANDARD: Pull up on L1, put the Red AFPT governor blocking tool in place above the governor rod in red area on linkage.

CUE: **L1 has been pulled up.**

**The block is in place above the governor rod in the Red area.**

SAT UNSAT

---

14. PERFORMANCE STEP: Slowly open the trip throttle valve, ICS 38C.  
.....C.....

STANDARD: Trip throttle valve, ICS 38C, OPENED by turning the handwheel (slowly) counterclockwise to raise AFPT speed > 600 rpm.

CUE: The trip throttle valve, ICS 38C, handwheel is rotated slowly counterclockwise.

AFPT 1 speed has INCREASED TO 2800 rpm.

---

SAT UNSAT

15. PERFORMANCE STEP: Control the AFPT 1 speed to maintain the required AFW flow.

STANDARD: Ask Control Room for feedback.

CUE: The Control Room Operator directs you to maintain speed at the current value until he can evaluate SG level trend.

---

SAT UNSAT

TERMINATING CUES: This JPM is complete.

---

END TIME

DAVIS-BESSE NUCLEAR POWER STATION  
JOB PERFORMANCE MEASURE WORKSHEET

---

**JPM NO.:** 1B

Rev. 00

Page 7 of 13

**TASK NO.:** 061-019-04-0100, 061-020-04-0100

**TASK DESCRIPTION:** Local Operation of the AFW Pump Turbine 2  
(Use when Train 1 is protected.)

**K/A REFERENCE:** 061-K5.01 3.6/3.9, 061-K6.01 2.5/2.8  
061-A2.03 3.1/3.4

**APPLICABLE METHOD OF TESTING:** Simulate Performance  
In-plant  
Alternate Path

**TIME FOR COMPLETION:** 20 minutes

**APPLICABILITY:**  RO  SRO

**TASK STANDARDS:**

AFW Train 2 manual speed control at the AFPT governor.

**REQUIRED MATERIALS:**

DB-OP-06233, Auxiliary Feedwater System, Revision 05

**GENERAL REFERENCES:**

DB-OP-06233, Auxiliary Feedwater System, Revision 05

**INITIAL CONDITIONS:**

A loss of D2P from 100% power has occurred.  
The reactor has tripped and SFRCS actuated on a loss of four (4) RCPs.  
A loss of AFPT 2 governor speed control and AF 6451, AFW 2 level control valve, failing open is a result of the loss of D2P and is causing an overcooling of the RCS.

**INITIATING CUES:**

You have been directed by the Shift Supervisor to locally control AFPT 2 speed by manual speed control at the AFPT 2 governor valve, in accordance with DB-OP-06233.

(Hand examinee the procedure.)

**INITIAL CONDITIONS:**

A loss of D2P from 100% power has occurred.

The reactor has tripped and SFRCS actuated on a loss of four (4) RCPs.

A loss of AFPT 2 governor speed control and AF 6451, AFW 2 level control valve, failing open is a result of the loss of D2P and is causing an overcooling of the RCS.

**INITIATING CUES:**

You have been directed by the Shift Supervisor to locally control AFPT 2 speed by manual speed control at the AFPT 2 governor valve, in accordance with 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 critical unless denoted in the "Comments".

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

1. PERFORMANCE STEP: Locate the correct procedure.

STANDARD: Identifies Section 5.2 of DB-OP-06233, Auxiliary Feedwater System, as the correct procedure section.

CUE: (if asked) ALL prerequisites have been performed.

\_\_\_\_\_  
SAT UNSAT

2. PERFORMANCE STEP: Attempt to unstick governor valve/linkage.

STANDARD: Applies a downward force to the governor valve linkage labeled L1.

CUE: Governor valve moves inward slightly and is NOT STUCK.

\_\_\_\_\_  
SAT UNSAT

3. PERFORMANCE STEP: Attempt manual speed control from the Control Room or the Auxiliary Shutdown Panel.

STANDARD: Contacts the Control Room to attempt speed control of AFPT 2.

CUE: Control Room Operator informs you he has no speed control of AFPT 2.  
(if necessary) Shift Supervisor directs you to continue with the procedure.

\_\_\_\_\_  
SAT UNSAT

4. PERFORMANCE STEP: In AFPT 2 Room, establish communications with the Reactor Operator.

STANDARD: Establish communications with Reactor Operator via Gai-Tronics or radio.

CUE: You have established communications with a Reactor Operator. The Reactor Operator directs you to reduce AFPT 2 speed.

\_\_\_\_\_  
SAT UNSAT

---

5. PERFORMANCE STEP: Unscrew and remove the electrical connector on the  
.....C..... face of the governor.

STANDARD: Locates electrical connector and unscrews it.

COMMENT: This step must be performed prior to Step 6.

CUE: **The electrical connector is DISCONNECTED.**

---

SAT UNSAT

6. PERFORMANCE STEP: Turn the manual speed setting control knob as  
.....C..... appropriate to control AFPT speed/flow as directed by  
the Reactor Operator.

STANDARD: Locate the manual speed setting knob and adjust to reduce the  
AFPT speed (CCW direction).

COMMENT: AFPT 2 speed will not change regardless of the examinee's  
actions.

CUE: **AFPT 2 speed remains constant.**

**(if asked) AFPT speed is 3600 rpm.**

---

SAT UNSAT

7. PERFORMANCE STEP: Identify AFPT 2 speed control, using the governor  
valve, has failed and route to Section 5.4.

STANDARD: Locate the correct procedure section Identifies Section 5.4 of  
DB-OP-06233, Auxiliary Feedwater System, as correct procedure  
section.

CUE: **(If asked) Shift Supervisor directs you to gain control of AFPT 2  
speed.**

---

SAT UNSAT

8. PERFORMANCE STEP: Establish communication with Control Room.

STANDARD: Utilize the Gai-Tronics or radio to communicate with the  
Control Room.

CUE: **(If asked) You have established communications with the Control  
Room.**

---

SAT UNSAT



- 
9. PERFORMANCE STEP: Unseal the trip throttle valve, ICS 38D.  
.....C.....

STANDARD: The trip throttle valve seal disconnected.

CUE: **The trip throttle valve seal is DISCONNECTED.**

---

SAT UNSAT

10. PERFORMANCE STEP: Close the trip throttle valve, ICS 38D.  
.....C.....

STANDARD: Valve handwheel rotated clockwise to CLOSE.

CUE **Valve handwheel is rotated FULLY clockwise (to CLOSE).**

---

SAT UNSAT

11. PERFORMANCE STEP: Obtain red governor tool and other required tools.

STANDARD: Obtain necessary tools at entrance to AFP room.

COMMENT: Tools may have already been obtained. This step can be performed out of sequence.

CUE: **The Red governor tool and other required tools to disconnect linkage have been obtained.**

---

SAT UNSAT

12. PERFORMANCE STEP: Disconnect the linkage between the governor and the  
.....C..... governor valve, where the spring meets linkage.

STANDARD: Linkage disconnected where the spring meets the linkage at the second joint from the governor controller with the tools from the emergency hatch cabinet.

CUE: **The linkage is DISCONNECTED.**

---

SAT UNSAT

13. PERFORMANCE STEP: Block the governor valve, ICS 38A, "full open".  
.....C.....

STANDARD: Pull up on L1, put the Red AFPT governor blocking tool in place above the governor rod in red area on linkage.

CUE: **L1 has been pulled up.**

**The block is in place above the governor rod in the Red area.**

---

SAT UNSAT

---

14. PERFORMANCE STEP: Slowly open the trip throttle valve, ICS 38D.  
.....C.....

STANDARD: Trip throttle valve, ICS 38D, OPENED by turning the handwheel (slowly) counterclockwise to raise AFPT speed > 600 rpm.

CUE: **The trip throttle valve, ICS 38D, handwheel is rotated slowly counterclockwise.**

**AFPT 2 speed has INCREASED TO 2800 rpm.**

---

SAT UNSAT

15. PERFORMANCE STEP: Control the AFPT 2 speed to maintain the required AFW flow.

STANDARD: Ask Control Room for feedback.

CUE: **The Control Room Operator directs you to maintain speed at the current value until he can evaluate SG level trend.**

---

SAT UNSAT

TERMINATING CUES: This JPM is complete.

---

END TIME



DAVIS-BESSE NUCLEAR POWER STATION  
JOB PERFORMANCE MEASURE WORKSHEET

---

JPM NO.: 57

Rev. 06

Page 1 of 6

TASK NO.: 002-008-04-0100

TASK DESCRIPTION: Borate the RCS from Outside the Control Room

K/A REFERENCE: 004-A2.14 3.8/3.9

APPLICABLE METHOD OF TESTING: Simulate performance  
In-Plant

TIME FOR COMPLETION: 20 minutes

APPLICABILITY: [X] RO [X] SRO

TASK STANDARDS:

1. Lineup for boric acid addition using local valves.
2. Start BA Pump 1.

REQUIRED MATERIALS:

DB-OP-06001, Boron Concentration Control, Revision 2, C-1

GENERAL REFERENCES:

DB-OP-06001, Boron Concentration Control, Revision 2, C-1

INITIAL CONDITIONS:

The plant is in Mode 1 at 100% power.

A load reduction to 50% power is planned.

INITIATING CUES:

The normal boric acid addition method cannot be used.

You have been directed to add 50 gallons of boric acid to the MUT from outside the CTRM using Boric Acid Pump 1, per DB-OP-06001.

(Hand copy of DB-OP-06001 to examinee.)

**INITIAL CONDITIONS:**

The plant is in Mode 1 at 100% power.

A load reduction to 50% power is planned.

**INITIATING CUES:**

The normal boric acid addition method cannot be used.

You have been directed to add 50 gallons of boric acid to the MUT from outside the CTRM using Boric Acid Pump 1, per DB-OP-06001.

PERFORMANCE INFORMATION

NOTE: Critical steps denoted with a "C". Failure to meet any one of these standards for this item constitutes failure. Sequence is assumed unless denoted in the "Comments".

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

1. PERFORMANCE STEP: Locate the correct procedure section.

STANDARD: Identifies DB-OP-06001, Boron Concentration Control, Section 5.1, as the correct procedure section.

COMMENT: Provide correct procedure to examinee. When the correct procedure section has been located, provide the CUE.

CUE: All prerequisites have been completed.

\_\_\_\_\_  
SAT UNSAT

2. PERFORMANCE STEP: Verify valve MU 348, Boric Acid Pump 1 Discharge, is open.

STANDARD: Handwheel/stem position indicate OPEN.

CUE: MU 348, valve stem is UP.

\_\_\_\_\_  
SAT UNSAT

3. PERFORMANCE STEP: Verify valve WC 394, from Concentrates Storage Tank to BAATs Discharge, is open.

STANDARD: Handwheel/stem position indicate OPEN.

CUE: WC 394, valve stem is UP.

\_\_\_\_\_  
SAT UNSAT

4. PERFORMANCE STEP: Verify valve WC 393, Concentrate Storage Tank to MU Filters Line 2, is open.

STANDARD: Handwheel/stem position indicate OPEN.

CUE: WC 393, valve stem is UP.

\_\_\_\_\_  
SAT UNSAT

---

5. PERFORMANCE STEP: Verify MU 351, Boric Acid Pump 2 to Makeup Filters open.

STANDARD: MU 351 stem position indicates OPEN.

CUE: MU 351 valve stem is UP.

---

SAT UNSAT

6. PERFORMANCE STEP: Close MU 363, BAAT 1 to Makeup Filters.  
.....C.....

STANDARD: Handwheel to the CLOSE position.

COMMENT: MU 363 located between BAATs in CA.

CUE: MU 363 has been rotated clockwise/CLOSED; valve stem is DOWN.

---

SAT UNSAT

7. PERFORMANCE STEP: Open MU 366, BAAT 2 to Makeup Filters.  
.....C.....

STANDARD: MU 366 handwheel turned (CCW) until FULLY OPEN.

CUE: MU 366 handwheel has been rotated counterclockwise/OPENED; valve stem is UP.

---

SAT UNSAT

8. PERFORMANCE STEP: Start Boric Acid Pump 1.  
.....C.....

STANDARD: BA Pump 1 started from Control Room.

CUE: Control Room Operator has started BA Pump 1.

---

SAT UNSAT

9. PERFORMANCE STEP: Stop Boric Acid Pump 1.

STANDARD: BA Pump 1 is stopped from the Control Room.

CUE: Control Room Operator reports that 50 gallons have been added to the MUT and BA Pump 1 has been stopped.

---

SAT UNSAT

---

10. PERFORMANCE STEP: Close MU 366, BAAT 2 to Makeup Filters.

STANDARD: Restore L/U, MU 366 handwheel turned (CW) until FULLY CLOSED.

CUE: MU 366 handwheel has been rotated clockwise/CLOSED; Valve stem is DOWN.

---

SAT UNSAT

11. PERFORMANCE STEP: Open MU 363, BAAT 1 to Makeup Filters.

STANDARD: Restore L/U, MU 363 handwheel turned (CCW) until FULLY OPEN.

CUE: MU 363 handwheel has been rotated counterclockwise/OPENED: valve stem is UP.

---

SAT UNSAT

TERMINATING CUES: This JPM is complete.

---

END TIME



**VERIFICATION OF COMPLETION**

Operator \_\_\_\_\_ Evaluator \_\_\_\_\_

SSN \_\_\_\_\_ Date \_\_\_\_\_

License:  RO  SRO

Validated Completion Time: \_\_\_\_\_ minutes

Actual Completion Time: \_\_\_\_\_ minutes

Acceptable Progress Maintained: Yes No N/A

Result:  SATISFACTORY  UNSATISFACTORY

NOTE: An "Unsatisfactory" requires Comment and will require subsequent remedial training.

Comments/Feedback: \_\_\_\_\_

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\_\_\_\_\_/\_\_\_\_\_  
Evaluator's Signature Date