

NUCLEAR POWER BUSINESS UNIT
INSERVICE TESTS

IT 200
MAJOR
Revision 13
January 31, 1997

PRESSURIZER POWER-OPERATED RELIEF
VALVES AND BLOCK VALVES
(COLD SHUTDOWN)
UNIT 1

Date _____
DSS/DOS _____

RECORD

PROCEDURE VERIFIED CURRENT AND CHECKED FOR TEMPORARY CHANGES IF FIELD
COPIES REQUIRED. USE PBF-0026; 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 & Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components."
- | | |
|----------|-----------------------------------|
| IRC-515 | Power-Operated Relief Block Valve |
| IRC-516 | Power-Operated Relief Block Valve |
| IRC-430 | Power-Operated Relief Valve |
| IRC-431C | Power-Operated Relief Valve |
- 1.2 A quarterly stroke of power-operated relief isolation (block) valves IRC-515 & 516, as required by Technical Specification Table 15.4.1-2, Item 21, and by ASME Boiler & Pressure Vessel Code, Section XI, "Rules for the Inservice Inspection of Nuclear Power Plant Components."
- 1.3 A quarterly stroke of power-operated relief isolation (block) valves IRC-515 & 516, to satisfy EQ requirements.
- 1.4 A quarterly functional check and refueling shutdown calibration of the position indicators for power-operated relief isolation (block) valves IRC-515 and IRC-516, as required by Technical Specification Table 15.4.1-1, Item 33.
- 1.5 A cold shutdown full stroke test of the power-operated relief valves IRC-430 and IRC-431C as required by Technical Specification Table 15.4.1-2, Item 27.
- 1.6 A refueling shutdown alarm test of the power-operated relief valves IRC-430 and IRC-431C as required by Technical Specification Table 15.4.1-1 calibration portion of Item 34.
- 1.7 A refueling shutdown calibration and test of the position indicators for power-operated relief valves, IRC-430 and IRC-431C, as required by Technical Specification Table 15.4.1-1, Item 35.

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- 1.8 A stroke test of the power-operated relief valves IRC-430 and IRC-431C to satisfy EQ requirements.
- 1.9 Verify the operability of the PORVs with IA available and with the N₂ backup system when IA is unavailable.
- 1.10 A cold shutdown stroke open, stroke closed, and a seat leakage test of the following check valves IA-1206, 1209, 1301, 1302, 1605 and 1606 as required by Technical Specification Table 15.4.1-2, Item 27 and ASME XI.

2.0 REFERENCES

IR 96-006, NRC Inspection Report; NRC Commitment for Operations procedures PMT/QC reviews.

3.0 PRECAUTIONS AND LIMITATIONS

- 3.1 For the purpose of valve stroke testing, the 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.
- 3.2 The local valve position indicator for remotely operated valves will be checked during refueling shutdowns only.
- 3.3 Although this test may be performed when the system is aligned for LTOP, it should preferably be performed when LTOP is not required.
- 3.4 When the system is aligned for LTOP, at least one PORV must be operable throughout the test.

4.0 INITIAL CONDITIONS

INITIALS

- 4.1 This test is being done to satisfy:

_____ The normally scheduled callup. Task Sheet No. _____

_____ Post maintenance operability test for _____ (equip. ID)
WO No.(s) _____

_____ Special test - no numbers
Explain: _____

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RECORD

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COPIES REQUIRED, USE PBF-0026; 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 & Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components."

IRC-515	Power-Operated Relief Block Valve
IRC-516	Power-Operated Relief Block Valve
IRC-430	Power-Operated Relief Valve
IRC-431C	Power-Operated Relief Valve

- 1.2 A quarterly stroke of power-operated relief isolation (block) valves IRC-515 & 516, as required by Technical Specification Table 15.4.1-2, Item 21, and by ASME Boiler & Pressure Vessel Code, Section XI, "Rules for the Inservice Inspection of Nuclear Power Plant Components."
- 1.3 A quarterly stroke of power-operated relief isolation (block) valves IRC-515 & 516, to satisfy EQ requirements.
- 1.4 A quarterly functional check and refueling shutdown calibration of the position indicators for power-operated relief isolation (block) valves IRC-515 and IRC-516, as required by Technical Specification Table 15.4.1-1, Item 33.
- 1.5 A cold shutdown full stroke test of the power-operated relief valves IRC-430 and IRC-431C as required by Technical Specification Table 15.4.1-2, Item 27.
- 1.6 A refueling shutdown alarm test of the power-operated relief valves IRC-430 and IRC-431C as required by Technical Specification Table 15.4.1-1 calibration portion of Item 34.
- 1.7 A refueling shutdown calibration and test of the position indicators for power-operated relief valves, IRC-430 and IRC-431C, as required by Technical Specification Table 15.4.1-1, Item 35.

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- 1.8 A stroke test of the power-operated relief valves 1RC-430 and 1RC-431C to satisfy EQ requirements.
- 1.9 Verify the operability of the PORVs with IA available and with the N₂ backup system when IA is unavailable.
- 1.10 A cold shutdown stroke open, stroke closed, and a seat leakage test of the following check valves IA-1206, 1209, 1301, 1302, 1605 and 1606 as required by Technical Specification Table 15.4.1-2, Item 27 and ASME XI.

2.0 REFERENCES

IR 96-006, NRC Inspection Report; NRC Commitment for Operations procedures PMT/QC reviews.

3.0 PRECAUTIONS AND LIMITATIONS

- 3.1 For the purpose of valve stroke testing, the 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.
- 3.2 The local valve position indicator for remotely operated valves will be checked during refueling shutdowns only.
- 3.3 Although this test may be performed when the system is aligned for LTOP, it should preferably be performed when LTOP is not required.
- 3.4 When the system is aligned for LTOP, at least one PORV must be operable throughout the test.

4.0 INITIAL CONDITIONS

INITIALS

- 4.1 This test is being done to satisfy:

_____ The normally scheduled callup. Task Sheet No. _____

_____ Post maintenance operability test for _____ (equip. ID)
WO No.(s) _____

_____ Special test - no numbers
Explain: _____

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4.2 When the system is aligned for LTOP, then both PORV trains are operable for LTOP. _____

4.3 N₂ cylinder pressure is >1400 psig for 1RC-430. _____

N₂ cylinder pressure is >1400 psig for 1RC-431C. _____

4.4 A stopwatch is available for timing the stroking of valves. _____

ID No. _____

4.5 The PRT is in a condition to accept the consequence of cycling the PORVs if the RCS is pressurized. _____

4.6 **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 _____

CAUTION WHEN THE SYSTEM IS ALIGNED FOR LTOP, 1RC-431C SHALL BE OPERABLE WHILE PERFORMING SECTIONS 5.0 THROUGH 9.0.

NOTE: *Reference Figure 1 during the performance of this test.*

NOTE: *If a stroke test of PORV 1RC-430, block valve 1RC-516, or a stroke open test of IA-1206 or 1605 is not required, Section 5.0 may be N/A.*

5.0 STROKE TEST OF POWER-OPERATED RELIEF VALVE 1RC-430 AND BLOCK VALVE 1RC-516 WITH INSTRUMENT AIR SUPPLY AVAILABLE AND STROKE OPEN TEST OF IA-1206 AND 1605 CHECK VALVES

5.1 Declare 1RC-430 OOS. N/A Steps which are not applicable. _____

5.1.1 If LTOP is not required (T.S. 15.3.15.A.2), go to Step 5.2. _____

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- 5.1.2 If RCS temp is $>200^{\circ}\text{F}$ but less than 360°F , enter a 7 day LCO. _____
- 5.1.3 RCS temp is $\leq 200^{\circ}\text{F}$, enter a 24 hr. LCO. _____
- 5.2 Shut instrument air check valve bypass valve IA-1207. _____
- 5.3 Shut 1RC-516, PZR PORV Isolation MOV
- 5.3.1 Time to shut. _____ sec.
- 5.3.2 Check the rising stem indicator for shut indication. _____
- 5.3.3 Check for shut indication on the control board. _____
- 5.4 Open 1RC-430, Pressurizer PORV
- 5.4.1 Time to open. _____ sec.
- 5.4.2 Check the local valve position indicator for open indication.
_____ % open
- 5.4.3 Check for open indication on the control board. _____
- 5.4.4 Check "PORV NOT SHUT" annunciator comes in on 1C04. _____
- 5.5 Shut 1RC-430, Pressurizer PORV
- 5.5.1 Time to shut. _____ sec.
- 5.5.2 Check the local valve position indicator for shut indication.
_____ % open
- 5.5.3 Check for shut indication on the control board. _____
- 5.5.4 Check "PORV NOT SHUT" annunciator clears on 1C04. _____
- 5.6 Open 1RC-516, PZR PORV Isolation MOV
- 5.6.1 Time to open. _____ sec.

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- 5.6.2 Check the rising stem indicator for open indication. _____
- 5.6.3 Check for open indication on the control board. _____
- 5.7 Check valve operability by comparing the valve data with the limits in the
IST Acceptance Criteria Binder. _____

*NOTE: If a stroke test of 1RC-430 using N₂ or stroke open test of IA-1301 is not
required, then Section 6.0 may be N/A.*

6.0 STROKE TEST OF POWER-OPERATED RELIEF VALVE 1RC-430 WHILE
USING N₂ BACKUP AND STROKE OPEN TEST OF IA-1301 CHECK
VALVE

- 6.1 Verify open the N₂ cylinder stop. _____
- 6.2 Verify open the N₂ supply header stop IA-1203. _____
- 6.3 Record N₂ cylinder pressure. _____ psig _____
- 6.4 Isolate IA supply to 1RC-430 by shutting IA-1205. _____
- 6.5 Adjust N₂ regulator (IA-6310) delivery pressure to 100 psig. _____
- 6.6 Shut 1RC-516, PZR PORV isolation MOV. _____
- 6.7 Open 1RC-430, Pressurizer PORV
- 6.7.1 Time to open. _____ sec. _____
- 6.7.2 Check the local valve position indicator for open indication.
_____ % open _____
- 6.7.3 Check for open indication on the control board. _____
- 6.7.4 Check "PORV NOT SHUT" annunciator comes in on 1C04. _____

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- 6.7.5 Check no gross N₂ leakage at the operator for 1RC-430. _____
- 6.8 Shut 1RC-430, Pressurizer PORV
- 6.8.1 Time to shut. _____ sec.
- 6.8.2 Check the local valve position indicator for shut indication.
_____ % open
- 6.8.3 Check for shut indication on the control board. _____
- 6.8.4 Check "PORV NOT SHUT" annunciator clears on 1C04. _____
- 6.9 Record N₂ Cylinder Pressure. _____ psig
- 6.9.1 Pressure from 6.3 _____ psig minus
- 6.9.2 Pressure from 6.9 _____ psig equals
- 6.9.3 Pressure drop/valve cycle _____ psig _____
- 6.10 If the nitrogen bottle pressure drop is:
- 6.10.1 ≤25 psig - go to Step 6.11. _____
- 6.10.2 >25 psig
- a. Reopen 1RC-430 _____
- b. Correct the leakage at the valve operator _____
- c. Shut 1RC-430 _____
- d. Perform stroke test per 6.4 through 6.10. _____
- e. Note all corrective actions in remarks section. _____
- 6.11 Open 1RC-516, PZR PORV Isolation MOV. _____

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6.12 Open IA-1205.

NOTE: If N₂ bottle pressure is <1400 psig, change the N₂ bottle.

6.13 Record final N₂ bottle pressure. _____ psig

6.14 Check valve operability by comparing the valve data with the limit in the
IST Acceptance Criteria Binder.

*NOTE: If a stroke closed or seat leakage test of IA-1301 is not required, Section 7.0
may be N/A.*

7.0 STROKE CLOSED AND SEAT LEAKAGE TEST OF CHECK VALVE
IA-1301

7.1 Shut the N₂ cylinder stop for 1RC-430.

7.2 Shut the N₂ supply header stop IA-1203.

7.3 Uncap and open N₂ vent IA-1303.

7.4 Perform a stroke closed and seat leakage test of IA-1301 by:

7.4.1 Open N₂ supply header stop IA-1203.

7.4.2 When the piping has been depressurized or 20 seconds has
elapsed, check if piping can be depressurized.

_____ YES - TEST SAT, continue with Step 7.5.

_____ NO - TEST UNSAT, submit WO for IA-1301, consider
IA-1301 OOS, and continue with Step 7.5.

7.5 Shut and cap N₂ vent valve IA-1303.

7.6 Open the N₂ cylinder stop valve for 1RC-430.

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7.7 Check open N₂ supply header stop valve IA-1203.

NOTE: *If a stroke closed or seat leakage test of IA-1605 and/or 1206 is not required, Section 8.0 may be N/A.*

8.0 STROKE CLOSED AND SEAT LEAKAGE TEST VALVES
IA-1605 AND 1206

8.1 Check shut IA-1207 instrument air check valve bypass valve.

8.2 Shut IA-1205 instrument air supply to 1RC-430.

8.3 Loosen the tubing connection on the outlet side (PORV side) of IA-1205 to depressurize tubing. Tubing may be completely disconnected if required.

8.4 Once depressurized, check for seat leakage on IA-1206 and 1605 by use of SNOOP on the loosened connection on the downstream side of IA-1205.

_____ No leakage evident - TEST SAT

NOTE: *Some check valve leakage is acceptable as long as N₂ cylinder pressure drop is ≤ 20 psig/hr.*

_____ Leakage evident - acceptability to be determined by drop test.

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NOTE: *N₂ cylinder drop test is to be performed regardless of whether the check valve seat leakage test indicated seat leakage or not.*

8.5 N₂ System Leak Test for 1RC-430

Record Time _____ N₂ cylinder pressure _____
After a minimum of 15 minutes (1 hr. max)

Record Time _____ N₂ cylinder pressure _____

Calculate rate of N₂ cylinder pressure drop
_____ psig/hr

If ≤ 20 psig/hr - TEST SAT _____

If > 20 psig/hr, SNOOP leak test the N₂ supply system from the N₂ bottle up to the PORV solenoid valve and correct any leakage until N₂ usage is ≤ 20 psig/hr. If leakage is due to check valves IA-1206 and 1605, submit WOs to have them repaired/replaced and consider them OOS. Note any action taken in the remarks section.

8.6 Reconnect/tighten tubing on the outlet side of IA-1205 (from Step 8.3).

PMT

8.7 Open IA-1205 instrument air supply to 1RC-430 and SNOOP check fitting.

9.0 PLACE 1RC-430 IN-SERVICE WITH INSTRUMENT AIR AND N₂ BACKUP ALIGNED FOR LTOP

9.1 Perform Independent Second Check of IA Valves for 1RC-430

N ₂ cylinder stop for 1RC-430	OPEN	_____
IA-1203 N ₂ supply header stop	OPEN	_____
IA-1205 instrument air supply to 1RC-430	OPEN	_____
IA-1207 instrument air check valves bypass	SHUT	_____

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NOTE: *The key switch for LTOP on 1C04 is procedurally controlled by OP-3C/CL-4C.*

9.2 Perform Independent Second Check of Valve Control Switches at 1C04

1RC-430	PORV	AUTO & SHUT	_____
1RC-516	Block Valve	Midposition & OPEN	_____
1RC-430	LTOP Enable Key Switch	As Directed by DSS	_____

9.3 Return 1RC-430 to service and exit LCO (TS 15.3.15.A.2) if LTOP is required. _____

CAUTION WHEN THE SYSTEM IS ALIGNED FOR LTOP, 1RC-430 SHALL BE OPERABLE WHILE PERFORMING SECTIONS 10.0 THROUGH 14.0.

NOTE: *If a stroke test of PORV 1RC-431C, block valve 1RC-515 or a stroke open test of IA-1209 or 1606 is not required, Section 10.0 may be N/A.*

10.0 STROKE TEST OF POWER-OPERATED RELIEF VALVE 1RC-431C AND BLOCK VALVE 1RC-515 WITH INSTRUMENT AIR SUPPLY AVAILABLE AND STROKE OPEN TEST OF IA-1209 AND 1606 CHECK VALVES

10.1 Declare 1RC-431C OOS. N/A steps which are not applicable. _____

10.1.1 If LTOP is not required (T.S. 15.3.15.A.2), go to step 10.2. _____

10.1.2 If RCS temp is >200°F but less than 360°F, enter a 7 day LCO. _____

10.1.3 RCS temp is ≤200°F, enter a 24 hr. LCO. _____

10.2 Shut instrument air check valve bypass valve IA-1210. _____

10.3 Shut 1RC-515, PZR PORV Isolation MOV

10.3.1 Time to shut. _____ sec. _____

10.3.2 Check the rising stem indicator for shut indication. _____

10.3.3 Check for shut indication on the control board. _____

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10.4 Open IRC-431C, Pressurizer PORV

10.4.1 Time to open. _____ sec.

10.4.2 Check the local valve position indicator for open indication.
_____ % open

10.4.3 Check for open indication on the control board. _____

10.4.4 Check "PORV NOT SHUT" annunciator comes in on 1C04. _____

10.5 Shut IRC-431C, Pressurizer PORV

10.5.1 Time to shut. _____ sec.

10.5.2 Check the local valve position indicator for shut indication.
_____ % open

10.5.3 Check for shut indication on the control board. _____

10.5.4 Check "PORV NOT SHUT" annunciator clears on 1C04. _____

10.6 Open IRC-515, PZR PORV Isolation Valve

10.6.1 Time to open. _____ sec.

10.6.2 Check the rising stem indicator for open indication. _____

10.6.3 Check for open indication on the control board. _____

10.7 Check valve operability by comparing the valve data with the limits in the
IST Acceptance Criteria Binder. _____

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NOTE: If a stroke open test of 1RC-431C using N₂ or stroke open test of IA-1302 is not required, then Section 11.0 may be N/A.

11.0 STROKE TEST OF POWER-OPERATED RELIEF VALVE 1RC-431C WHILE USING N₂ BACKUP AND STROKE OPEN TEST OF IA-1302 CHECK VALVE

- 11.1 Verify open the N₂ cylinder stop. _____
- 11.2 Verify open the N₂ supply header stop IA-1204. _____
- 11.3 Record N₂ cylinder pressure. _____ psig _____
- 11.4 Isolate IA supply to 1RC-431C by shutting IA-1208. _____
- 11.5 Adjust N₂ regulator (IA-6311) delivery pressure to 100 psig. _____
- 11.6 Shut 1RC-515, PZR PORV isolation, MOV _____
- 11.7 Open 1RC-431C, Pressurizer PORV
- 11.7.1 Time to open. _____ sec. _____
- 11.7.2 Check the local valve position indicator for open indication. _____ % open _____
- 11.7.3 Check for open indication on the control board. _____
- 11.7.4 Check "PORV NOT SHUT" annunciator comes in on 1C04. _____
- 11.7.5 Check no gross N₂ leakage at the operator for 1RC-431C. _____
- 11.8 Shut 1RC-431C, Pressurizer PORV
- 11.8.1 Time to shut. _____ sec. _____
- 11.8.2 Check the local valve position indicator for shut indication. _____ % open _____

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- 11.8.3 Check for shut indication on the control board. _____
- 11.8.4 Check "PORV NOT SHUT" annunciator clears on 1C04. _____
- 11.9 Record N₂ Cylinder Pressure. _____ psig
- 11.9.1 Pressure from 11.3 _____ psig minus
- 11.9.2 Pressure from 11.9 _____ psig equals
- 11.9.3 Pressure drop/valve cycle _____ psig _____
- 11.10 If the nitrogen bottle pressure drop is:
- 11.10.1 ≤ 25 psig - go to Step 11.11 _____
- 11.10.2 > 25 psig _____
- a. Reopen 1RC-431C _____
- b. Correct the leakage at the valve operator _____
- c. Shut 1RC-431C _____
- d. Perform stroke test per 11.4 through 11.10 _____
- e. Note all corrective actions in remarks section. _____
- 11.11 Open 1RC-515, PZR PORV isolation MOV _____
- 11.12 Open IA-1208 _____
- NOTE:** *If N₂ bottle pressure is < 1400 psig, change the N₂ bottle.*
- 11.13 Record final N₂ bottle pressure. _____ psig _____
- 11.14 Check valve operability by comparing the valve data with the limit in the
IST Acceptance Criteria Binder. _____

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NOTE: *If a stroke closed or seat leakage test of IA-1302 is not required,
Section 12.0 may be N/A.*

12.0 STROKE CLOSED AND SEAT LEAKAGE TEST OF CHECK VALVE
IA-1302

12.1 Shut the N₂ cylinder stop for IRC-431C. _____

12.2 Shut the N₂ supply header stop IA-1204. _____

12.3 Uncap and open N₂ vent IA-1304. _____

12.4 Perform a stroke closed and seat leakage test of IA-1302 by:

12.4.1 Open N₂ supply header stop IA-1204. _____

12.4.2 When the piping has been depressurized or 20 seconds has
elapsed, check if piping can be depressurized.

_____ YES - TEST SAT, continue with Step 12.5.

_____ NO - TEST UNSAT, submit WO for IA-1302,
consider IA-1302 OOS, and continue with Step 12.5.

12.5 Shut and cap N₂ vent valve IA-1304. _____

12.6 Open the N₂ cylinder stop valve for IRC-431C. _____

12.7 Check open N₂ supply header stop valve IA-1204. _____

NOTE: *If a stroke closed or seat leakage test of IA-1209 and/or 1606 is not
required, Section 13.0 may be N/A.*

13.0 STROKE CLOSED AND SEAT LEAKAGE TEST OF CHECK VALVES
IA-1209 AND 1606

13.1 Check shut IA-1210 instrument air check valve bypass valve. _____

13.2 Shut IA-1208 instrument air supply to IRC-431C. _____

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- 13.3 Loosen the tubing connection on the outlet side (PORV side) of IA-1208 to depressurize tubing. Tubing may be completely disconnected if required.

- 13.4 Once depressurized, check for seat leakage on IA-1209 and 1606 by use of SNOOP on the loosened tubing connection on the downstream side of IA-1208.

_____ No leakage evident - TEST SAT

NOTE: *Some check valve leakage is acceptable as long as N₂ cylinder pressure drop is ≤ 20 psig/hr.*

_____ Leakage evident - acceptability to be determined by drop test.

NOTE: *N₂ cylinder drop test is to be performed regardless of whether the check valve seat leakage test indicated seat leakage or not.*

13.5 N₂ System Leak Test for IRC-431C

Record Time _____ N₂ cylinder pressure _____

After a minimum of 15 minutes (1 hr. max)

Record Time _____ N₂ cylinder pressure _____

Calculate rate of N₂ cylinder pressure drop
_____ psig/hr

If ≤ 20 psig/hr - TEST SAT _____

If > 20 psig/hr, SNOOP leak test the N₂ supply system from the N₂ bottle up to the PORV solenoid valve and correct any leakage until N₂ usage is ≤ 20 psig/hr. If leakage is due to check valves IA-1209 and 1606, submit WOs to have them repaired/replaced and consider them OOS. Note any action taken in the remarks section.

- 13.6 Reconnect/tighten tubing on the outlet side of IA-1208 (from Step 13.3).

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13.7 Open IA-1208 instrument air supply to 1RC-431C and SNOOP check fitting.

14.0 PLACE 1RC-431C IN-SERVICE WITH INSTRUMENT AIR AND N₂ BACKUP ALIGNED FOR LTOP

14.1 Perform Independent Second Check of IA Valves for 1RC-431C

N ₂ cylinder stop for 1RC-431C	OPEN	_____
IA-1204 N ₂ supply header stop	OPEN	_____
IA-1208 instrument air supply to 1RC-431C	OPEN	_____
IA-1210 instrument air check valves bypass	SHUT	_____

NOTE: *The key switch for LTOP on 1C04 is procedurally controlled by OP-3C/CL-4C*

14.2 Perform Independent Second Check of Valve Control Switches at 1C04

1RC-431C	PORV	AUTO & SHUT	_____
1RC-515	Block Valve	Midposition & OPEN	_____
1RC-431C	LTOP Enable Key Switch	As Directed by DSS	_____

14.3 Return 1RC-431C to service and exit LCO (TS 15.3.15.A.2) if LTOP is required.

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15.0 ANALYSIS

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

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

15.2 Any requirements for corrective action? _____

Yes _____ No _____

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

15.3 Data analyzed by _____

Time and date _____

Remarks:

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NOTE: System shown aligned for LTOP

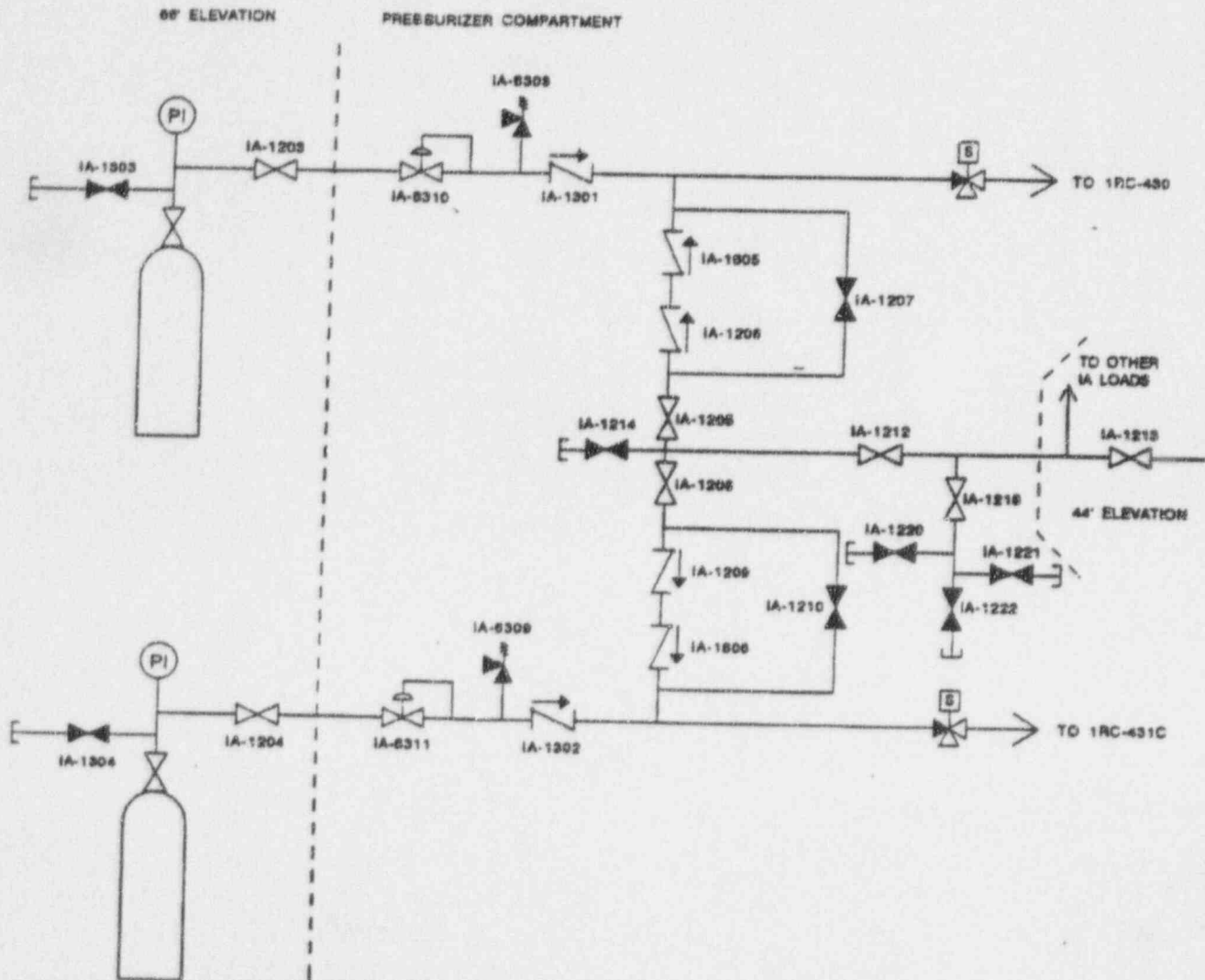


FIGURE 1: PORV PNEUMATIC SYSTEM