

NUCLEAR POWER BUSINESS UNIT
OPERATIONS REFUELING TESTS

ORT 31
MINOR
Revision 11
January 31, 1997

NITROGEN SUPPLY TO THE PRESSURIZER
RELIEF TANK
UNIT 1

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 ORT 31 is to perform a shut exercise test of check valve 1RC-528 and to perform a refueling shutdown seat leakage test of valves 1RC-528 and 1RC-595 to meet the requirements of ASME Boiler and Pressure Vessel Code, Section XI, "Rules for the Inservice Inspection of Nuclear Power Plant Components," and 10 CFR 50, Appendix J.

2.0 REFERENCES

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

3.0 PRECAUTIONS AND LIMITATIONS

- 3.1 Locate the Volumetrics tester in an area which will limit personal exposure.
- 3.2 Do not allow liquids to enter the Volumetrics tester or damage may occur.
- 3.3 All liquids must be drained from piping subsystem prior to attaching the test rig.
- 3.4 This system may contain contaminated gases and liquids and the plant areas being entered may be high radiation areas. Appropriate health physics practices should be observed.

4.0 INITIAL CONDITIONS

- 4.1 The unit is in a cold or refueling shutdown condition.
- 4.2 The leak rate test rig is available inside containment.
- 4.3 Remove the last page (Attachment A) from the ORT and place it in the "Penetration Open" section of the Containment Penetration Closure Notebook.

INITIALS

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UNIT 1

INITIALS

NOTE: *The containment isolation valve(s) may be shut during the performance of some ORTs.*

4.4 Complete the "Penetration Open" section of CL-1E (Containment Closure Checklist).

4.5 **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 _____

5.0 PROCEDURE

5.1 Record the as-found position of components and valves on the attached data sheet.

5.2 Perform an exercise test of check valve 1RC-528 as follows:

5.2.1 Shut the following valves:

1RC-532

1RC-589

1RC-595

5.2.2 Drain the 1RC-528 header to a floor drain via 1RC-1420 and 1RC-1420A.

5.2.3 Open 1RC-1420 and 1RC-1420A.

5.2.4 Attach the test rig at 1RC-1420 and blow air through 1RC-528.

5.2.5 Check for air flow out of 1RC-1420A to verify 1RC-528 check valve opening.

5.2.6 Vent and detach the test rig.

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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 ORT 31 is to perform a shut exercise test of check valve 1RC-528 and to perform a refueling shutdown seat leakage test of valves 1RC-528 and 1RC-595 to meet the requirements of ASME Boiler and Pressure Vessel Code, Section XI, "Rules for the Inservice Inspection of Nuclear Power Plant Components," and 10 CFR 50, Appendix J.

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3.0 PRECAUTIONS AND LIMITATIONS

- 3.1 Locate the Volumetrics tester in an area which will limit personal exposure.
- 3.2 Do not allow liquids to enter the Volumetrics tester or damage may occur.
- 3.3 All liquids must be drained from piping subsystem prior to attaching the test rig.
- 3.4 This system may contain contaminated gases and liquids and the plant areas being entered may be high radiation areas. Appropriate health physics practices should be observed.

4.0 INITIAL CONDITIONS

- 4.1 The unit is in a cold or refueling shutdown condition.
- 4.2 The leak rate test rig is available inside containment.
- 4.3 Remove the last page (Attachment A) from the ORT and place it in the "Penetration Open" section of the Containment Penetration Closure Notebook.

INITIALS

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INITIALS

NOTE: *The containment isolation valve(s) may be shut during the performance of some ORTs.*

4.4 Complete the "Penetration Open" section of CL-1E (Containment Closure Checklist).

4.5 **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 _____

5.0 PROCEDURE

5.1 Record the as-found position of components and valves on the attached data sheet.

5.2 Perform an exercise test of check valve 1RC-528 as follows:

5.2.1 Shut the following valves:

1RC-532

1RC-589

1RC-595

5.2.2 Drain the 1RC-528 header to a floor drain via 1RC-1420 and 1RC-1420A.

5.2.3 Open 1RC-1420 and 1RC-1420A.

5.2.4 Attach the test rig at 1RC-1420 and blow air through 1RC-528.

5.2.5 Check for air flow out of 1RC-1420A to verify 1RC-528 check valve opening.

5.2.6 Vent and detach the test rig.

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NOTE: *For post-maintenance testing or operability checks when only one value or group of valves is being tested, omit steps:*

5.4.1 through 5.4.5 when testing valve IRC-528

5.3.1 through 5.3.4 when testing valve IRC-595

- 5.3 Perform a leak test of check valve IRC-528, if required, as follows:
- 5.3.1 Align valves per dwg B-IVLT-14A-P. _____
- 5.3.2 Attach the test rig at IRC-1420A. _____
- 5.3.3 Pressurize the section of line to 65 psig and test per OI-58. _____
- 5.3.4 Vent and detach the test rig. _____
- 5.4 Perform the secondary test of valve IRC-595, if required, as follows:
- 5.4.1 Align valves per dwg B-IVLT-14A-S. _____
- 5.4.2 Attach the test rig at IRC-1420. _____
- 5.4.3 Remove the spoolpiece between valves IRC-595 and IRC-441 to provide a vent path. _____
- 5.4.4 Pressurize the section of line to 65 psig and test per OI-58. _____
- 5.4.5 Vent and detach the test rig. _____
- 5.5 Return components and valves to positions directed by the duty shift superintendent. Record the positions on the attached data sheet. _____
- 5.6 Shut and cap the following valves:
- 5.6.1 IRC-1420 _____
- 5.6.2 IRC-1420A _____
- 5.7 Notify the DSS/DOS that the ORT is complete. _____

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5.8 Remove the drawing from the "Penetration Open" section of the
Containment Penetration Closure Notebook and discard the drawing.

5.9 Complete the "Penetration Closed" section of CL-1E (Containment
Closure Checklist).

PMT

5.10 Leak check N₂ line spoolpiece connections when line is at operating
pressure.

6.0 EVALUATION

To be completed by Operations manager or his representative.

6.1 Individual leakages compared to allowable value and included in
tabulation of total leak rate (Index 41).

6.2 Results acceptable, no limits exceeded.

Yes _____ No _____

(If no, give details in the remarks section and notify the Regulatory
Services manager to determine reportability.)

6.3 Data Analyzed By: _____

Date: _____

Remarks:

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LEAK TEST DATA SHEET

| <u>Valve Number</u> | <u>As-Found Position</u> | <u>Initials</u> | <u>Final Position</u> | <u>Initials</u> |
|---------------------|------------------------------|-----------------|---------------------------|-----------------|
| IRC-532 | _____ | _____ | _____ | _____ |
| IRC-589 | _____ | _____ | _____ | _____ |
| IRC-595 | _____ | _____ | _____ | _____ |
| IRC-1420 | _____ | _____ | _____ | _____ |
| IRC-1420A | _____ | _____ | _____ | _____ |
| IRC-441 | _____ | _____ | _____ | _____ |
| ING-1662 | _____ | _____ | _____ | _____ |
| Spoolpiece | _____ | _____ | _____ | _____ |
| Cap at IRC-1420 | _____ | _____ | _____ | _____ |
| Cap at IRC-1420A | _____ | _____ | _____ | _____ |

Valve No. IRC-528

| <u>Time</u> | <u>Pressure (psig)</u> | <u>Leak Rate (sccm)</u> |
|-------------|----------------------------|-----------------------------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Test Instrument ID _____ Range _____

Valve No. IRC-595

| <u>Time</u> | <u>Pressure (psig)</u> | <u>Leak Rate (sccm)</u> |
|-------------|----------------------------|-----------------------------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

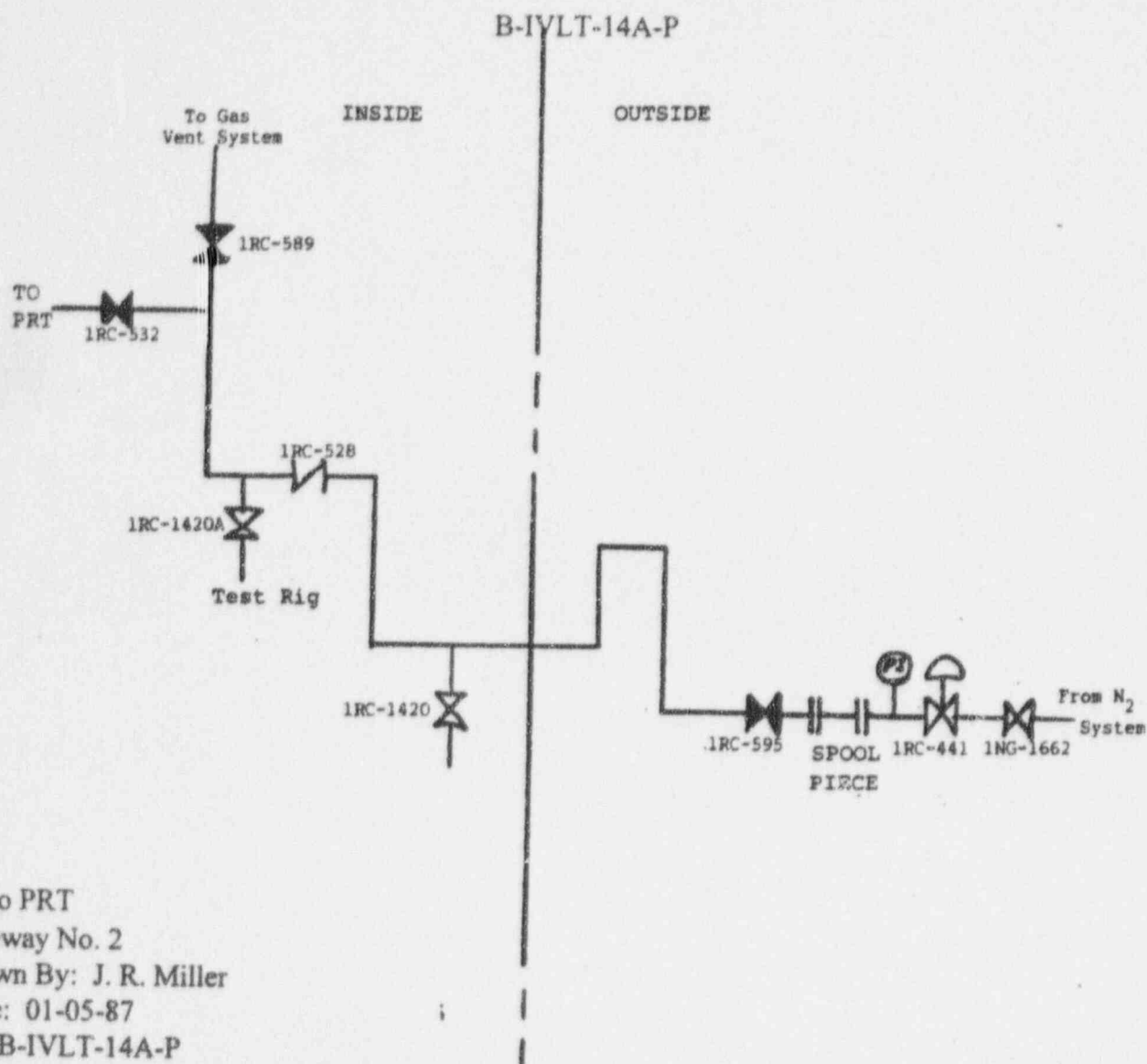
Test Instrument ID _____ Range _____

Comments:

Completed By _____ DSS/DOS _____

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DRAWING N₂ TO PRT



N₂ to PRT
Pipeway No. 2
Drawn By: J. R. Miller
Date: 01-05-87
No. B-IVLT-14A-P

TO TEST VALVE 1RC-528

SHUT: 1RC-532, 1RC-589, and 1RC-595

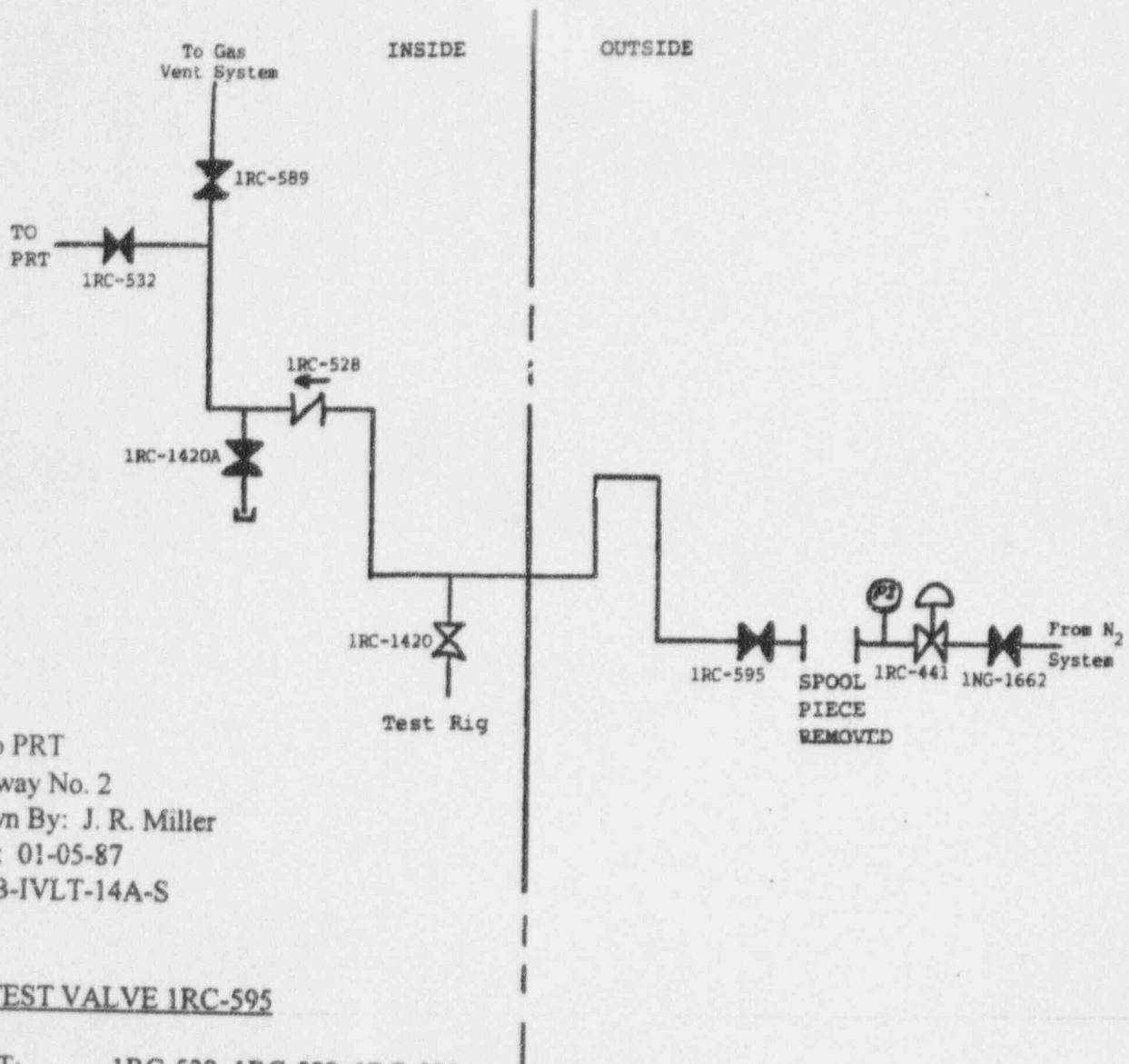
OPEN: 1RC-1420A and 1RC-1420
Remove cap at 1RC-1420

NITROGEN SUPPLY TO THE PRESSURIZER
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IT 1

DRAWING N₂ TO PRT

B-IVLT-14A-S



N₂ to PRT
Pipeway No. 2
Drawn By: J. R. Miller
Date: 01-05-87
No. B-IVLT-14A-S

TO TEST VALVE 1RC-595

SHUT: 1RC-532, 1RC-589, 1RC-595,
and 1NG-1662

SHUT AND CAP: 1RC-1420A

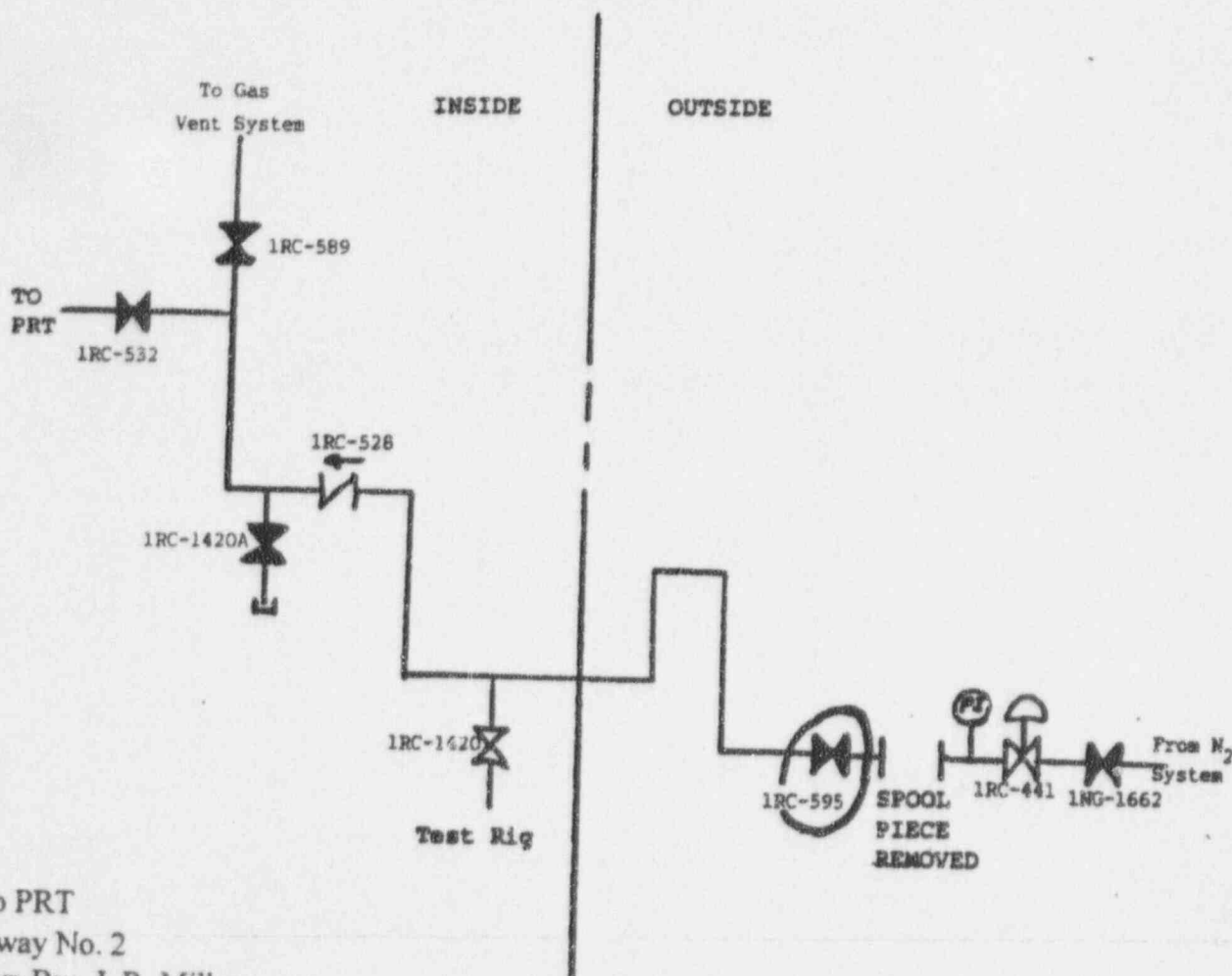
OPEN: 1RC-1420 and remove spoolpiece

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ATTACHMENT A
CLOSURE

DRAWING N₂ TO PRT

B-IVLT-14A-ATT A



N₂ to PRT
Pipeway No. 2
Drawn By: J. R. Miller
Date: 01-05-87
No. B-IVLT-14A-ATT A

To Set Containment Closure:

SHUT: 1RC-595