

NUCLEAR POWER BUSINESS UNIT  
INSERVICE TESTS

SI VALVES (COLD SHUTDOWN)  
UNIT 2

IT 215  
MAJOR  
Revision 7  
February 14, 1997

Date \_\_\_\_\_

DSS \_\_\_\_\_

RECORD

PROCEDURE VERIFIED CURRENT AND CHECKED FOR TEMPORARY CHANGES. IF FIELD COPIES REQUIRED, USE PBF-00261 IAW NP 1.2.4 AND DO NOT COMPLETE THIS BLOCK.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

1.0 PURPOSE

The purpose of this test is to perform the following periodic inservice tests:

- 1.1 A cold shutdown full stroke test of the following valves as required by ASME Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Plant Components."

2SI-878A	Reactor vessel SI isolation MOV
2SI-878B	RC loop B SI isolation MOV
2SI-878C	Reactor vessel SI isolation MOV
2SI-878D	RC loop A SI isolation MOV
2SI-897A	SI test line isolation AOV
2SI-897B	SI test line isolation AOV

- 1.2 A cold shutdown exercise test of the following valves to satisfy EQ requirements.

2SI-878A	Reactor vessel SI isolation MOV
2SI-878B	RC Loop B SI isolation
2SI-878C	Reactor vessel SI isolation MOV
2SI-878D	RC loop A SI isolation MOV

2.0 PRECAUTIONS AND LIMITATIONS

- 2.1 For the purposes of valve stroke testing, stroke time is the time it takes the valve to go from full open to full shut or full shut to full open, by the control board indication. The stopwatch should be started at the moment the control switch is actuated.
- 2.2 Technical Specification 15.3.2.A states, "When fuel is in the reactor, there shall be at least one flow path to the core for boric acid injection."

3.0 INITIAL CONDITIONS

- 3.1 The plant is cooling down in accordance with OP-3C.
- 3.2 Containment entry is allowable with RWP, if required.

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\_\_\_\_\_  
\_\_\_\_\_

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- 3.3 A stopwatch is available to time the stoking of valves.  
ID No. \_\_\_\_\_

3.4 **Permission to Perform Test**

The conditions required by this test are consistent with required plant conditions, including equipment operability. Permission is granted to perform this test.

DSS \_\_\_\_\_ Time \_\_\_\_\_ Date \_\_\_\_\_

4.0 PROCEDURE

4.1 Test of 2SI-878A, RV Injection MOV

- 4.1.1 Open 2SI-878A. \_\_\_\_\_
- 4.1.2 Time to open. \_\_\_\_\_ sec. \_\_\_\_\_
- 4.1.3 Check the rising stem position indicator for open indication. \_\_\_\_\_
- 4.1.4 Shut 2SI-878A. \_\_\_\_\_
- 4.1.5 Time to shut. \_\_\_\_\_ sec. \_\_\_\_\_
- 4.1.6 Check the rising stem position indicator for shut indication. \_\_\_\_\_

4.2 Test of 2SI-878C, RV Injection MOV

- 4.2.1 Open 2SI-878C. \_\_\_\_\_
- 4.2.2 Time to open. \_\_\_\_\_ sec. \_\_\_\_\_
- 4.2.3 Check the rising stem position indicator for open indication. \_\_\_\_\_
- 4.2.4 Shut 2SI-878C. \_\_\_\_\_
- 4.2.5 Time to shut. \_\_\_\_\_ sec. \_\_\_\_\_

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|-------|--|-------|
| 4.2.6 | Check the rising stem position indicator for shut indication.  | _____ |
| 4.2.7 | Check valve operability by comparing the valve data with the limits in the Operations Standing Order for 2SI-878A&C. | _____ |
| 4.3   | <u>Test of 2SI-878B, RC Loop B SI Isolation MOV</u>  |       |
| 4.3.1 | Shut 2SI-878B.   | _____ |
| 4.3.2 | Time to shut. _____ sec.   | _____ |
| 4.3.3 | Check the rising stem position indicator for shut indication.  | _____ |
| 4.3.4 | Open 2SI-878B.   | _____ |
| 4.3.5 | Time to open. _____ sec.   | _____ |
| 4.3.6 | Check the rising stem position indicator for open indication.  | _____ |
| 4.4   | <u>Test of 2SI-878D, RC Loop A SI Isolation MOV</u>  |       |
| 4.4.1 | Shut 2SI-878D.   | _____ |
| 4.4.2 | Time to shut. _____ sec.   | _____ |
| 4.4.3 | Check the rising stem position indicator for shut indication.  | _____ |
| 4.4.4 | Open 2SI-878D.   | _____ |
| 4.4.5 | Time to open. _____ sec.   | _____ |
| 4.4.6 | Check the rising stem position indicator for open indication.  | _____ |
| 4.5   | <u>Test of 2SI-897A&amp;B SI Test Line Isolation AOV</u>   |       |
| 4.5.1 | Unit 2 is in cold shutdown.  | _____ |
| 4.5.2 | 2P-15A SI pump control switch is in PULL-OUT.  | _____ |
| 4.5.3 | 2P-15B SI pump control switch is in PULL-OUT.  | _____ |

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- 4.5.4 If not previously done, then ungag 2SI-897A SI test line isolation AOV. \_\_\_\_\_
- 4.5.5 Shut 2SI-897A. \_\_\_\_\_
- a. Time to shut. \_\_\_\_\_ sec. \_\_\_\_\_
- b. Record local VPI. \_\_\_\_\_ % open \_\_\_\_\_
- c. Check annunciator UNIT 2 SI TEST LINE ISOLATED on C-01 alarms. \_\_\_\_\_
- d. Check status light 2SI-897A SI TEST LINE RET SHUT on the Unit 2 SI-SPRAY READY panel on C-01 is lit. \_\_\_\_\_
- 4.5.6 Open 2SI-897A. \_\_\_\_\_
- a. Time to open. \_\_\_\_\_ sec. \_\_\_\_\_
- b. Record local VPI. \_\_\_\_\_ % open \_\_\_\_\_
- c. Check annunciator UNIT 2 SI TEST LINE ISOLATED on C-01 clears. \_\_\_\_\_
- d. Check status light 2SI-897A SI TEST LINE RET SHUT on the Unit 2 SI-SPRAY READY panel on C-01 is off. \_\_\_\_\_
- 4.5.7 If not previously done, then ungag 2SI-897B SI test line isolation AOV. \_\_\_\_\_
- 4.5.8 Shut 2SI-897B. \_\_\_\_\_
- a. Time to shut. \_\_\_\_\_ sec. \_\_\_\_\_
- b. Record local VPI. \_\_\_\_\_ % open \_\_\_\_\_
- c. Check annunciator UNIT 2 SI TEST LINE ISOLATED on C-01 alarms. \_\_\_\_\_
- d. Check status light 2SI-897B SI TEST LINE RET SHUT on the Unit 2 SI-SPRAY READY panel on C-01 is lit. \_\_\_\_\_

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4.5.9 Open 2SI-897B.

a. Time to open. \_\_\_\_\_ sec. \_\_\_\_\_

b. Record local VPI. \_\_\_\_\_ % open \_\_\_\_\_

c. Check annunciator UNIT 2 SI TEST LINE ISOLATED on  
C-01 clears. \_\_\_\_\_

d. Check status light 2SI-897B SI TEST LINE RET SHUT on  
the Unit 2 SI-SPRAY READY panel on C-01 is off. \_\_\_\_\_

**NOTE:** *If it is not desired to gag open 2SI-897A&B, then the DSS  
may NA Step 4.5.10.*

4.5.10 Manually gag open 2SI-897A&B and red lock the handwheels.

a. 2SI-897A gagged open. Lock No. \_\_\_\_\_ / \_\_\_\_\_

b. 2SI-897B gagged open. Lock No. \_\_\_\_\_ / \_\_\_\_\_

4.6 Check valve operability by comparing the valve data with the limits in the  
Operating Standing Order.

INITIALS

5.0 ANALYSIS

**TO BE COMPLETED WITHIN 96 HOURS BY OPERATIONS  
MANAGER OR HIS REPRESENTATIVE.**

5.1 Comparisons with allowable ranges of test values and analysis of  
deviations complete.

5.2 Any requirements for corrective action?

Yes \_\_\_\_\_ No \_\_\_\_\_

(If yes, give details in the remarks section.)

5.3 Data analyzed by \_\_\_\_\_

Time and date \_\_\_\_\_

Remarks: