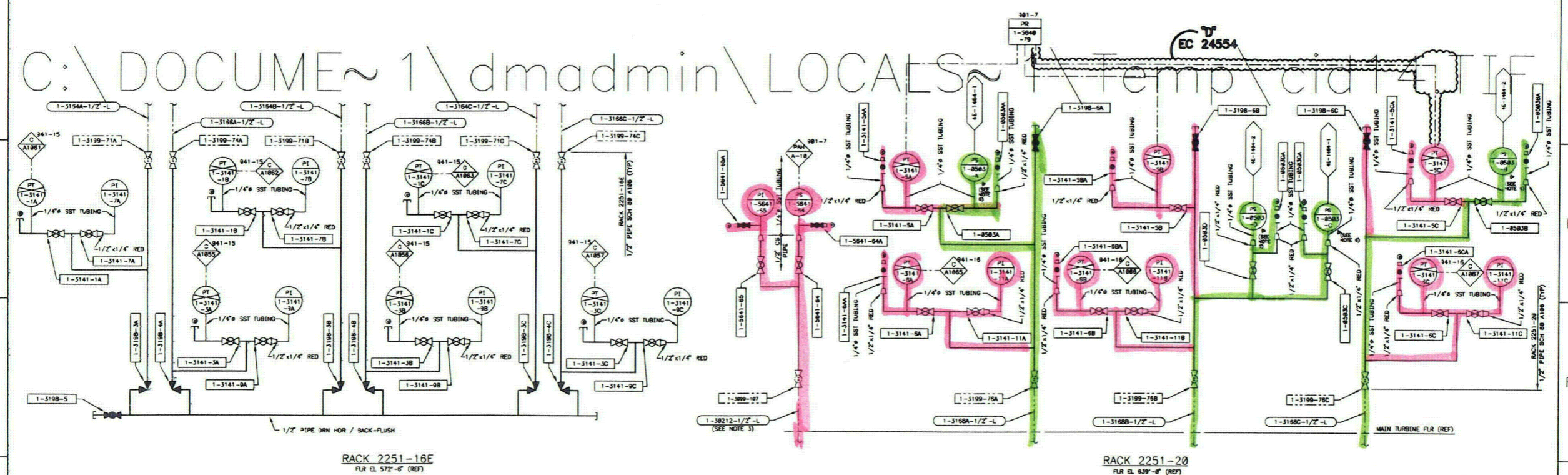
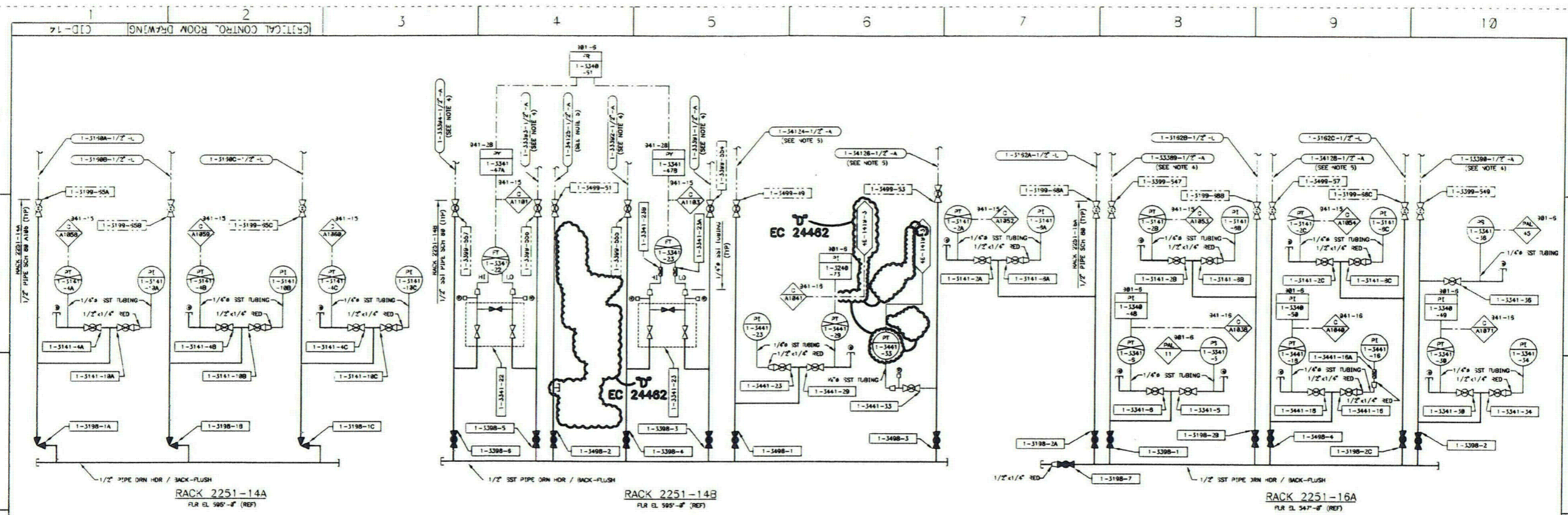


REV	DATE	DESCRIPTION	PREP.	REV.	APPR.
8	08/09/02	INITIAL ISSUE	SP	JSL	MAH

Exelon Nuclear
 Quad Cities Station 4
 LICENSE RENEWAL BOUNDARY DIAGRAM OF CONTROL & INSTRUMENTATION MAIN STEAM SYSTEM
 LR-QDC-CID-13-2



NOTES:
 1. THE ORIGINAL INSTALLATION OF INSTRUMENTS AND CONTROL PIPING WAS PER SECTION 9 OF SPECIFICATION 2-2338.
 2. FOR P&ID CONTINUATION SEE M-14 UNLESS OTHERWISE NOTED.
 3. CONTINUED FROM P&ID M-13 SH 2.
 4. CONTINUED FROM P&ID M-15.
 5. CONTINUED FROM P&ID M-17.
 6. PSL 1-8503-A THRU PSL 1-8503-D MOUNTED & ELECTRICALLY CONNECTED SAFETY RELATED. SENSING LINES ARE NON-SAFETY RELATED.

- DMG REFERENCES:
 1. M-13 SH 2 DIAGRAM OF MAIN STEAM PIPING.
 2. M-325 SH 1 & 3.
 3. 4E-1728 R/O MIN CONT PNL 901-7.
 4. 4E-1464-1 & 2 S/D REACTOR PROTECTION SYSTEM CHANNEL A & B TRIP AUX RELAYS.
 5. 4E-1370 S/D CONDENSATE PUMPS.
 6. 4E-1394 R/F FEED PUMP & AUX OIL PUMP PART 1.
 7. 4E-1502 WINDOW ENGRAVING WORK ANNUAL PNL'S 901-5, -8 & 912-1.
 8. 4E-1503 WINDOW ENGRAVING WORK ANNUAL PNL'S 901-5, -8 & 912-1.
 9. 4E-1873 INSTRUMENT SYSTEM WIRING TABULATION.
 10. 4E-1874 INSTRUMENT SYSTEM WIRING TABULATION.
 11. 4E-1881 INSTRUMENT SYSTEM WIRING TABULATION.
 12. 4E-1887 INSTRUMENT SYSTEM WIRING TABULATION.
 13. 4E-1891 INSTRUMENT SYSTEM WIRING TABULATION.
 14. 4E-1575AU SCHEMATIC DIAGRAM MCB ANNUNCIATOR PANEL 901-5 PART 4 OF 8

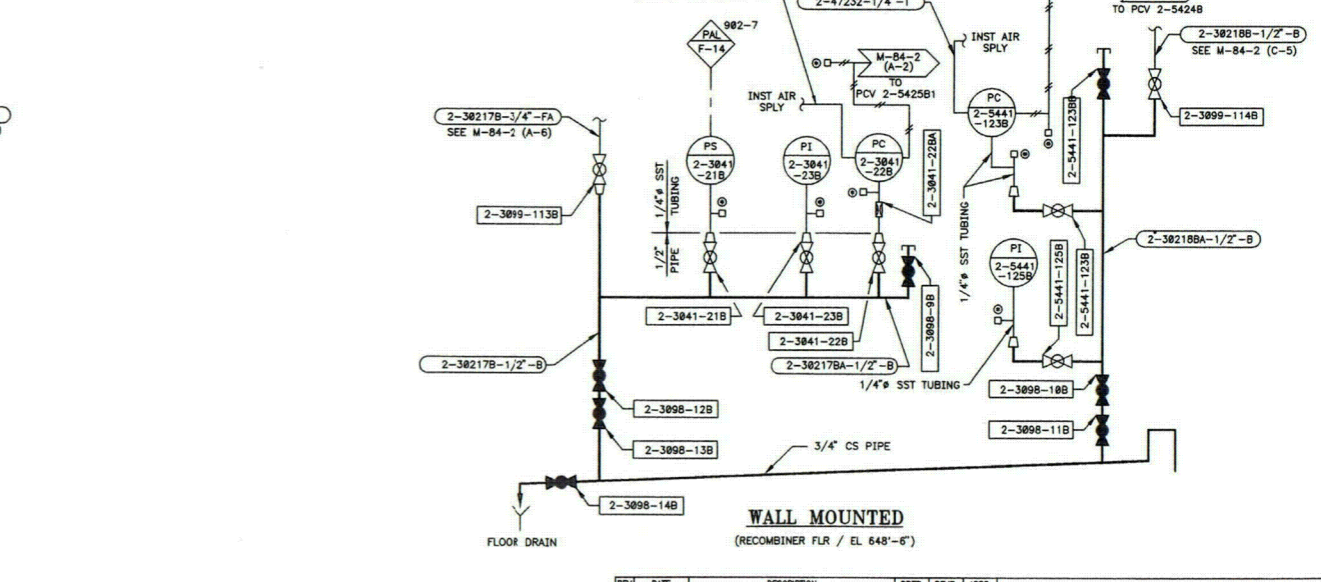
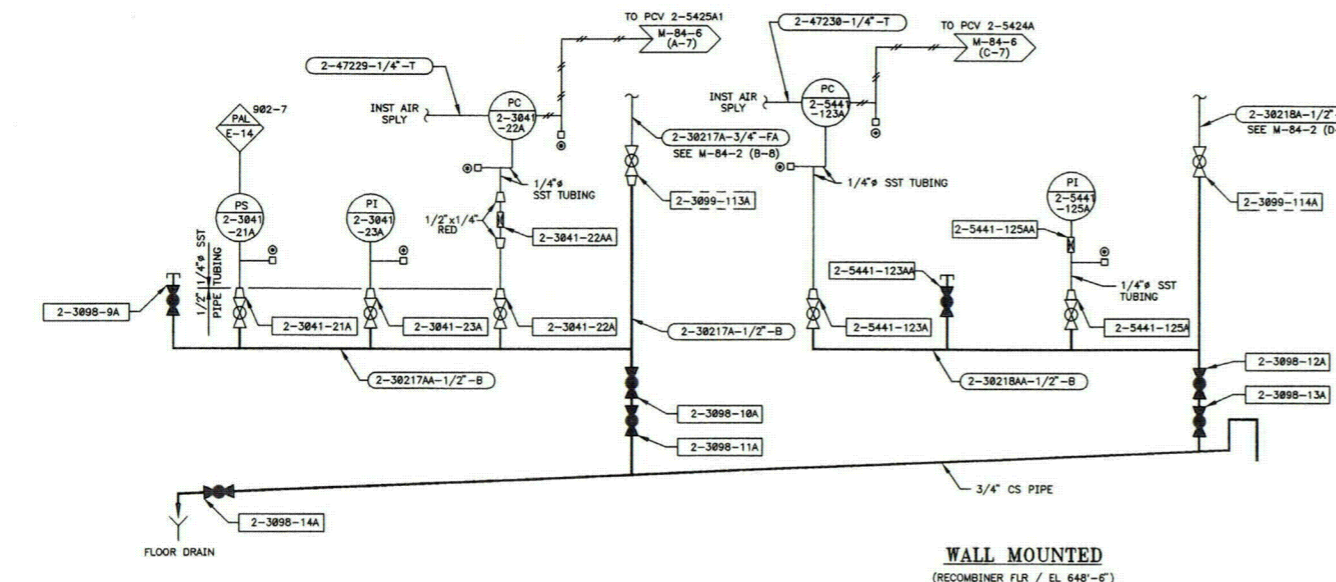
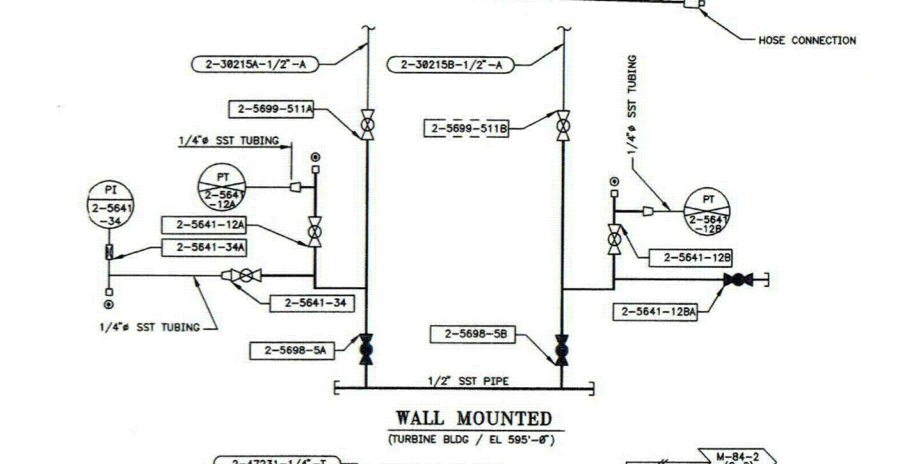
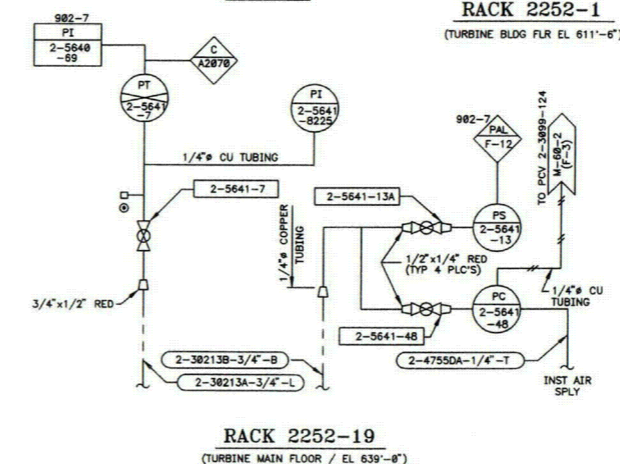
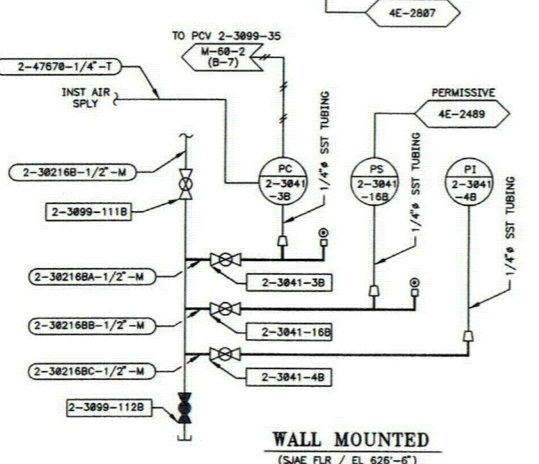
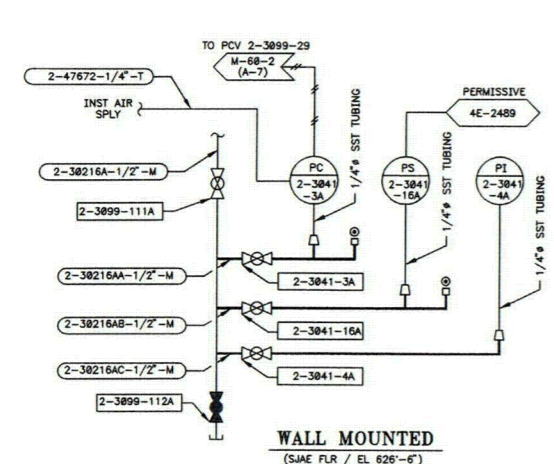
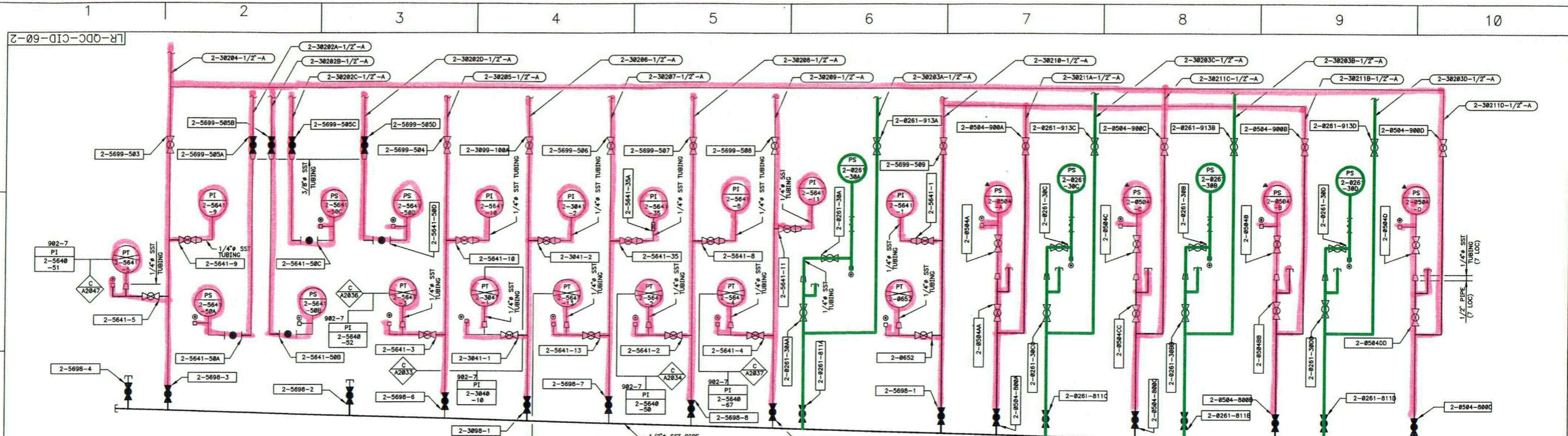
LEGEND
 @ - INSTRUMENT CALIBRATION POINT

REV	DATE	DESCRIPTION	REP	REV	APPR
D	11/25/02	FOR RECORD PER EC DOP 24482 AND EC DOP 24554			

NUCLEAR SAFETY RELATED EQUIPMENT IS SHOWN ON THIS DRAWING	SCALE: NONE	DATE: 10/15/02	SHEET NUMBER: CID-14
EXELON	NUCLEAR SAFETY RELATED EQUIPMENT IS SHOWN ON THIS DRAWING	DATE: 10/15/02	SHEET NUMBER: CID-14
Quad Cities Station 4 Unit 1		DRN BY: CS02	SIZE: F M06

License Renewal Boundary Diagram of

CONTROL & INSTRUMENTATION DIAGRAM OF EXTRACTION SYSTEM
 LR-0DC-2
 CID-14



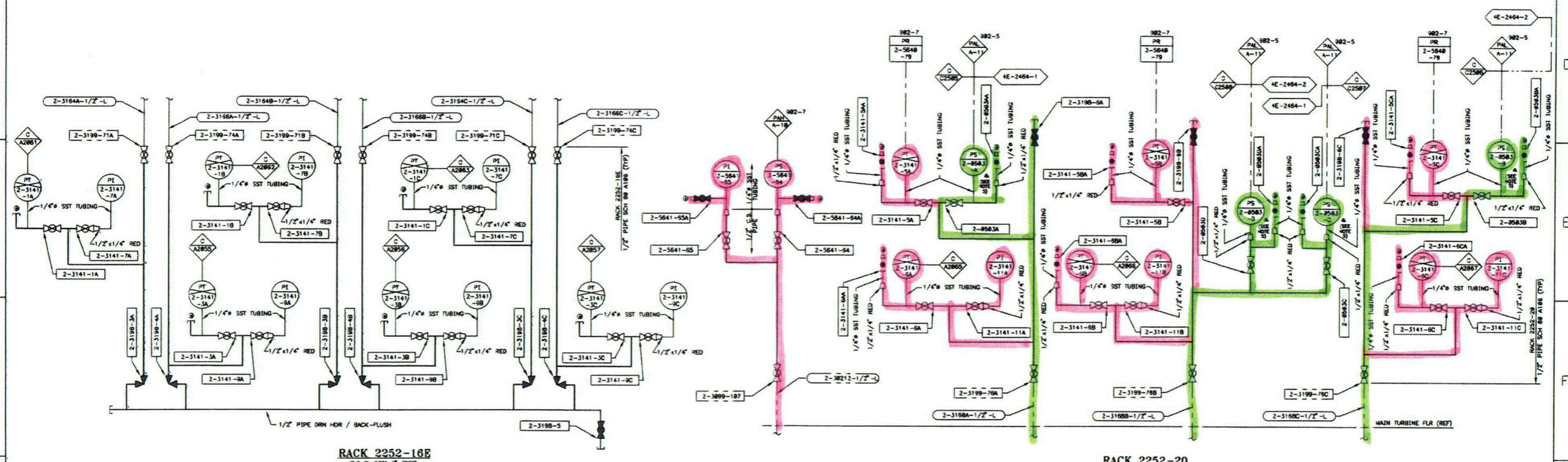
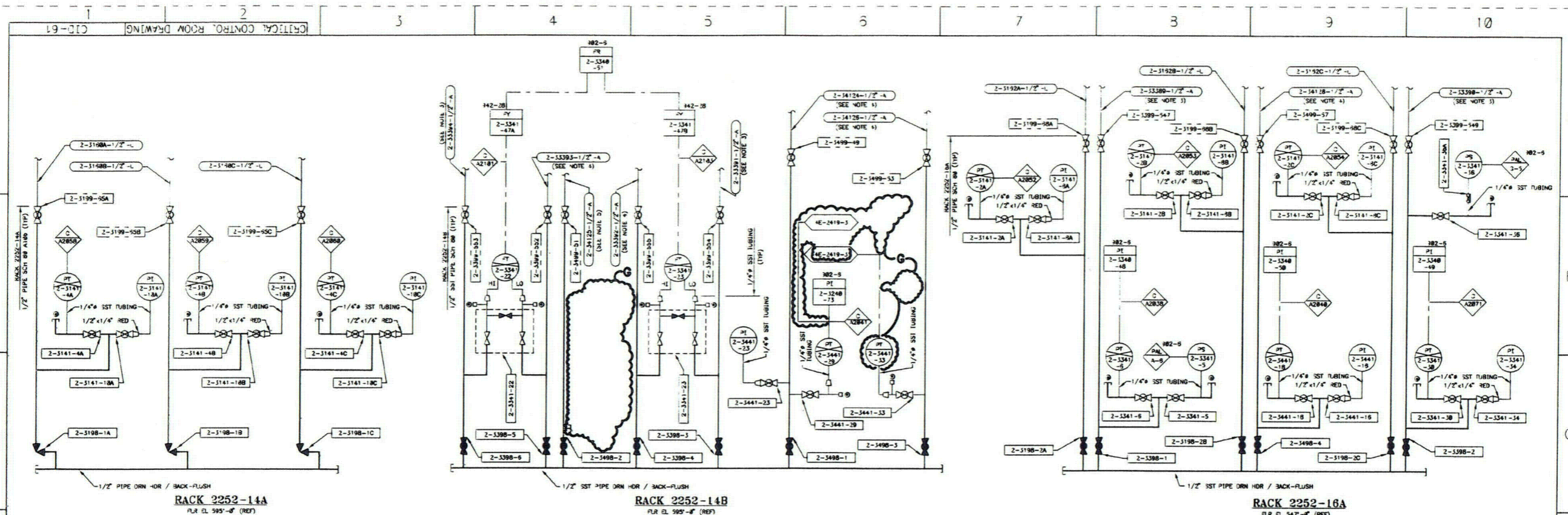
— IN SCOPE COMPONENTS
 PER 54.4(a)(1), AND 54.4(a)(3)
— OUT OF SCOPE COMPONENTS

REV	DATE	DESCRIPTION	PREP.	REV.	APPR.
8	07/16/02	INITIAL ISSUE	SP	JSL	MAH

LICENSE RENEWAL BOUNDARY
 DIAGRAM OF
 MAIN STEAM SYSTEM

Exelon
 Nuclear
 Quad Cities Station 4

LR-QDC-CID-60-2



- NOTES:**
1. THE ORIGINAL INSTALLATION OF INSTRUMENTS AND CONTROL PIPING WAS PER SECTION 9 OF SPECIFICATION R-2330.
 2. FOR PAID CONTINUATION SEE M-51 UNLESS OTHERWISE NOTED.
 3. CONTINUED FROM PAID M-83.
 4. CONTINUED FROM PAID M-84.
 5. PS 2-8503A THRU PS 2-8503D MOUNTED & ELECTRICALLY CONNECTED SAFETY RELATED. SENSING LINES ARE NSR.

- REFERENCES:**
1. M-68 SH 2 DIAGRAM OF MAIN STEAM PIPING.
 2. M-327 SH 1 & 3.
 3. 4E-2378 SCHEMATIC CONTROL DIAGRAM CONDENSATE PUMPS.
 4. 4E-2384 SCHEMATIC CONTROL DIAGRAM REACTOR FEED PUMPS & AUX OIL PUMP PT1.
 5. 4E-2578C S/D CONTROL ROOM ANNUNCIATOR PANEL 302-5 PT 6 OF 3.
 6. 4E-2578H S/D CONTROL ROOM ANNUNCIATOR PANEL 302-5 PT 3 OF 4.
 7. 4E-2494 SH 1 & 2 S/D REACTOR PROTECTION SYSTEM CHANNEL, 4" & 2" TRIP AUX RELAYS.
 8. 4E-2488 SH 1, 2, & 3 S/D REACTOR PROTECTION SYSTEM ALARMS & COMPUTER INPUTS.
 9. 4E-2073 INSTRUMENT SYSTEM WIRING TABULATION.
 10. 4E-2887 INSTRUMENT SYSTEM WIRING TABULATION.
 11. 4E-2891 INSTRUMENT SYSTEM WIRING TABULATION.
 12. 4E-2881 INSTRUMENT SYSTEM WIRING TABULATION.
 13. 4E-2874 INSTRUMENT SYSTEM WIRING TABULATION.
 14. 4E-2728 W/D MAIN CONTROL PANEL, 302-7.
 15. 4E-2582 WINDOW ENGRAVING MCR ANNUNCIATOR PANELS 302-5 & 3.
 16. 4E-2583 WINDOW ENGRAVING MCR ANNUNCIATOR PANELS 302-7 & 8.
 17. 4E-2893 INSTRUMENT SYSTEM WIRING TABULATION.

LEGEND:
 @ - INSTRUMENT CALIBRATION POINT

License Renewal Boundary Drawing of

CONTROL & INSTRUMENTATION
 DIAGRAM OF EXTRACTION
 STEAM SYSTEM
 LR-00C-2
 CID-61

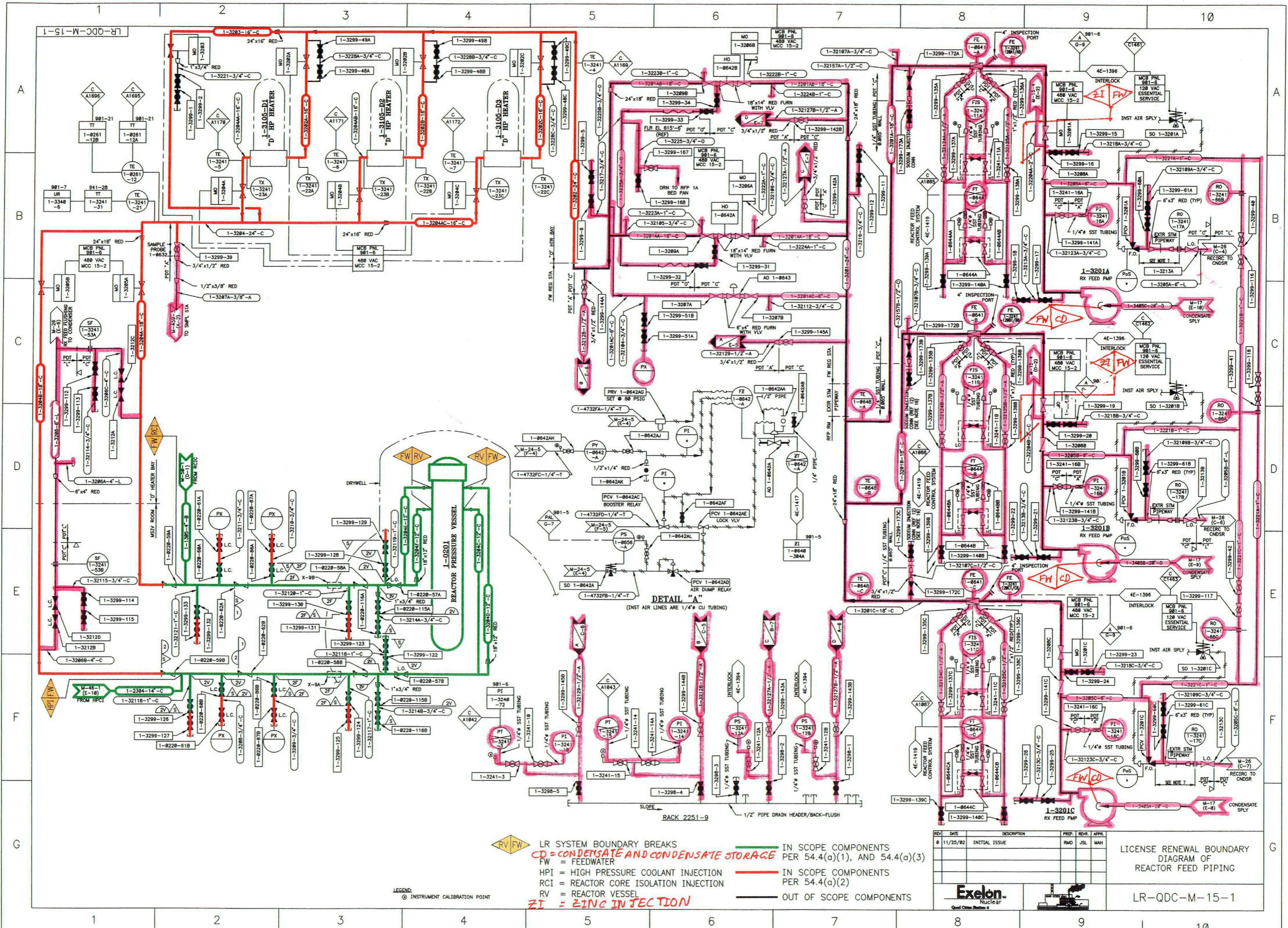
REV	DATE	DESCRIPTION	PREP	REV	APPR
F	06/19/01	FOR RECORD PER EC 8000331870	MDH	CLH	SNW
D	03/01/02	FOR RECORD PER EC DCP 24461	HPF	AVB	RMS
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Exelon Nuclear
 Quad Cities Station 4 Unit 2

NUCLEAR SAFETY RELATED
 EQUIPMENT IS SHOWN
 ON THIS DRAWING

SCALE: NONE
 DATE: 06/06/01
 DRAWN BY: M.HAMPREY
 ORG. BY: S040

SHEET NUMBER: M06
 SIZE: F
 CRITICAL CONTROL ROOM DRAWING

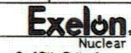


LR SYSTEM BOUNDARY BREAKS
 CD = CONDENSATE AND CONDENSATE STORAGE
 FW = FEEDWATER
 HPI = HIGH PRESSURE COOLANT INJECTION
 RCI = REACTOR CORE ISOLATION INJECTION
 RV = REACTOR VESSEL
 ZI = ZINC INJECTION

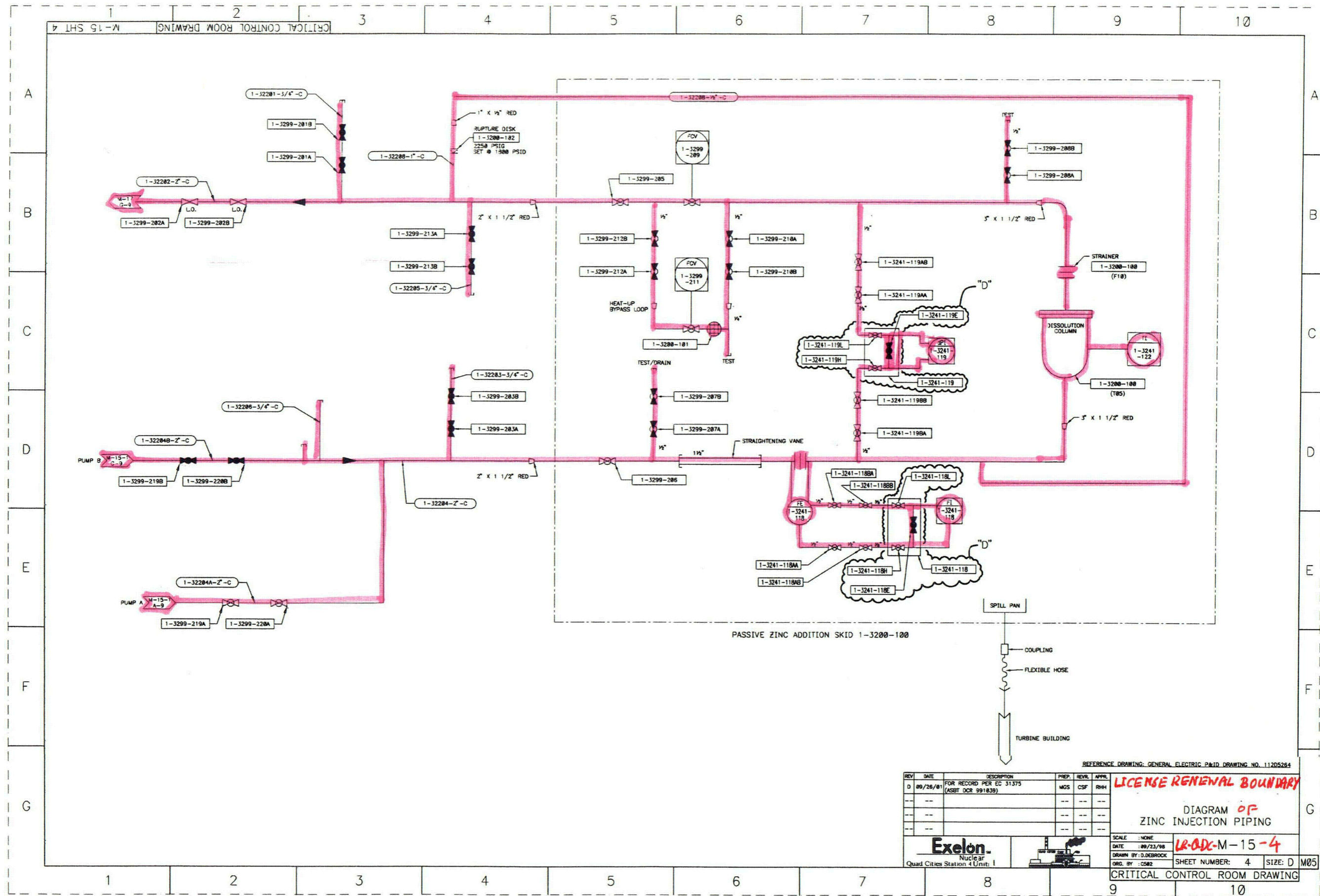
IN SCOPE COMPONENTS PER 54.4(a)(1), AND 54.4(a)(3)
 IN SCOPE COMPONENTS PER 54.4(a)(2)
 OUT OF SCOPE COMPONENTS

REV	DATE	DESCRIPTION	PREP	REV	APPR
0	11/25/02	INITIAL ISSUE	RMD	JSL	MAH

LICENSE RENEWAL BOUNDARY DIAGRAM OF REACTOR FEED PIPING



LR-QDC-M-15-1



REFERENCE DRAWING: GENERAL ELECTRIC P&ID DRAWING NO. 11205264

REV	DATE	DESCRIPTION	PREP.	REVL.	APPR.
D	09/26/01	FOR RECORD PER EC 31375 (ASBT DCR 991839)	MGS	CSF	RHM
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LICENSE RENEWAL BOUNDARY

DIAGRAM OF ZINC INJECTION PIPING

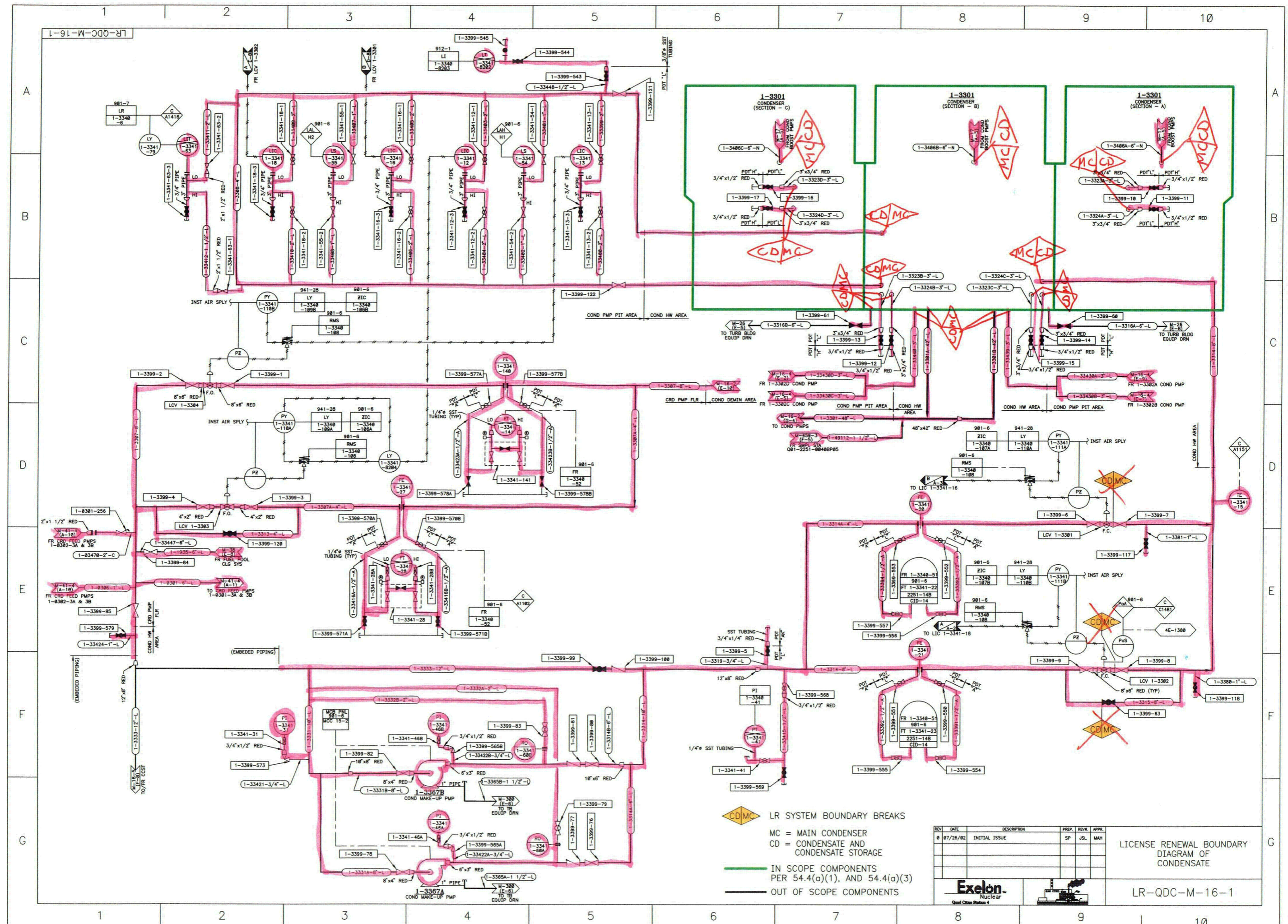


SCALE: NONE
 DATE: 09/23/98
 DRAWN BY: D.DEBROCK
 ORG. BY: CS82

LR-DC-M-15-4

SHEET NUMBER: 4 SIZE: D M05

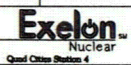
CRITICAL CONTROL ROOM DRAWING



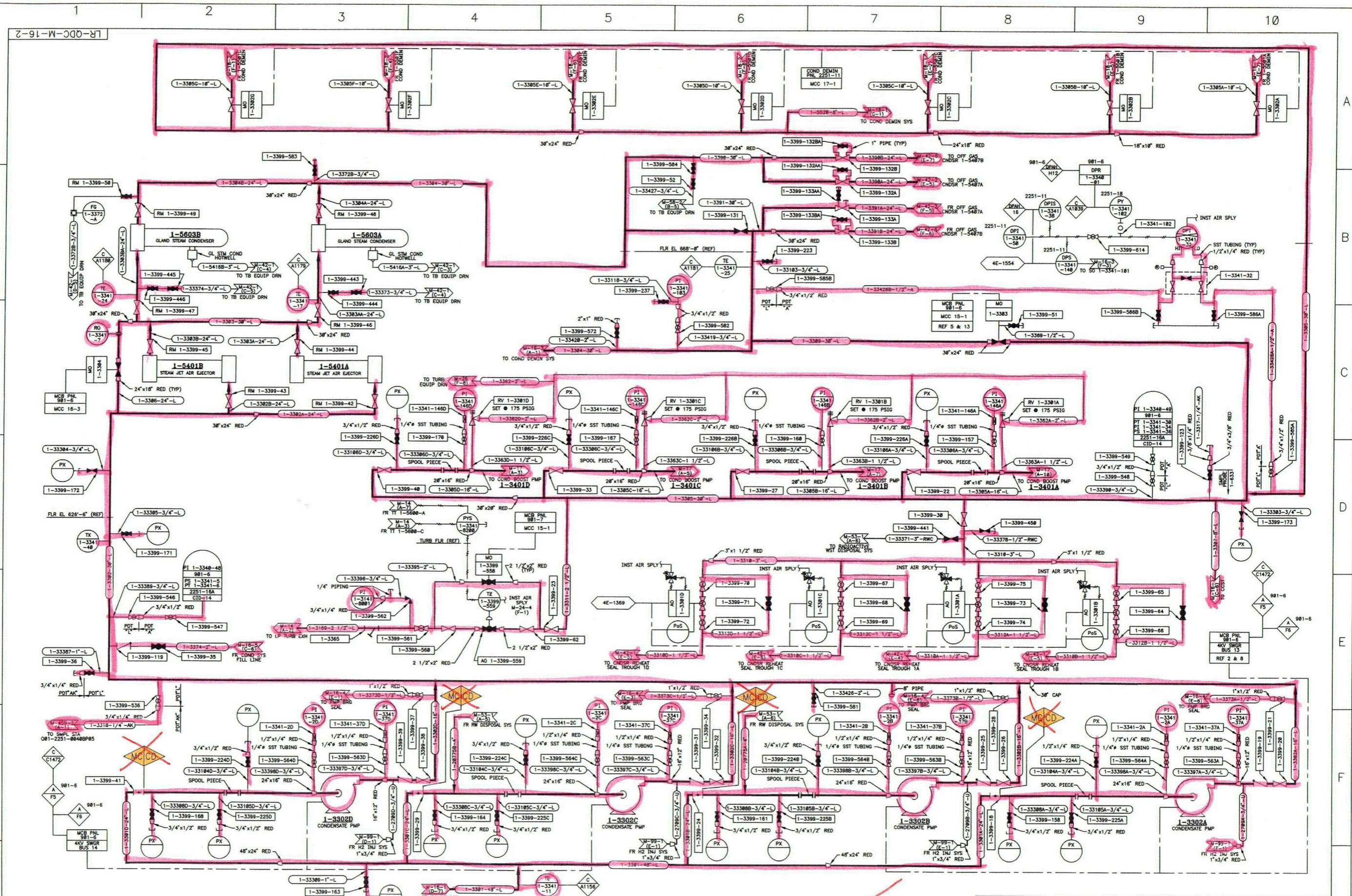
LR SYSTEM BOUNDARY BREAKS
 MC = MAIN CONDENSER
 CD = CONDENSATE AND CONDENSATE STORAGE
 — IN SCOPE COMPONENTS PER 54.4(a)(1), AND 54.4(a)(3)
 — OUT OF SCOPE COMPONENTS

REV	DATE	DESCRIPTION	PREP.	REVR.	APPR.
0	07/26/02	INITIAL ISSUE	SP	JSL	MAH

LICENSE RENEWAL BOUNDARY DIAGRAM OF CONDENSATE



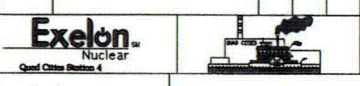
LR-QDC-M-16-1

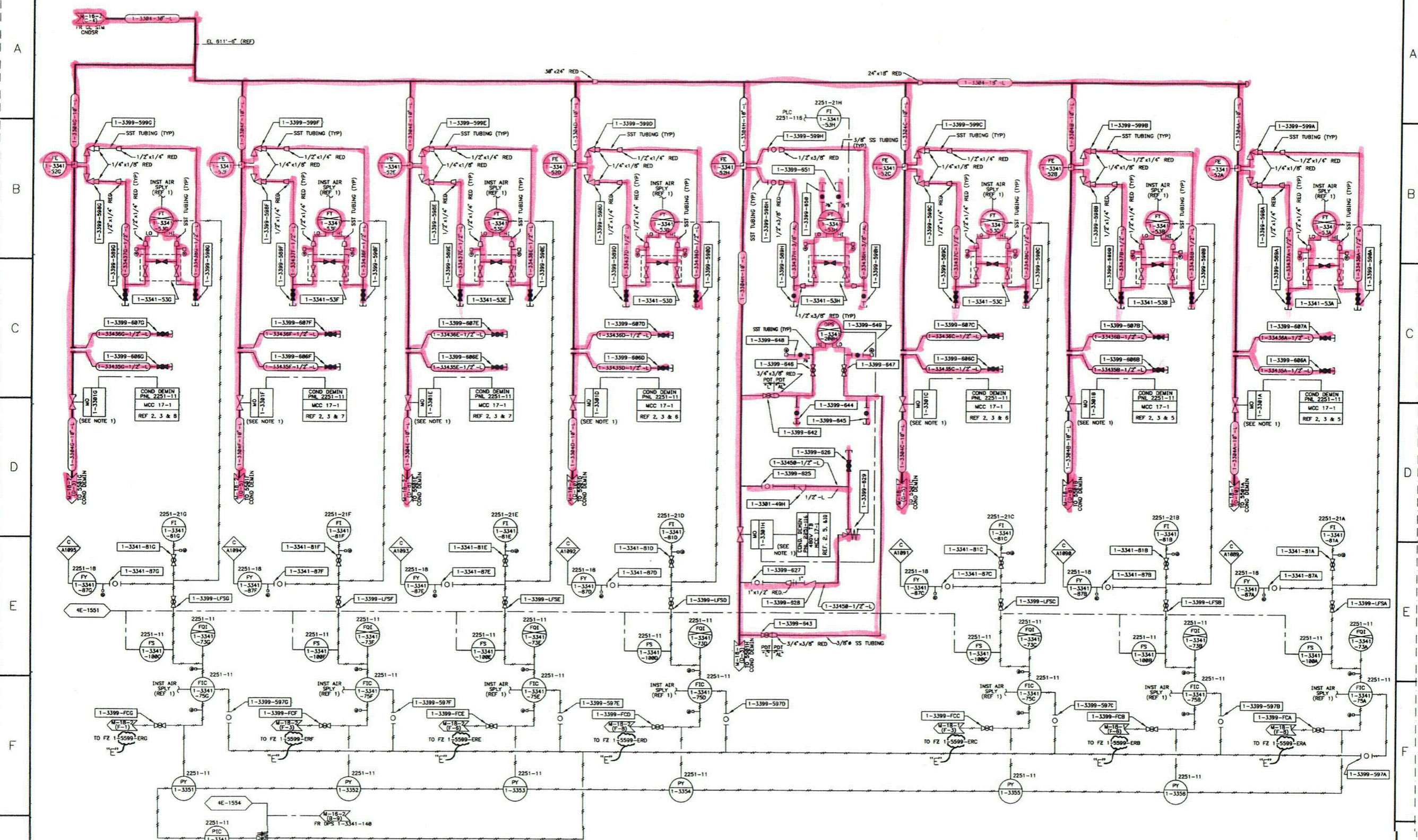


LR SYSTEM BOUNDARY BREAKS
 CD = CONDENSATE AND CONDENSATE PIPE STORAGE
 MC = MAIN CONDENSER
 OUT OF SCOPE COMPONENTS

REV	DATE	DESCRIPTION	PREP	REV	APPR
0	08/24/02	INITIAL ISSUE	RMD	JSL	MAH

LICENSE RENEWAL BOUNDARY DIAGRAM OF CONDENSATE PIPING
 LR-QDC-M-16-2





NOTES:
 1. VALVES MO 1-3381A THRU G WILL CARRY AN ADDITIONAL DESIGNATOR ON THE MANUFACTURER'S VALVE SEQUENCE CHARTS AND OPERATING INSTRUCTIONS. THE MANUFACTURER'S ADDITIONAL DESIGNATOR WILL BE A#-A#.

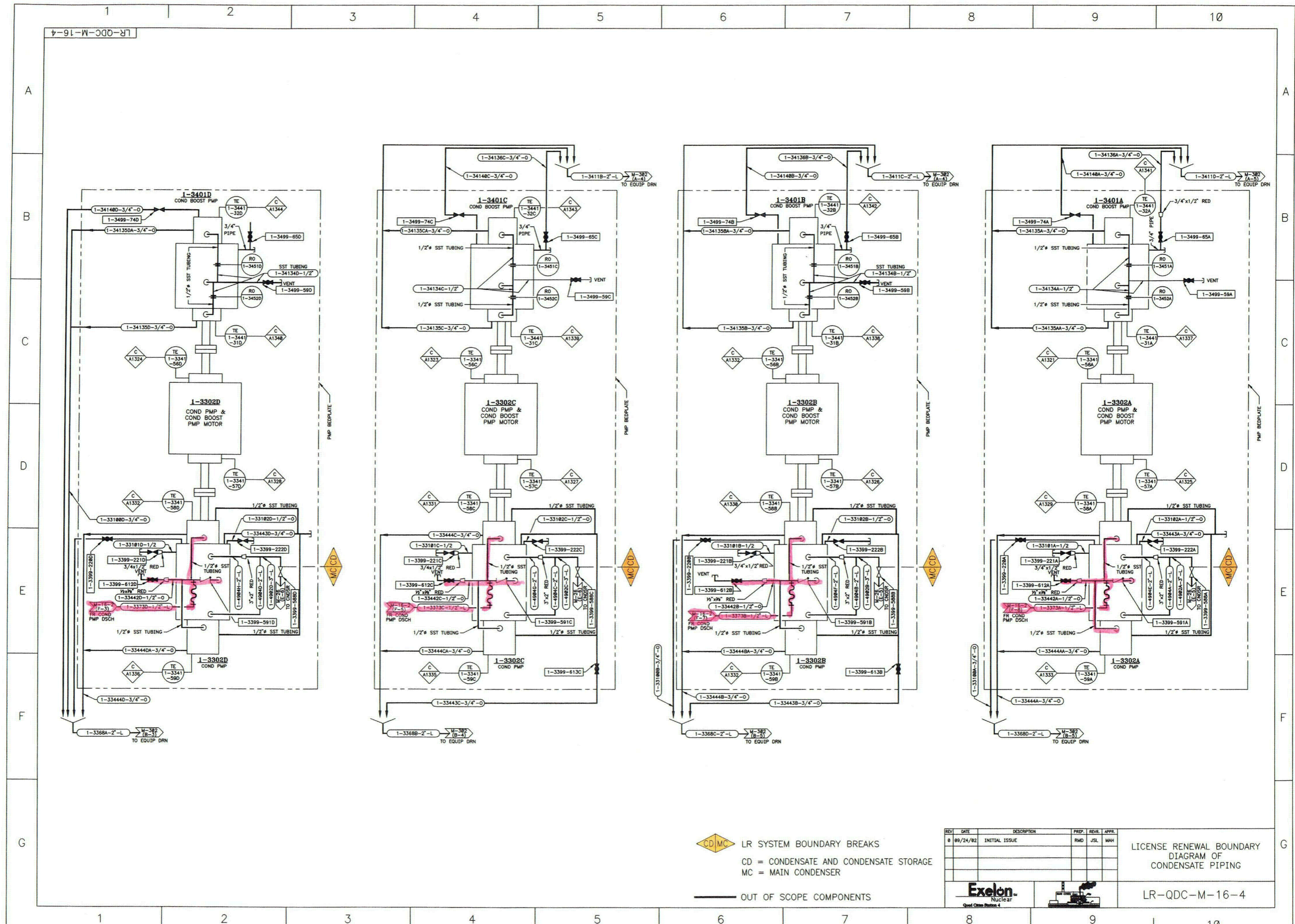
REFERENCES:
 1. M-24 SH 1 DIAGRAM OF INSTRUMENT AIR PIPING.
 2. 4E-1389 K/D 489V TB MCC 17-1 & 17-2.
 3. 4E-1551 S/D COND DEMIN PNL 2251-11.
 4. 4E-1554 S/D COND DEMIN PNL 2251-11.
 5. 4E-1678A WIRING & S/D TB 489V MCC 17-1.
 6. 4E-1678B WIRING & S/D TB 489V MCC 17-1.
 7. 4E-1678C WIRING & S/D TB 489V MCC 17-1.
 8. 4E-1678D WIRING & S/D TB 489V MCC 17-1.
 9. 4E-1875 INST SYS WIRING TAB.



REV	DATE	DESCRIPTION	PREP	REVL	APPR
E	---	FOR RECORD PER EC DCR 344738	EDSF	EDSF	EDSF
---	---	---	---	---	---
---	---	---	---	---	---
---	---	---	---	---	---

LICENSE RENEWAL
BOUNDARY
 DIAGRAM OF
 CONDENSATE PIPING
LR-QDC
SM-16-3
 SCALE: NONE
 DATE: 07/25/01
 DRAWN BY: STONEMAN
 ORG. BY: CS&E
 SHEET NUMBER: 3 SIZE: F MO5
 CRITICAL CONTROL ROOM DRAWING

Exelon Nuclear
 Quad Cities Station 4 Unit-1

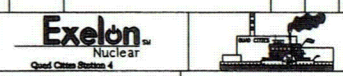
INSTRUMENT CALIBRATION POINT
 1/4" OD COPPER TUBING



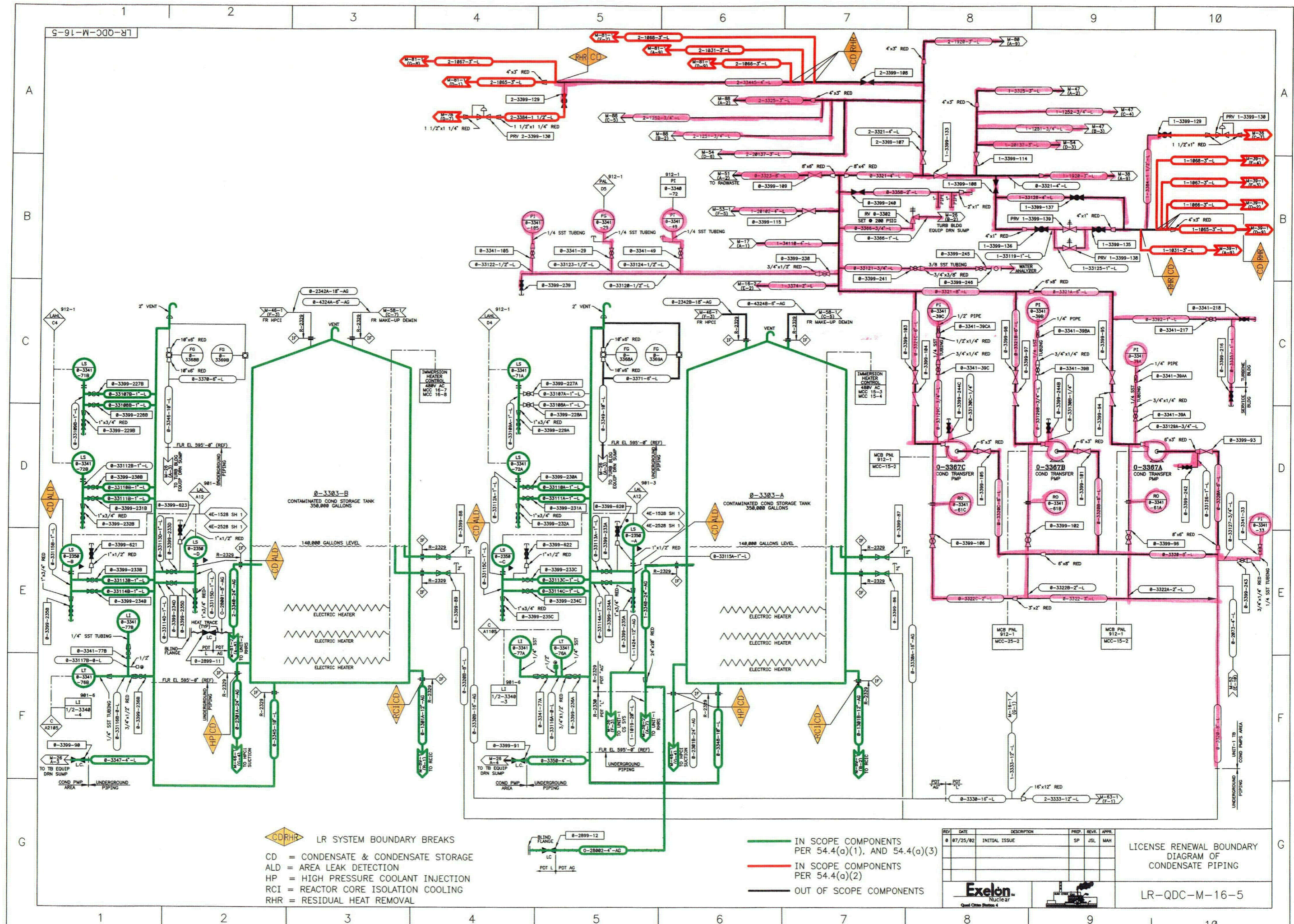
 LR SYSTEM BOUNDARY BREAKS
 CD = CONDENSATE AND CONDENSATE STORAGE
 MC = MAIN CONDENSER
 OUT OF SCOPE COMPONENTS

REV	DATE	DESCRIPTION	PREP.	REV.	APPR.
0	09/24/02	INITIAL ISSUE	RMD	JSL	MAH

LICENSE RENEWAL BOUNDARY
DIAGRAM OF
CONDENSATE PIPING



LR-QDC-M-16-4

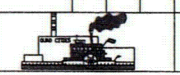
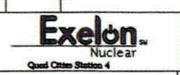


CD/RHR LR SYSTEM BOUNDARY BREAKS
 CD = CONDENSATE & CONDENSATE STORAGE
 ALD = AREA LEAK DETECTION
 HP = HIGH PRESSURE COOLANT INJECTION
 RCI = REACTOR CORE ISOLATION COOLING
 RHR = RESIDUAL HEAT REMOVAL

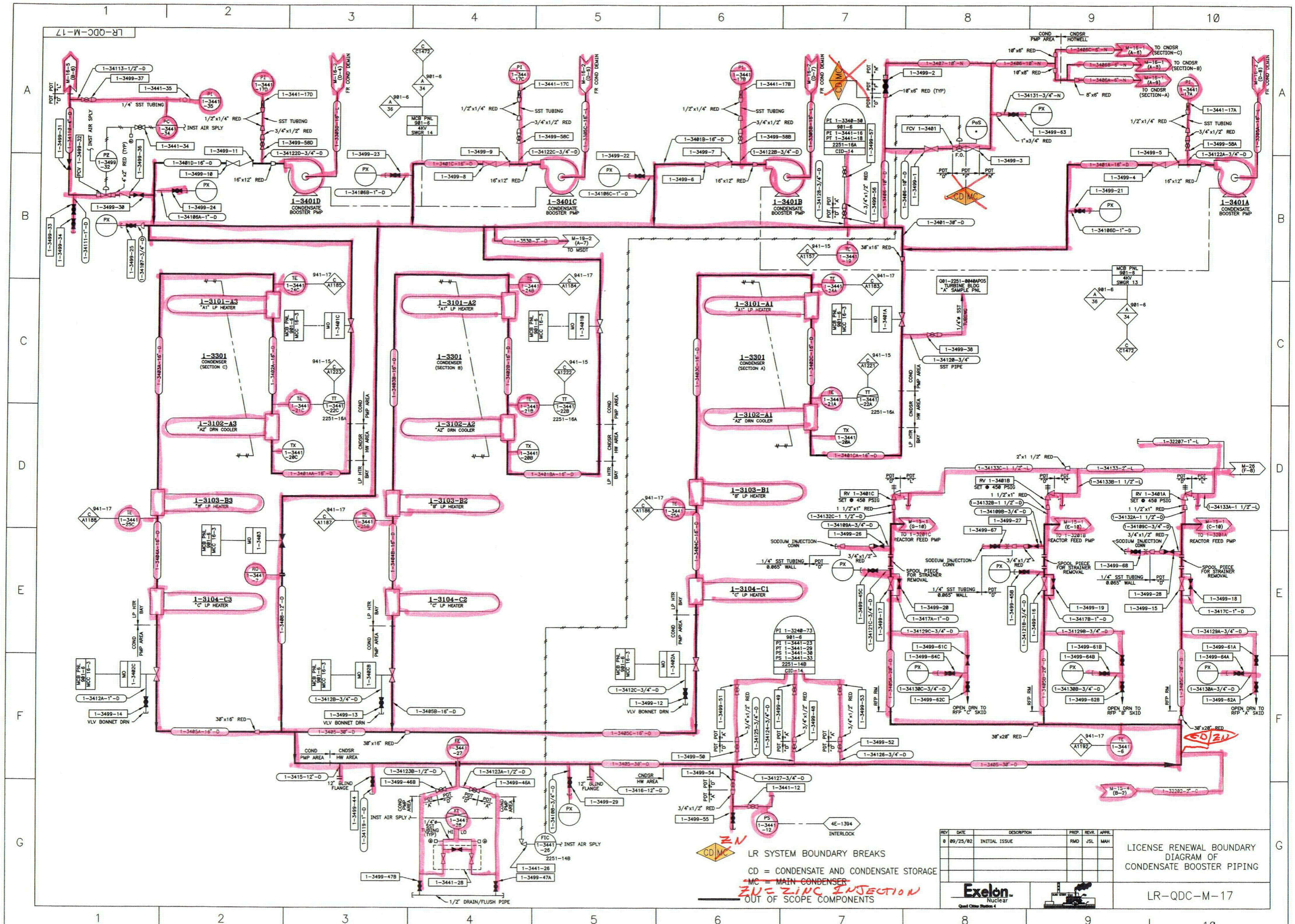
— IN SCOPE COMPONENTS PER 54.4(a)(1), AND 54.4(a)(3)
— IN SCOPE COMPONENTS PER 54.4(a)(2)
— OUT OF SCOPE COMPONENTS

REV	DATE	DESCRIPTION	PREP	REV	APPR
07	25/02	INITIAL ISSUE	SP	JSL	MAH

LICENSE RENEWAL BOUNDARY DIAGRAM OF CONDENSATE PIPING



LR-QDC-M-16-5



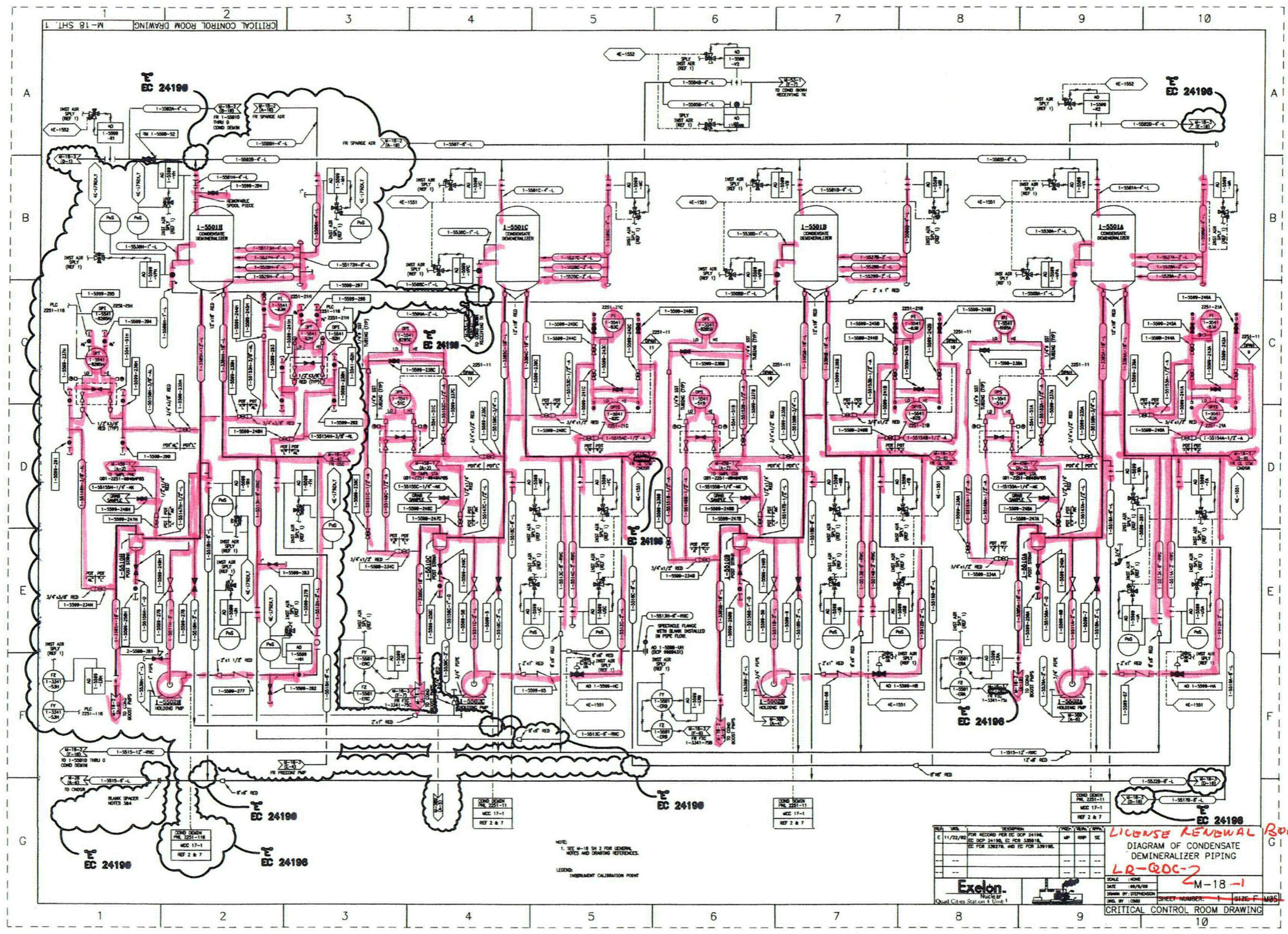
LR SYSTEM BOUNDARY BREAKS
 CD = CONDENSATE AND CONDENSATE STORAGE
 MC = MAIN CONDENSER
 ZN = ZINC INJECTION
 OUT OF SCOPE COMPONENTS

REV	DATE	DESCRIPTION	PREP	REV	APPR
0	09/25/02	INITIAL ISSUE	RMD	JSL	MAH

LICENSE RENEWAL BOUNDARY DIAGRAM OF CONDENSATE BOOSTER PIPING

Exelon Nuclear
 Quad Cities Station 4

LR-QDC-M-17



NOTE:
1. SEE M-18 SH 2 FOR GENERAL NOTES AND DRAWING REFERENCES.

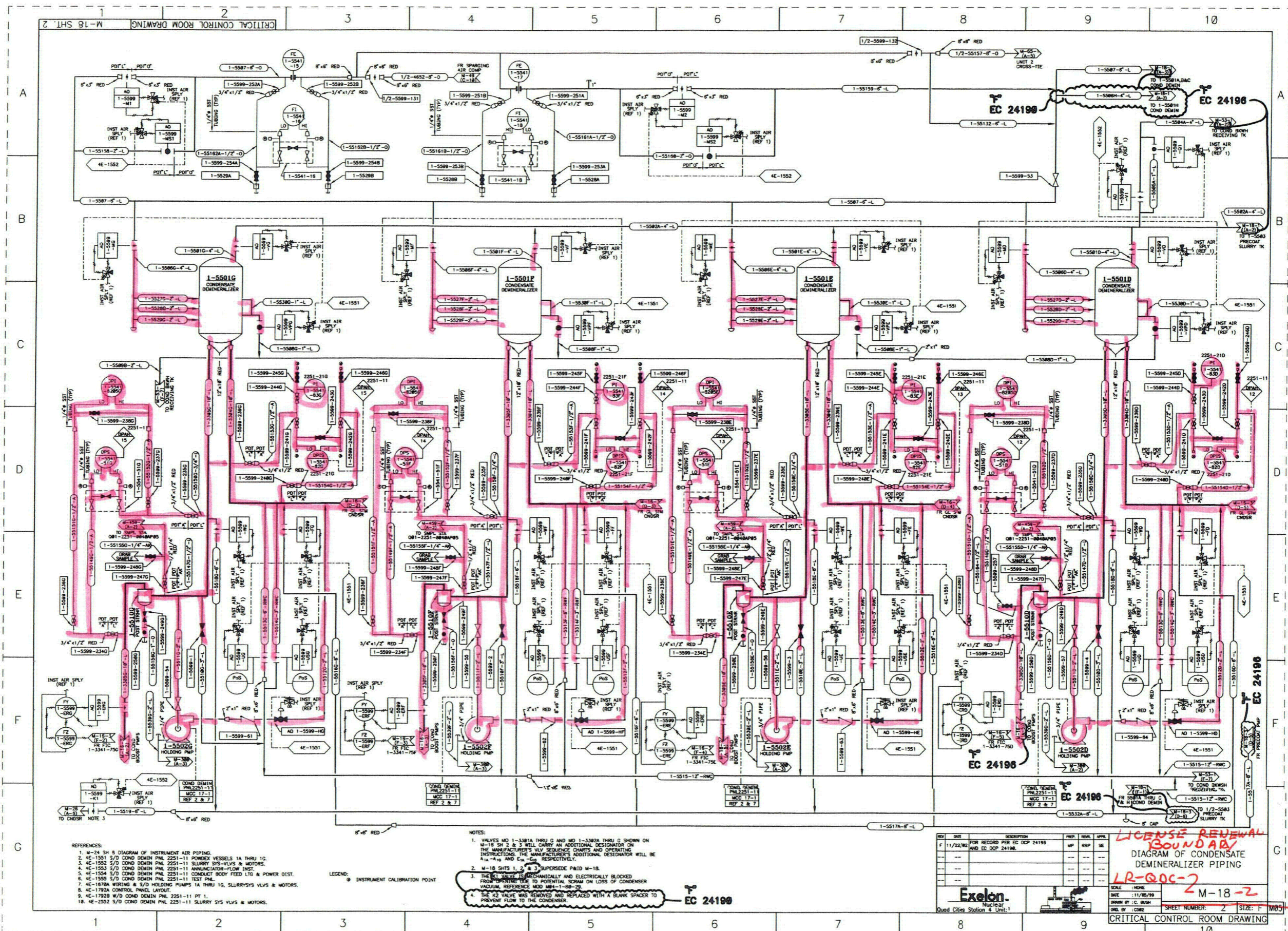
LEGEND:
INSTRUMENT CALIBRATION POINT

REV.	NO.	DESCRIPTION	DATE	BY	CHKD.
1	1	FOR RECORD PER DE OCP 24196	11/22/89
2	2	FOR OCP 24196, EC FOR 339196
3	3	FOR 339276, AND EC FOR 339196

DATE	11/22/89
DATE	11/22/89
DATE	11/22/89
DATE	11/22/89

Exelon
 Critical Control Room Drawing
 M-18-1
 SHEET NUMBER 1 OF 2
 CRITICAL CONTROL ROOM DRAWING
 10

LICENSE RENEWAL BOUNDARY



- REFERENCES:
- M-24 SH 8 DIAGRAM OF INSTRUMENT AIR PIPING.
 - 4E-1551 S/D COND. DEMIN. PNL 2251-11 POWDER VESSELS 1A THRU 1G.
 - 4E-1552 S/D COND. DEMIN. PNL 2251-11 SLURRY SYS. VLV'S & MOTORS.
 - 4E-1553 S/D COND. DEMIN. PNL 2251-11 ANNUNCIATOR-FLOW INST.
 - 4E-1554 S/D COND. DEMIN. PNL 2251-11 CONDUCT BODY FEED LIG & POWER DIST.
 - 4E-1555 S/D COND. DEMIN. PNL 2251-11 TEST PNL.
 - 4E-1678A WIRING & S/D HOLDING PUMPS 1A THRU 1G, SLURRY SYS. VLV'S & MOTORS.
 - 4E-1785A CONTROL PANEL LAYOUT.
 - 4E-1792B W/D COND. DEMIN. PNL 2251-11 PT 1.
 - 4E-2552 S/D COND. DEMIN. PNL 2251-11 SLURRY SYS. VLV'S & MOTORS.

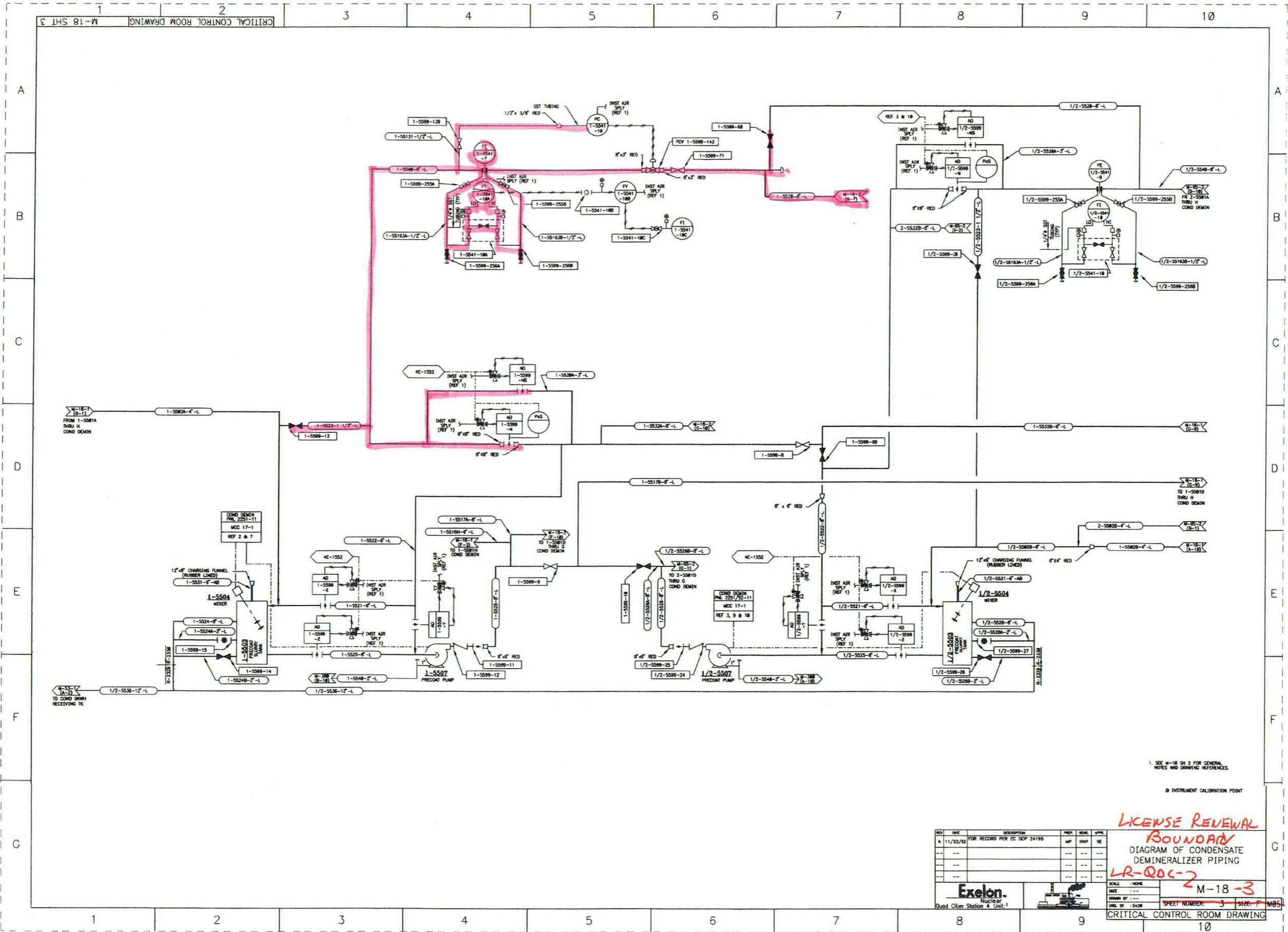
LEGEND: INSTRUMENT CALIBRATION POINT

- NOTES:
- VALVES MD 1-5501A THRU G AND MD 1-5501A THRU G SHOWN ON M-18 SH 2 & 3 WILL CARRY AN ADDITIONAL DESIGNATOR ON THE MANUFACTURER'S VLV SEQUENCE CHARTS AND OPERATING INSTRUCTIONS. THE MANUFACTURER'S ADDITIONAL DESIGNATOR WILL BE A1A-A1G AND E1A-E1G RESPECTIVELY.
 - M-18 SHS 1, 2 & 3 SUPERSEDE P&ID M-18.
 - THE K1 VALVE IS MECHANICALLY AND ELECTRICALLY BLOCKED FROM OPERATING DUE TO POTENTIAL SCRAM ON LOSS OF CONDENSER VACUUM. REFERENCE MOD M84-1-88-29.
 - THE K2 VALVE WAS REMOVED AND REPLACED WITH A BLANK SPACER TO PREVENT FLOW TO THE CONDENSER.

REV	DATE	DESCRIPTION	PREP	CHKD	APPR
1	11/22/80	FOR RECORD PER EC DCP 24198 AND EC DCP 24196.	MP	RP	SE

Exelon
 Nuclear
 Quad Cities Station 4 Unit 1

LICENSE RENEWAL BOUNDARY
 DIAGRAM OF CONDENSATE DEMINERALIZER PIPING
 LR-QOC-2
 M-18-2
 SCALE: NONE
 DATE: 11/85/99
 DRAWN BY: C. BUSH
 SHEET NUMBER: 2
 SIZE: F M05



1. SEE M-18 SH 2 FOR GENERAL NOTES AND DRAWING REFERENCES.

● INSTRUMENT CALIBRATION POINT

LICENSE RENEWAL
BOUNDARY
 DIAGRAM OF CONDENSATE
 DEMINERALIZER PIPING
LR-QDC-2
M-18-3

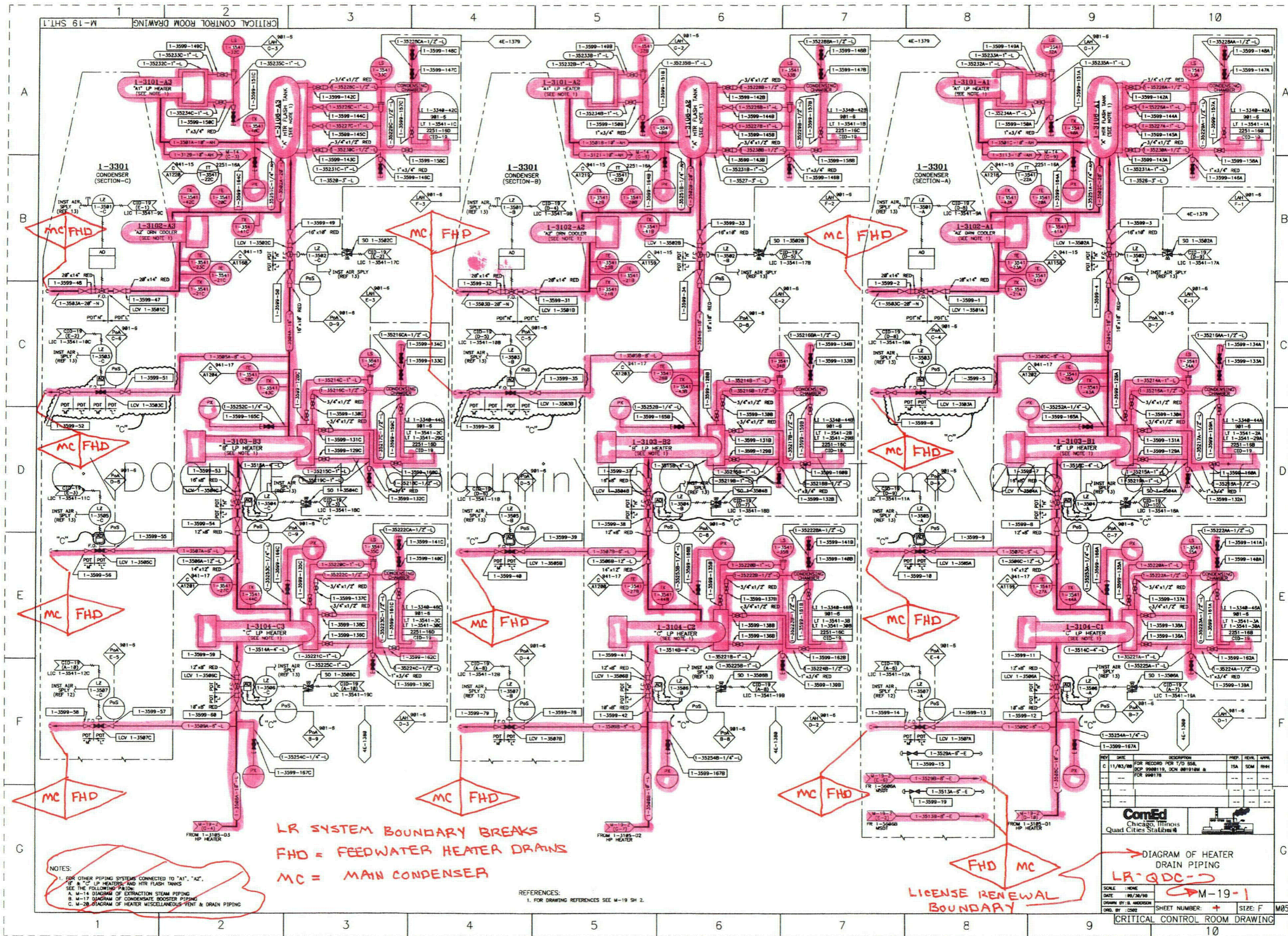
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A	11/22/12	FOR RECORD PER EC DCP 24195	MP	RRP	SE
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Exelon
 Nuclear
 Quad C/Gen Station 4 Unit-1

SCALE: NONE
 DATE: ---
 DRAWN BY: ---
 CHK BY: 5439

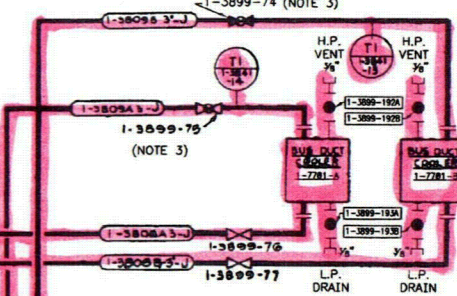
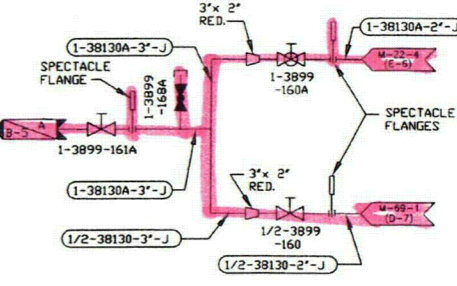
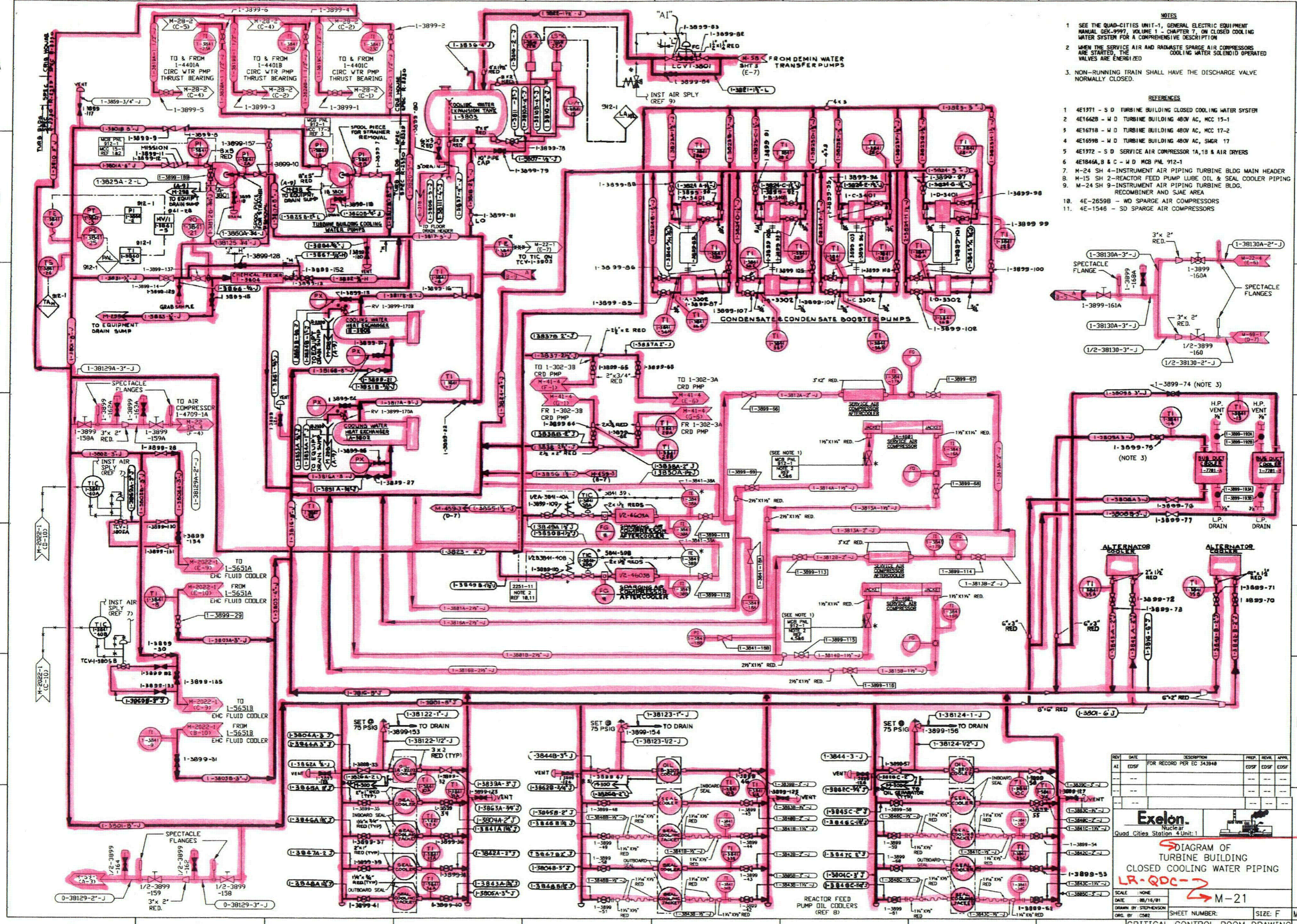
SHEET NUMBER: 3 OF 7
 MBS

CRITICAL CONTROL ROOM DRAWING



- NOTES**
- SEE THE QUAD-CITIES UNIT-1, GENERAL ELECTRIC EQUIPMENT MANUAL GEK-9997, VOLUME 1 - CHAPTER 7, ON CLOSED COOLING WATER SYSTEM FOR A COMPREHENSIVE DESCRIPTION
 - WHEN THE SERVICE AIR AND RADWASTE SPARGE AIR COMPRESSORS ARE STARTED, THE COOLING WATER SOLENOID OPERATED VALVES ARE ENERGIZED
 - NON-RUNNING TRAIN SHALL HAVE THE DISCHARGE VALVE NORMALLY CLOSED.

- REFERENCES**
- 4E1971 - S D TURBINE BUILDING CLOSED COOLING WATER SYSTEM
 - 4E162B - W D TURBINE BUILDING 4B0V AC, MCC 15-1
 - 4E167B - W D TURBINE BUILDING 4B0V AC, MCC 17-2
 - 4E169B - W D TURBINE BUILDING 4B0V AC, SMGR 17
 - 4E1972 - S D SERVICE AIR COMPRESSOR 1A, 1B & AIR DRYERS
 - 4E184A, B & C - W D MCB PNL 912-1
 - M-24 SH 4 - INSTRUMENT AIR PIPING TURBINE BLDG MAIN HEADER
 - M-15 SH 2 - REACTOR FEED PUMP LUBE OIL & SEAL COOLER PIPING
 - M-24 SH 9 - INSTRUMENT AIR PIPING TURBINE BLDG, RECOMBINER AND SIAE AREA
 - 4E-2659B - WD SPARGE AIR COMPRESSORS
 - 4E-1546 - SD SPARGE AIR COMPRESSORS



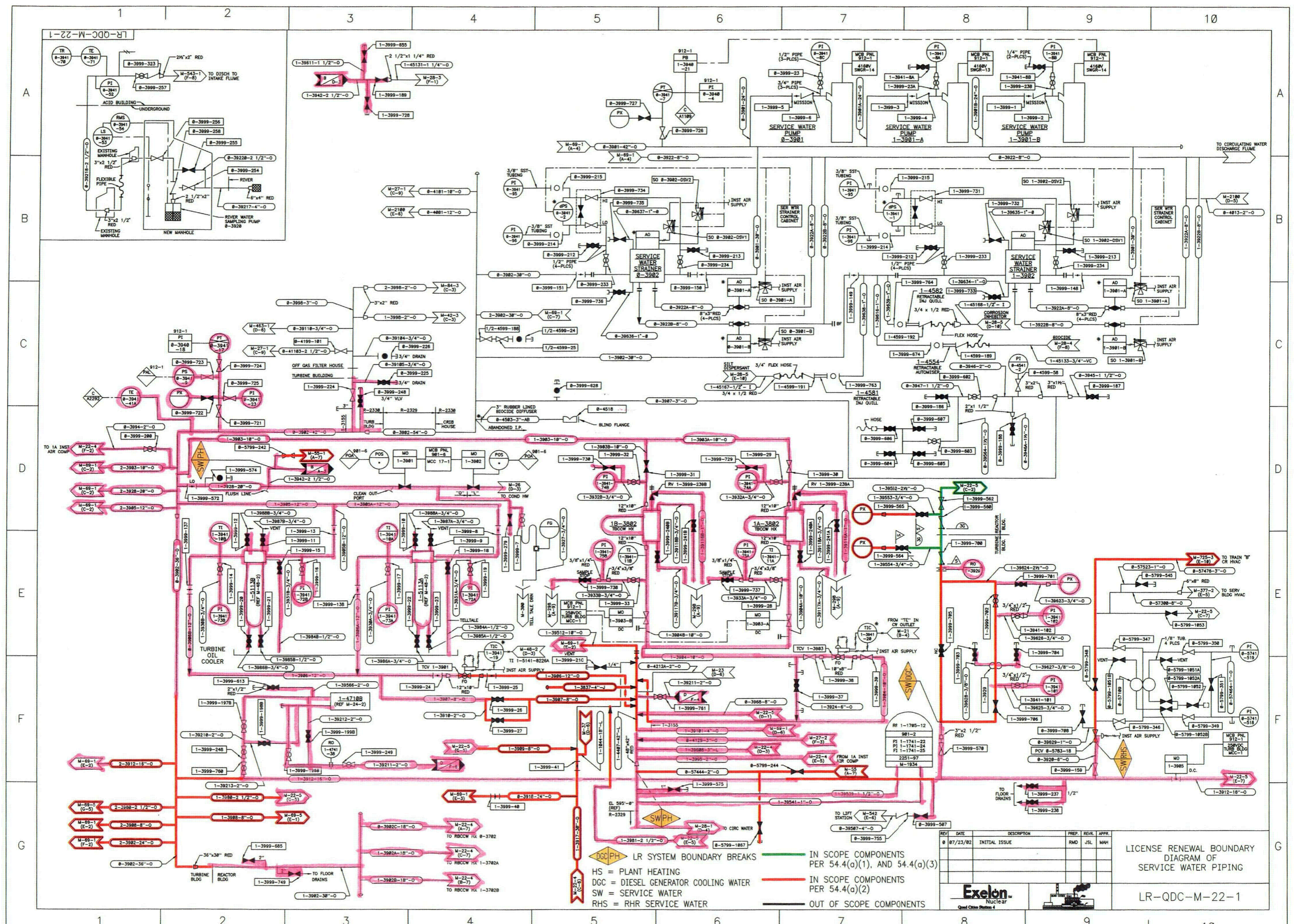
REV	DATE	DESCRIPTION	PREP.	REV.	APPR.
AL	EDSF	FOR RECORD PER EC 343948	EDSF	EDSF	EDSF
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Exelon
 Nuclear
 Quad Cities Station 4 Unit: 1

DIAGRAM OF TURBINE BUILDING CLOSED COOLING WATER PIPING
 LR-QDC-2
 M-21

SCALE: NONE
 DATE: 08/16/01
 DRAWN BY: STEPHENSON
 ORG BY: CS&E
 SHEET NUMBER: M05
 SIZE: F

LICENSE RENEWAL BOUNDARY



HS = PLANT HEATING
 DGC = DIESEL GENERATOR COOLING WATER
 SW = SERVICE WATER
 RHS = RHR SERVICE WATER

IN SCOPE COMPONENTS
 PER 54.4(a)(1), AND 54.4(a)(3)

IN SCOPE COMPONENTS
 PER 54.4(a)(2)

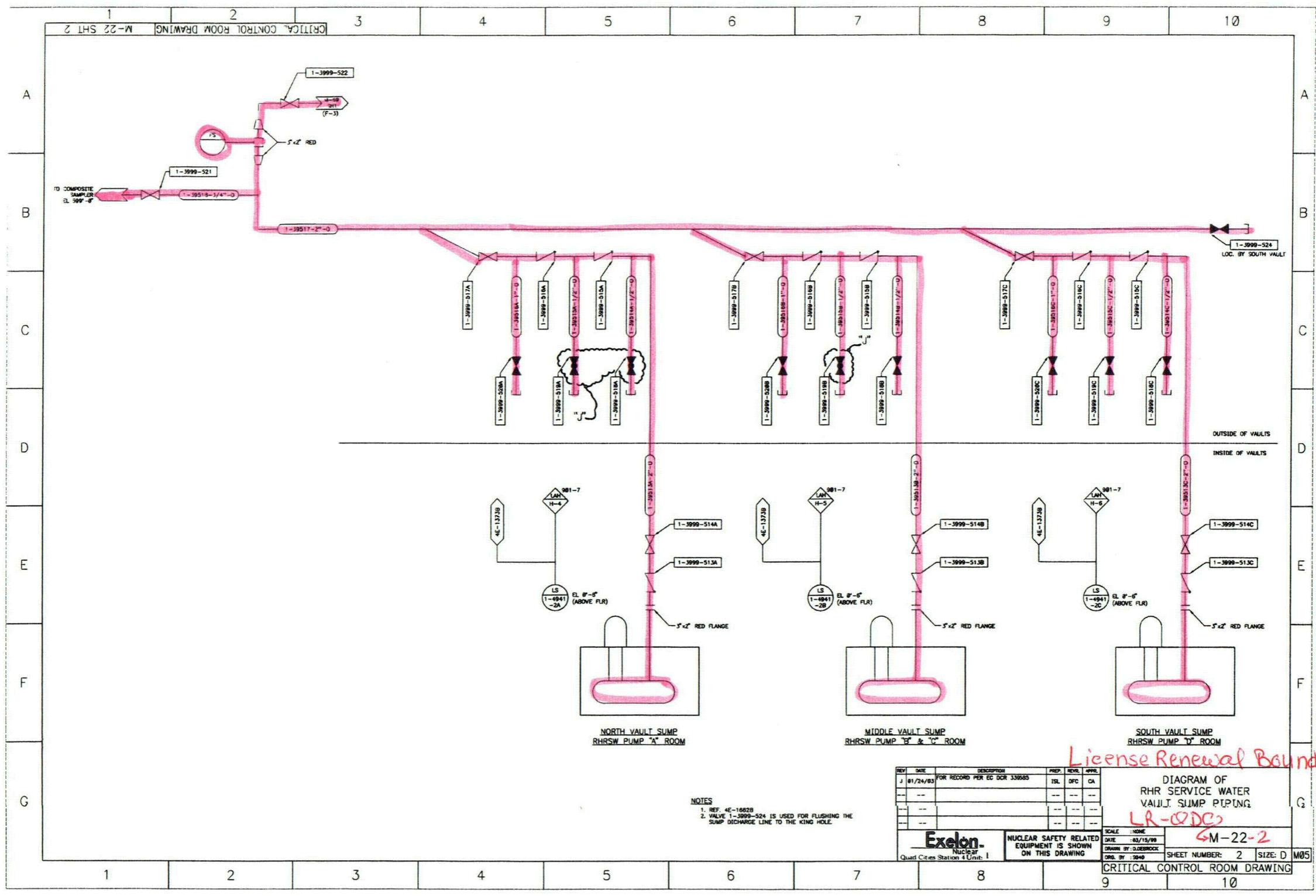
OUT OF SCOPE COMPONENTS

REV	DATE	DESCRIPTION	PREP.	REV.	APPR.
07/23/02		INITIAL ISSUE			

LICENSE RENEWAL BOUNDARY
 DIAGRAM OF
 SERVICE WATER PIPING

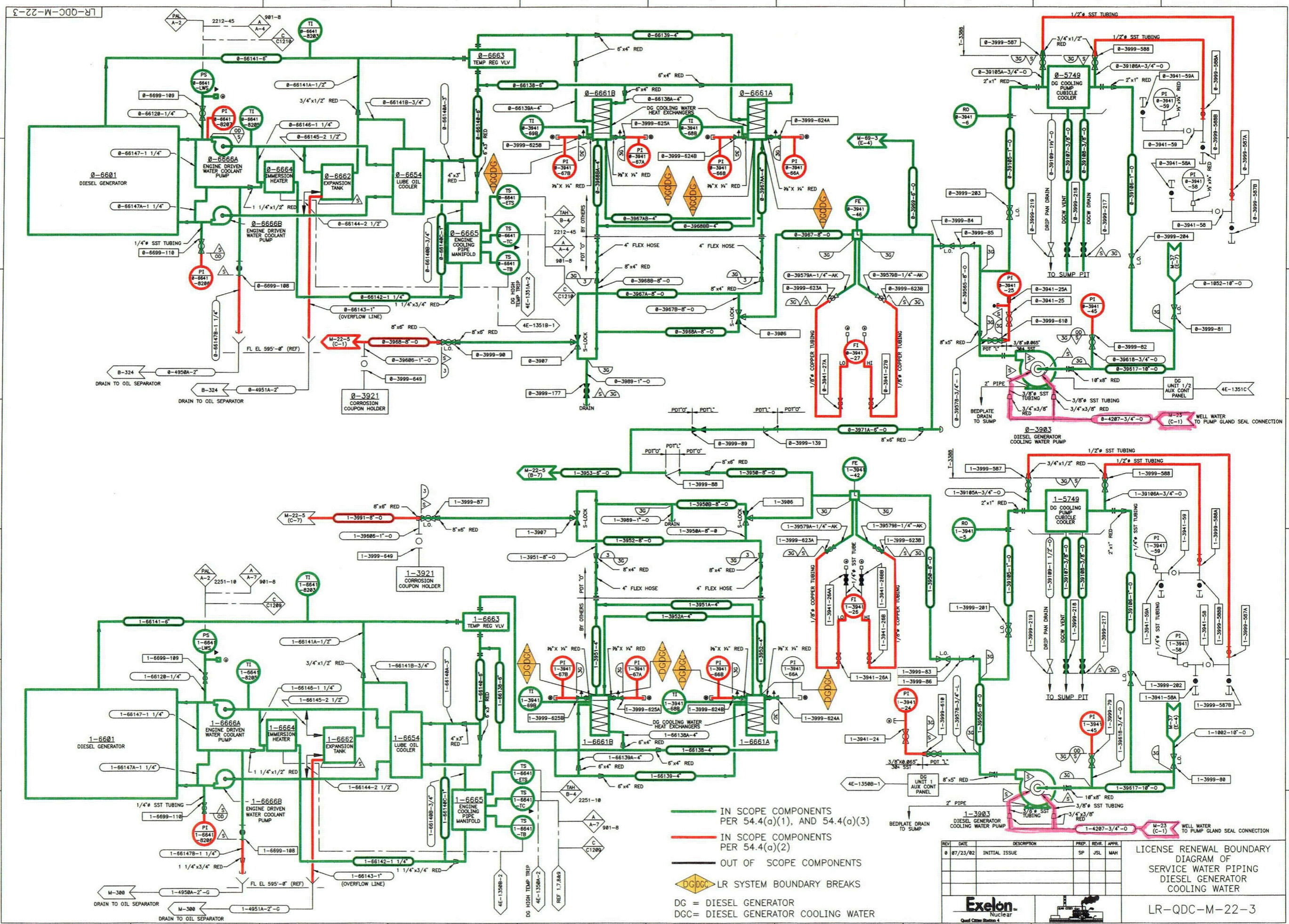
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 Nuclear
 Quad Cities Station 4

LR-QDC-M-22-1



License Renewal Boundary Drawing

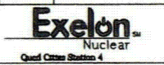
DIAGRAM OF RHR SERVICE WATER VAULT SUMP PIPING
LR-0020
M-22-2

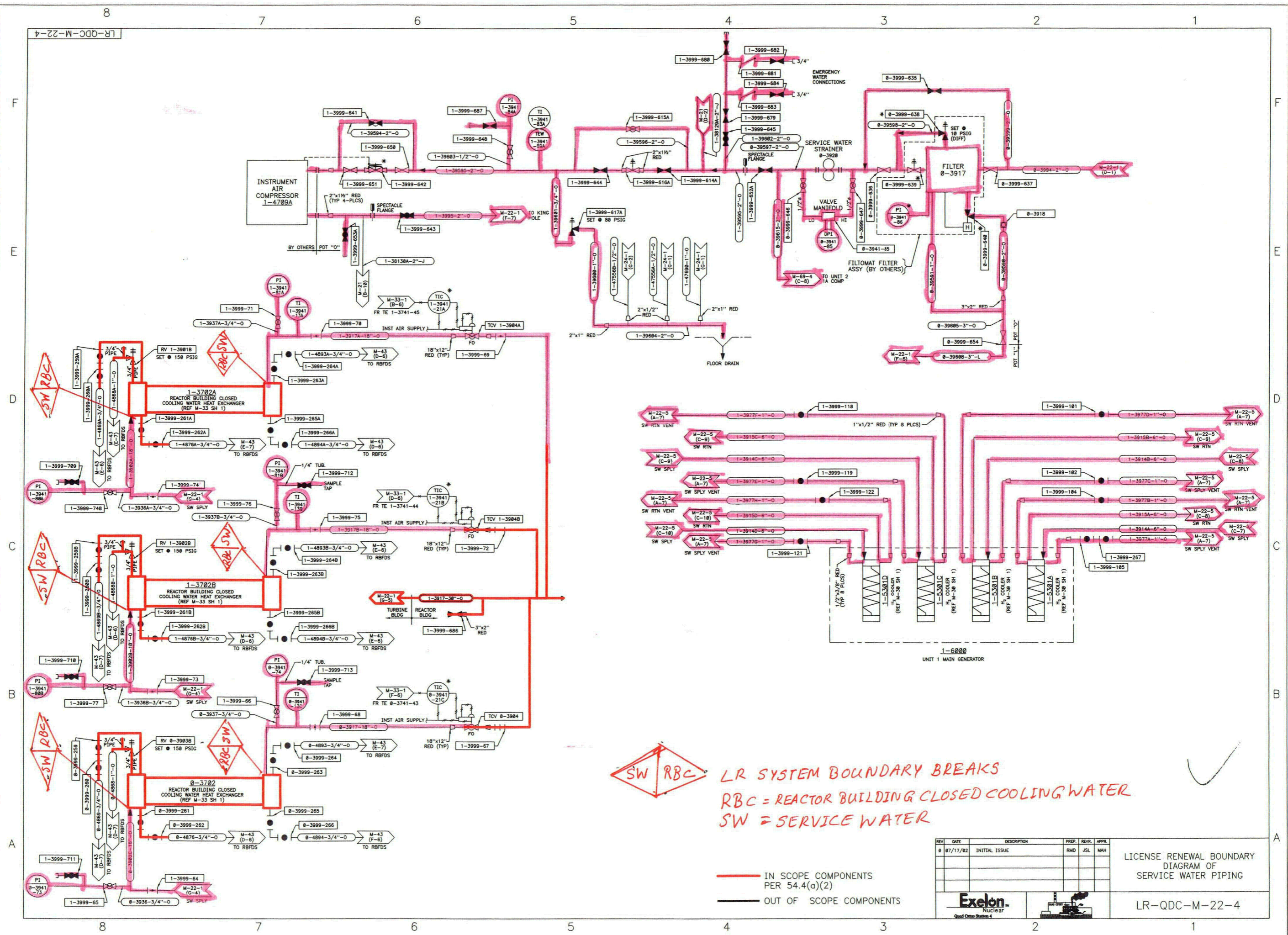


— IN SCOPE COMPONENTS PER 54.4(a)(1), AND 54.4(a)(3)
 — IN SCOPE COMPONENTS PER 54.4(a)(2)
 — OUT OF SCOPE COMPONENTS
 ◆ DCCDC LR SYSTEM BOUNDARY BREAKS
 DG = DIESEL GENERATOR
 DGC = DIESEL GENERATOR COOLING WATER

REV	DATE	DESCRIPTION	PREP	REV	APPR
0	07/23/02	INITIAL ISSUE	SP	JSL	MAH

LICENSE RENEWAL BOUNDARY DIAGRAM OF SERVICE WATER PIPING DIESEL GENERATOR COOLING WATER
 LR-QDC-M-22-3



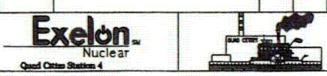


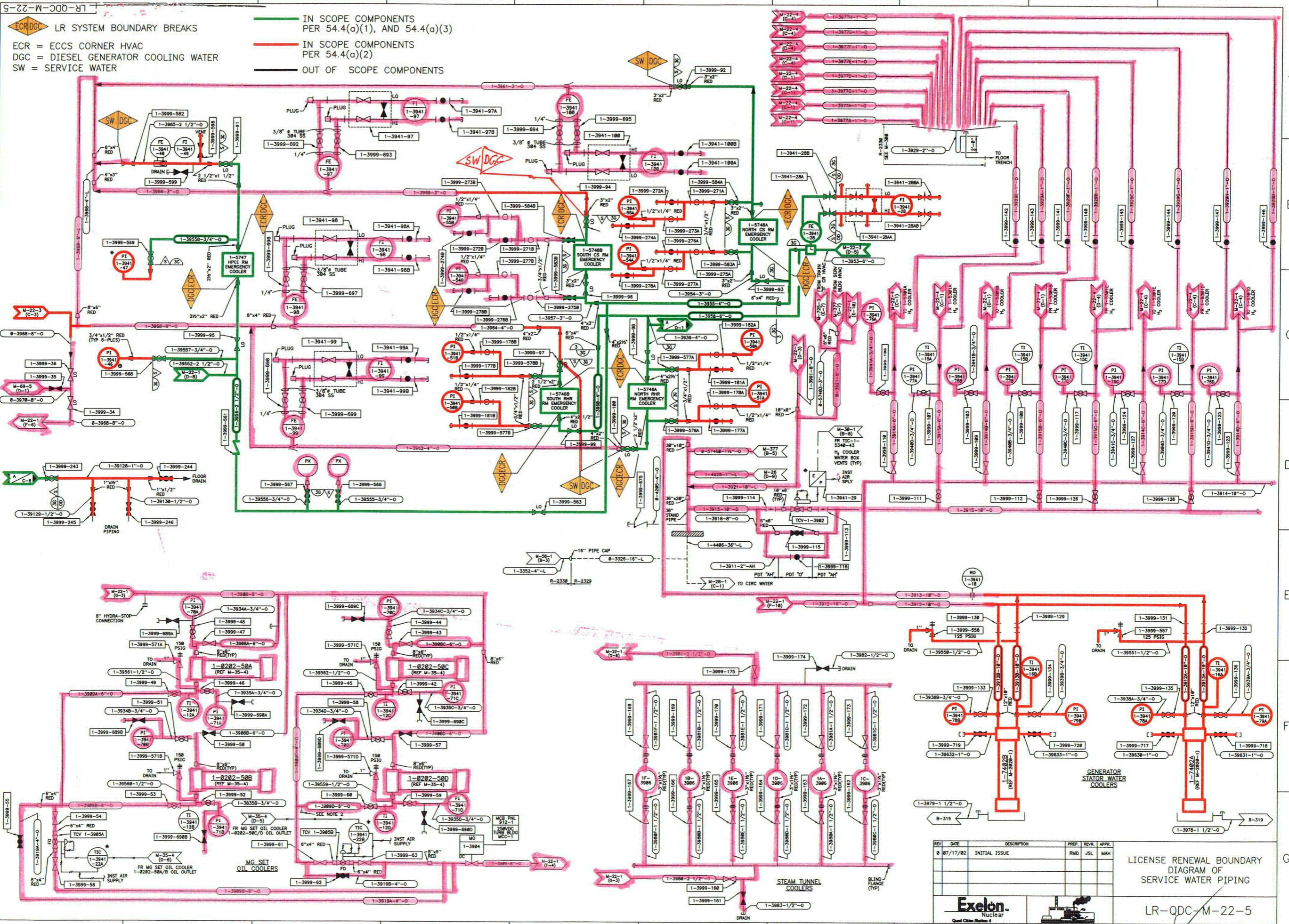
SW RBC LR SYSTEM BOUNDARY BREAKS
 RBC = REACTOR BUILDING CLOSED COOLING WATER
 SW = SERVICE WATER

— IN SCOPE COMPONENTS PER 54.4(a)(2)
— OUT OF SCOPE COMPONENTS

REV	DATE	DESCRIPTION	PREP.	REVR.	APPR.
0	07/17/02	INITIAL ISSUE	RMD	JSL	MAH

LICENSE RENEWAL BOUNDARY DIAGRAM OF SERVICE WATER PIPING
 LR-QDC-M-22-4





ECR DGC LR SYSTEM BOUNDARY BREAKS
 ECR = ECCS CORNER HVAC
 DGC = DIESEL GENERATOR COOLING WATER
 SW = SERVICE WATER

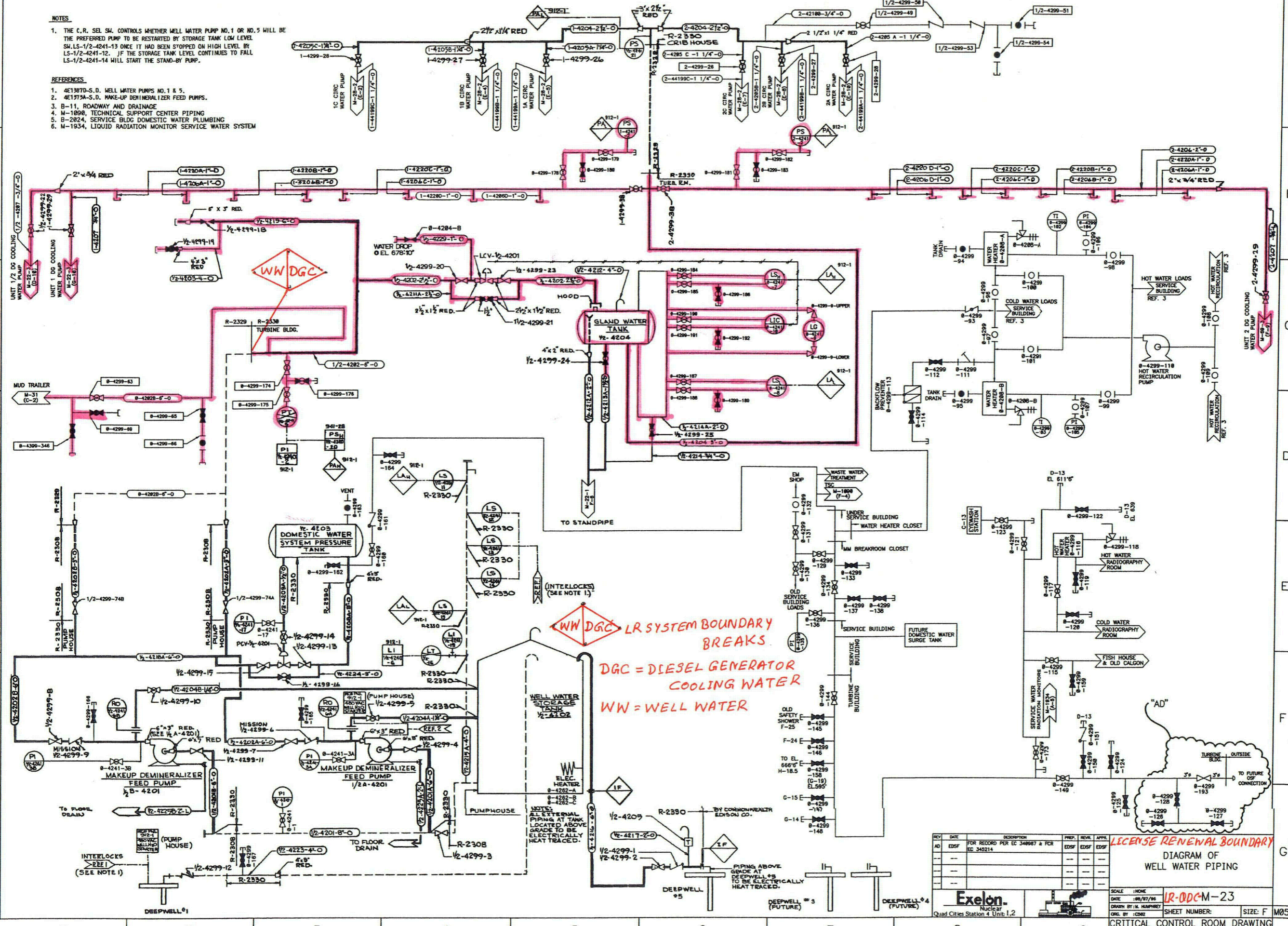
IN SCOPE COMPONENTS
 PER 54.4(o)(1), AND 54.4(o)(3)
 IN SCOPE COMPONENTS
 PER 54.4(o)(2)
 OUT OF SCOPE COMPONENTS

REV	DATE	DESCRIPTION	PREP.	REV.	APPR.
0	07/17/02	INITIAL ISSUE	RMD	JSL	MAH

LICENSE RENEWAL BOUNDARY
 DIAGRAM OF
 SERVICE WATER PIPING
 LR-QDC-M-22-5

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- NOTES**
1. THE C.R. SEL SW. CONTROLS WHETHER WELL WATER PUMP NO. 1 OR NO. 5 WILL BE THE PREFERRED PUMP TO BE RESTARTED BY STORAGE TANK LOW LEVEL SW. LS-1/2-4241-13 ONCE IT HAD BEEN STOPPED ON HIGH LEVEL BY LS-1/2-4241-12. IF THE STORAGE TANK LEVEL CONTINUES TO FALL LS-1/2-4241-14 WILL START THE STAND-BY PUMP.
- REFERENCES**
1. 4E1387D-S.D. WELL WATER PUMPS NO. 1 & 5.
 2. 4E1373A-S.D. MAKE-UP DEMINERALIZER FEED PUMPS.
 3. B-11, ROADWAY AND DRAINAGE.
 4. M-1098, TECHNICAL SUPPORT CENTER PIPING.
 5. B-2024, SERVICE BLDG DOMESTIC WATER PLUMBING.
 6. M-1934, LIQUID RADIATION MONITOR SERVICE WATER SYSTEM.

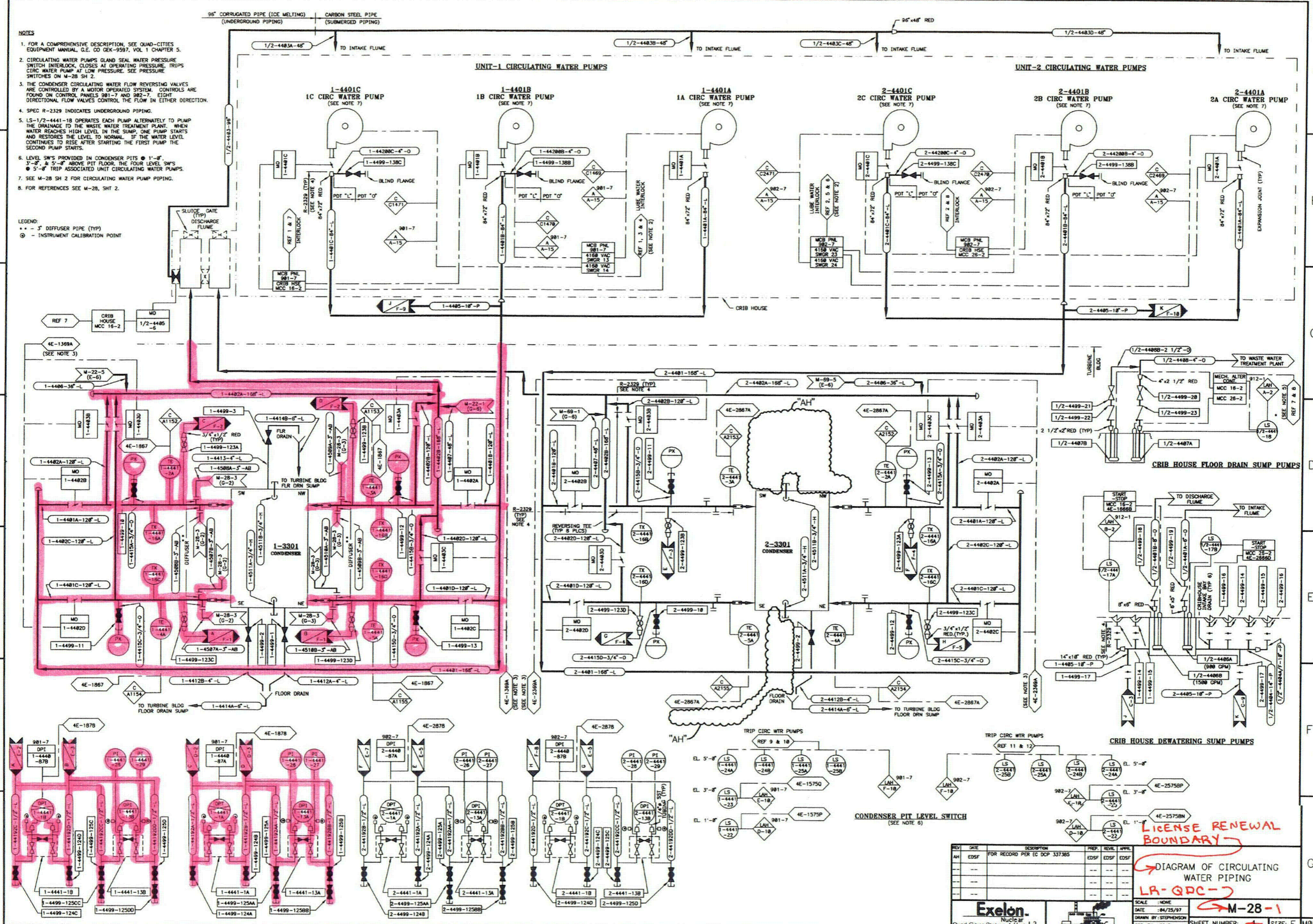


REV	DATE	DESCRIPTION	PROP.	REVL.	APPL.
AD	EDSF	FOR RECORD PER EC 348987 & FCR EC 345214	EDSF	EDSF	EDSF
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Exelon
 Nuclear
 Quad Cities Station 4 Unit 1,2

SCALE: NONE
 DATE: 08/07/96
 DRAWN BY: H. HANFORD
 CON. BY: CSMEZ
 SHEET NUMBER: LR-ODC-M-23
 SIZE: F M05

LICENSE RENEWAL BOUNDARY
 DIAGRAM OF WELL WATER PIPING
 CRITICAL CONTROL ROOM DRAWING



- NOTES**
1. FOR A COMPREHENSIVE DESCRIPTION, SEE QUAD-CITIES EQUIPMENT MANUAL, G.E. CO GEX-9587, VOL. 1 CHAPTER 5.
 2. CIRCULATING WATER PUMPS GLAND SEAL WATER PRESSURE SWITCH INTERLOCK, CLOSURES AT OPERATING PRESSURE. TRIPS CIRC WATER PUMP AT LOW PRESSURE. SEE PRESSURE SWITCHES ON M-28 SH 2.
 3. THE CONDENSER CIRCULATING WATER FLOW REVERSING VALVES ARE CONTROLLED BY A MOTOR OPERATED SYSTEM. CONTROLS ARE FOUND ON CONTROL PANELS 901-7 AND 902-7. EIGHT DIRECTIONAL FLOW VALVES CONTROL THE FLOW IN EITHER DIRECTION.
 4. SPEC R-2329 INDICATES UNDERGROUND PIPING.
 5. LS-1/2-4441-18 OPERATES EACH PUMP ALTERNATELY TO PUMP THE DRAINAGE TO THE WASTE WATER TREATMENT PLANT. WHEN WATER REACHES HIGH LEVEL IN THE SUMP, ONE PUMP STARTS AND RESTORES THE LEVEL TO NORMAL. IF THE WATER LEVEL CONTINUES TO RISE AFTER STARTING THE FIRST PUMP THE SECOND PUMP STARTS.
 6. LEVEL SWS PROVIDED IN CONDENSER PITS @ 1'-0", 3'-0", & 5'-0" ABOVE PIT FLOOR. THE FOUR LEVEL SWS @ 5'-0" TRIP ASSOCIATED UNIT CIRCULATING WATER PUMPS.
 7. SEE M-28 SH 2 FOR CIRCULATING WATER PUMP PIPING.
 8. FOR REFERENCES SEE M-28, SH 2.

LEGEND:
 * - 5" DIFFUSER PIPE (TYP)
 ○ - INSTRUMENT CALIBRATION POINT

LICENSE RENEWAL BOUNDARY

DIAGRAM OF CIRCULATING WATER PIPING
 LA-QDC-2

M-28-1

REV	DATE	DESCRIPTION	PREP.	REVL.	APPR.
AH	EDSF	FOR RECORD FOR EC DCP 337385	EDSF	EDSF	EDSF
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Exelon Nuclear
 Quad Cities Station 4 Unit 1, 2
 SCALE: NONE
 DATE: 04/25/97
 DRAWN BY: STEPHENSON
 DRC BY: S04B
 SHEET NUMBER: 1
 SIZE: F M05
 CRITICAL CONTROL ROOM DRAWING