



Nebraska Public Power District

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10 CFR 50.55a

NLS2018063
November 8, 2018

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: 10 CFR 50.55a Relief Request PR5-02 Supplement
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Reference: Letter NLS2018061 dated November 5, 2018, from John Dent, Jr., Nebraska
Public Power District (NPPD) to Nuclear Regulatory Commission (NRC),
"10 CFR 50.55a Relief Request PR5-02"

Dear Sir or Madam:

The purpose of this letter is for NPPD to supplement the emergent relief request made on
November 5, 2018 (Reference).

Relief Request PR5-02 will be used only for the duration of Refueling Outage 30. The
information requested by the NRC in relation to the referenced letter was provided via email on
November 5, 2018. This same information is attached to this letter.

This letter contains no regulatory commitments.

Should you have any questions concerning this matter, please contact Jim Shaw, Licensing
Manager, at (402) 825-2788.

Sincerely,

John Dent, Jr. For John Dent per Telecon

John Dent, Jr.
Vice President Nuclear and
Chief Nuclear Officer

/tf

Attachment: Cooper Nuclear Station Relief Request PR5-02 Supplemental Information

AD47
NRR

cc: Regional Administrator w/attachment
USNRC – Region IV

Cooper Project Manager w/attachment
USNRC – NRR Plant Licensing Branch IV

Senior Resident Inspector w/attachment
USNRC – CNS

NPG Distribution w/o attachment

CNS Records w/attachment

Cooper Nuclear Station Relief Request PR5-02 Supplemental Information

Cooper Nuclear Station (CNS) understands that the relief being requested is applicable only to Refueling Outage 30 and not for the entirety of the fifth 10 year inservice inspection interval. Any additional period(s) outside of CNS Refueling Outage 30 would require subsequent, stand-alone, relief requests.

The specific components for which relief is being requested are listed in the tables on the next page.

Drawings describing the location of the components for which relief is being requested have also been included as part of this attachment.

For the portions of piping operated at or above reactor pressure during normal operation that are not at test pressure, defense-in-depth for detection of possible through-wall leakage is provided by the following:

- The temperature alarm subsystem of leak detection system is comprised of temperature sensing elements installed in the vicinity of residual heat removal (RHR), reactor water cleanup (RWCU), high pressure coolant injection (HPCI), reactor core isolation cooling (RCIC), and main steam lines (MS), and temperature switches that actuate annunciators in the Control Room. It is designed to detect leaks in the major steam piping system, especially in remote or enclosed areas such as the steam tunnel. If a steam or water leak occurs, the temperature element would sense a rise in ambient temperature and cause an alarm in the Control Room. In addition, the continuous temperature signals are transmitted to Plant Management Information System (PMIS) for Safety Parameter Display System (SPDS) display.
- Control Room operators monitor Main Steam Tunnel temperatures twice per shift (every six hours) and record in Operations Log when temperature exceeds 160 F.
- Drywell unidentified and identified leak rates are monitored in accordance with Operations daily surveillance log every 8 hours.

CNS PR5-02 Lists of Components

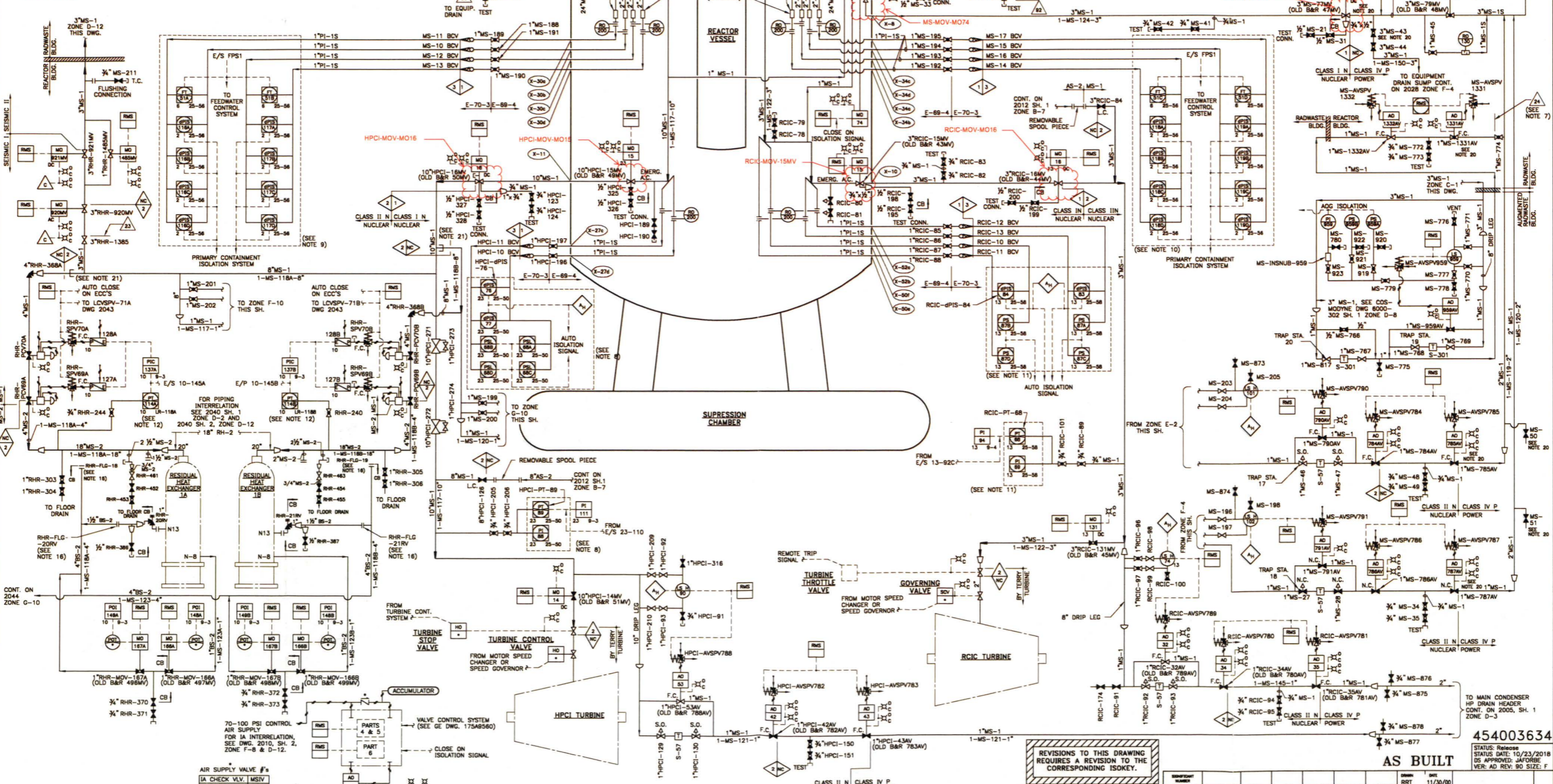
Valves not in position required for normal reactor startup:

Valve	Description	Position Required for Normal Reactor Startup	Position During System Leakage Test
RF-CV-13CV	Outboard Feedwater Check Valve	Open	Closed
RF-CV-14CV	Inboard Feedwater Check Valve	Open	Closed
RF-CV-15CV	Outboard Feedwater Check Valve	Open	Closed
MS-AOV-AO86A	Outboard Main Steam Isolation Valve	Open	Closed
MS-AOV-AO86B	Outboard Main Steam Isolation Valve	Open	Closed
MS-AOV-AO86C	Outboard Main Steam Isolation Valve	Open	Closed
MS-AOV-AO86D	Outboard Main Steam Isolation Valve	Open	Closed
HPCI-MOV-MO15	Inboard HPCI Steam Supply	Open	Closed
HPCI-MOV-MO16	Outboard HPCI Steam Supply	Open	Closed
RCIC-MOV-MO15	Inboard RCIC Steam Supply	Open	Closed
RCIC-MOV-MO16	Outboard RCIC Steam Supply	Open	Closed

Other valves discussed in Relief Request:

Valve	Description	Position Required for Normal Reactor Startup	Position During System Leakage Test
MS-MOV-MO74	Inboard Main Steam Drain Valve	Open/Closed	Open
MS-MOV-MO77	Outboard Main Steam Drain Valve	Open/Closed	Open/Closed
HPCI-CV-29CV	HPCI Injection Check Valve	Closed	Closed
RF-CV-16CV	Inboard Feedwater Check Valve	Open	Open

- NOTES:
1. PRESSURE SENSING LINES UP TO AND INCLUDING ROOT VALVES SHALL BE FURNISHED AND INSTALLED UNDER CONTRACT E-69-4.
 2. DELETED.
 3. ALL "MS-1" PIPING SHOWN HEREON IS CLASS II IN NUCLEAR CLASS III IN NUCLEAR AND CLASS IV POWER CLASSIFICATION WITHIN THE LIMITS SHOWN HEREON. ALL "MS-2" & "MS-3" PIPING SHOWN HEREON IS CLASS III IN NUCLEAR CLASSIFICATION.
 4. SP44-4D TO BE INSTALLED CLOSED TO AO-86.
 5. HIGH POINT VENTS & LOW POINT DRAINS ARE NOT SHOWN.
 6. DELETED.
 7. Δ 'S WHERE SHOWN WITH NUMBERS REPRESENT POINTS OF CONNECTION TO EXISTING SYSTEM. E-73-58 SPECIFICATION DEFINES WORK FROM THIS POINT.
 8. REF. G.E. DWG 11506011 SH. 2 FOR INSTR. PIPING AND VALVE INSTALLATION AT INSTR. RACK 25-50 - SECTION A
 9. REF. G.E. DWG 11506014 SH. 2 FOR INSTR. PIPING AND VALVE INSTALLATION AT INSTR. RACK 25-56 - SECTION A
 10. REF. G.E. DWG 11506014 SH. 3 FOR INSTR. PIPING AND VALVE INSTALLATION AT INSTR. RACK 25-56 - SECTION B
 11. REF. G.E. DWG 11506015 SH. 2 FOR INSTR. PIPING AND VALVE INSTALLATION AT INSTR. RACK 25-58 - SECTION A
 12. REF. BURNS AND ROE DWG 1LE70-3 SH. 149 FOR INSTR. PIPING AND VALVE INSTALLATION AT INSTR. RACK LR-118A AND LR-118B.
 13. REF. BURNS AND ROE DWG 1LE70-3 SH. 121A FOR INSTR. PIPING AND VALVE INSTALLATION.
 14. DELETED.
 15. DELETED.
 16. TESTABLE FLANGES.
 17. INSTRUMENT, SAMPLE, TEST, DRAIN AND VENT LINES ARE NOT ALWAYS THE SAME CLASS AS THE MAIN LINE AND THESE BOUNDARIES ARE TOO NUMEROUS TO IDENTIFY IN THIS MANNER (SEE ISI PROGRAM BOUNDARY DESCRIPTIONS FOR DETAILS).
 18. CB IS PRIMARY CONTAINMENT BOUNDARY.
 19. WHERE LINES ARE INTERCONNECTED AND CONTINUED ON OTHER DRAWINGS, ZONE NUMBERS ARE APPROXIMATE ONLY.
 20. BOUNDARY VALVE - REF. TO CALC. NEDC 00-029, ENG. EVAL. EE 01-147 & DWG CNS-MS-43 FOR IDENTIFICATION OF THE MSIV LEAKAGE PATHWAY TO THE CONDENSER BOUNDARIES & SEISMIC QUALIFICATIONS.
 21. AN IN-LINE PIPE CAP HAS BEEN INSTALLED FOR ISOLATION OF THE RHR STEAM CONDENSING MODE SYSTEM PIPING. REF. CED 601212.



REVISIONS TO THIS DRAWING REQUIRES A REVISION TO THE CORRESPONDING ISOKEY.

NO.	DESCRIPTION	DATE	DWG
1	AS BUILT	11/30/00	2041

COOPER NUCLEAR STATION FLOW DIAGRAM REACTOR BUILDING MAIN STEAM SYSTEM

NO.	DESCRIPTION	DATE	DWG
1	AS BUILT	11/30/00	2041

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NO.	DESCRIPTION	DATE	DWG
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NO.	DESCRIPTION	DATE	DWG
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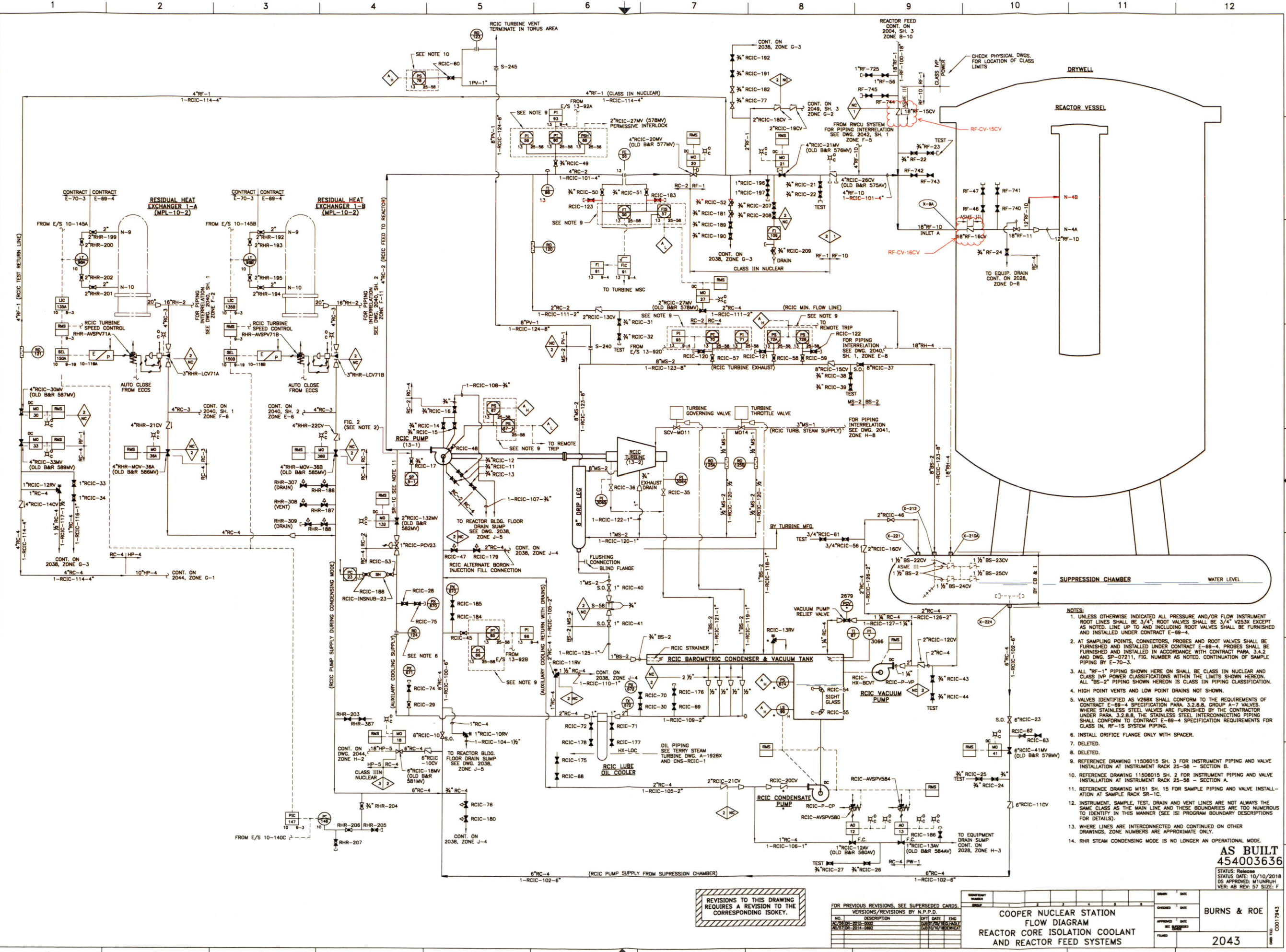
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AS BUILT

COOPER NUCLEAR STATION FLOW DIAGRAM REACTOR BUILDING MAIN STEAM SYSTEM

AS BUILT

2041



- NOTES:
1. UNLESS OTHERWISE INDICATED ALL PRESSURE AND/OR FLOW INSTRUMENT ROOT LINES SHALL BE 3/4" V25X3K. ROOT VALVES SHALL BE 3/4" V25X3K EXCEPT AS NOTED. LINE UP TO AND INCLUDING ROOT VALVES SHALL BE FURNISHED AND INSTALLED UNDER CONTRACT E-69-4.
 2. AT SAMPLING POINTS, CONNECTORS, PROBES AND ROOT VALVES SHALL BE FURNISHED AND INSTALLED UNDER CONTRACT E-69-4. PROBES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH CONTRACT PARA. 3.4.2 AND DWG. SP-07211, FIG. NUMBER AS NOTED. CONTINUATION OF SAMPLE PIPING BY E-70-3.
 3. ALL "RF-1" PIPING SHOWN HERE ON SHALL BE CLASS IIN NUCLEAR AND CLASS IVP POWER CLASSIFICATIONS WITHIN THE LIMITS SHOWN HEREON. ALL "BS-2" PIPING SHOWN HEREON IS CLASS IIN PIPING CLASSIFICATION.
 4. HIGH POINT VENTS AND LOW POINT DRAINS NOT SHOWN.
 5. VALVES IDENTIFIED AS V25X3K SHALL CONFORM TO THE REQUIREMENTS OF CONTRACT E-69-4 SPECIFICATION PARA. 3.2.6.6, GROUP A-7 VALVES. WHERE STAINLESS STEEL VALVES ARE FURNISHED BY THE CONTRACTOR UNDER PARA. 3.2.6.6, THE STAINLESS STEEL INTERCONNECTING PIPING SHALL CONFORM TO CONTRACT E-69-4 SPECIFICATION REQUIREMENTS FOR CLASS IIN, RF-15 SYSTEM PIPING.
 6. INSTALL ORIFICE FLANGE ONLY WITH SPACER.
 7. DELETED.
 8. DELETED.
 9. REFERENCE DRAWING 1150615 SH. 3 FOR INSTRUMENT PIPING AND VALVE INSTALLATION AT INSTRUMENT RACK 25-58 - SECTION B.
 10. REFERENCE DRAWING 1150615 SH. 2 FOR INSTRUMENT PIPING AND VALVE INSTALLATION AT INSTRUMENT RACK 25-58 - SECTION A.
 11. REFERENCE DRAWING M151 SH. 15 FOR SAMPLE PIPING AND VALVE INSTALLATION AT SAMPLE RACK SR-1C.
 12. INSTRUMENT, SAMPLE, TEST, DRAIN AND VENT LINES ARE NOT ALWAYS THE SAME CLASS AS THE MAIN LINE AND THESE BOUNDARIES ARE TOO NUMEROUS TO IDENTIFY IN THIS MANNER (SEE ISI PROGRAM BOUNDARY DESCRIPTIONS FOR DETAILS).
 13. WHERE LINES ARE INTERCONNECTED AND CONTINUED ON OTHER DRAWINGS, ZONE NUMBERS ARE APPROXIMATE ONLY.
 14. RHR STEAM CONDENSING MODE IS NO LONGER AN OPERATIONAL MODE.

AS BUILT
454003636
 STATUS: Release
 STATUS DATE: 10/10/2018
 DS APPROVED: M1UNRUH
 VER: AB REV: 57 SIZE: F

REVISIONS TO THIS DRAWING
 REQUIRES A REVISION TO THE
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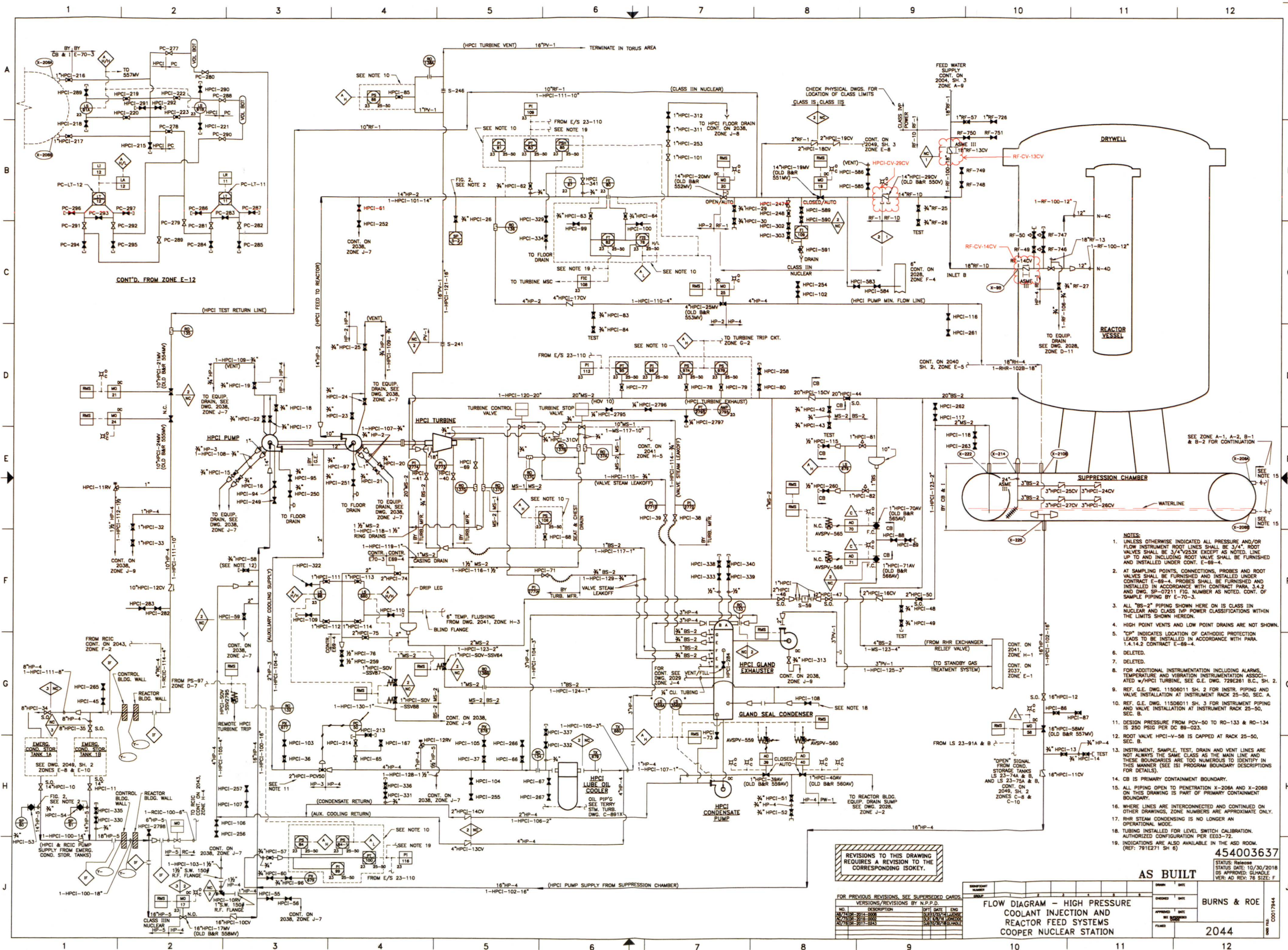
FOR PREVIOUS REVISIONS, SEE SUPERSEDED CARDS.
 VERSIONS/REVISIONS BY N.P.P.D.

NO.	DESCRIPTION	DATE	BY
1	AS BUILT	10/10/2018	M1UNRUH
2	AS BUILT	10/10/2018	M1UNRUH
3	AS BUILT	10/10/2018	M1UNRUH

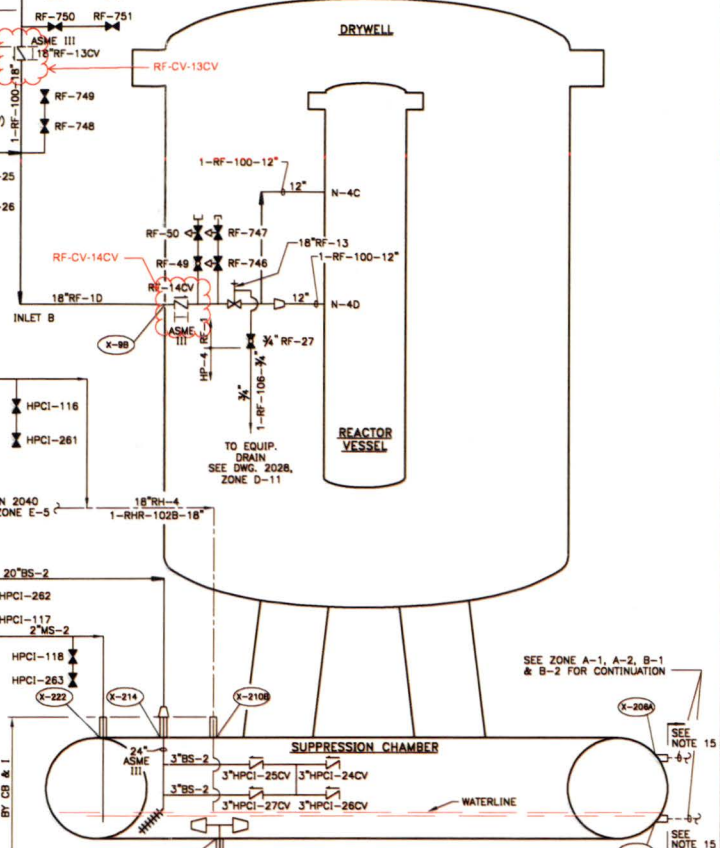
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2	10/10/2018	M1UNRUH		
3	10/10/2018	M1UNRUH		

COOPER NUCLEAR STATION
 FLOW DIAGRAM
 REACTOR CORE ISOLATION COOLANT
 AND REACTOR FEED SYSTEMS

BURNS & ROE
 2043



CONT'D. FROM ZONE E-12



- NOTES:
- UNLESS OTHERWISE INDICATED ALL PRESSURE AND/OR FLOW INSTRUMENT ROOT LINES SHALL BE 3/4" ROOT VALVES SHALL BE 3/4"X253X EXCEPT AS NOTED. LINE UP TO AND INCLUDING ROOT VALVE SHALL BE FURNISHED AND INSTALLED UNDER CONT. E-69-4.
 - AT SAMPLING POINTS, CONNECTIONS, PROBES AND ROOT VALVES SHALL BE FURNISHED AND INSTALLED UNDER CONTRACT PARA. 3.4.2 AND DWG. SP-07211 FIG. NUMBER AS NOTED. CONT. OF SAMPLE PIPING BY E-70-3.
 - ALL "BS-2" PIPING SHOWN HERE ON IS CLASS IIN NUCLEAR AND CLASS IIP POWER CLASSIFICATIONS WITHIN THE LIMITS SHOWN HEREON.
 - HIGH POINT VENTS AND LOW POINT DRAINS ARE NOT SHOWN.
 - "CP" INDICATES LOCATION OF CATHODIC PROTECTION LEADS TO BE INSTALLED IN ACCORDANCE WITH PARA. 1.4.14.2 CONTRACT E-69-4.
 - DELETED.
 - DELETED.
 - FOR ADDITIONAL INSTRUMENTATION INCLUDING ALARMS, TEMPERATURE AND VIBRATION INSTRUMENTATION ASSOCIATED WITH HPCI TURBINE, SEE G.E. DWG. 728281 S.C. SH. 2.
 - REF. G.E. DWG. 11506011 SH. 2 FOR INSTR. PIPING AND VALVE INSTALLATION AT INSTRUMENT RACK 25-50, SEC. A.
 - REF. G.E. DWG. 11506011 SH. 3 FOR INSTRUMENT PIPING AND VALVE INSTALLATION AT INSTRUMENT RACK 25-50, SEC. B.
 - DESIGN PRESSURE FROM POV-50 TO RD-133 & RD-134 IS 250 PSIG PER DC 88-023.
 - ROOT VALVE HPCI-V-58 IS CAPPED AT RACK 25-50, SEC. B.
 - INSTRUMENT, SAMPLE, TEST, DRAIN AND VENT LINES ARE NOT ALWAYS THE SAME CLASS AS THE MAIN LINE AND THESE BOUNDARIES ARE TOO NUMEROUS TO IDENTIFY IN THIS MANNER (SEE ISI PROGRAM BOUNDARY DESCRIPTIONS FOR DETAILS).
 - CB IS PRIMARY CONTAINMENT BOUNDARY.
 - ALL PIPING OPEN TO PENETRATION X-208A AND X-208B ON THIS DRAWING IS PART OF PRIMARY CONTAINMENT BOUNDARY.
 - WHERE LINES ARE INTERCONNECTED AND CONTINUED ON OTHER DRAWINGS, ZONE NUMBERS ARE APPROXIMATE ONLY.
 - RHR STEAM CONDENSING IS NO LONGER AN OPERATIONAL MODE.
 - TUBING INSTALLED FOR LEVEL SWITCH CALIBRATION. AUTHORIZED CONFIGURATION PER E03-72.
 - INDICATIONS ARE ALSO AVAILABLE IN THE ASD ROOM. (REF: 791E271 SH 8)

REVISIONS TO THIS DRAWING REQUIRES A REVISION TO THE CORRESPONDING ISOKEY.

NO.	DESCRIPTION	DATE	ENG.
1	AS BUILT	10/30/2018	GLW/LE
2	REVISED	08/20/2018	GLW/LE
3	REVISED	08/20/2018	GLW/LE

FLOW DIAGRAM - HIGH PRESSURE COOLANT INJECTION AND REACTOR FEED SYSTEMS COOPER NUCLEAR STATION

454003637
 AS BUILT
 STATUS DATE: 10/30/2018
 DESIGNED BY: GLW/LE
 VER. NO. REV. 78 SIZE: F
 BURNS & ROE
 2044