

**LICENSE RENEWAL BOUNDARY DRAWINGS**

**BRAIDWOOD STATION, UNITS 1 AND 2**

**DOCKET NO. 50-456 AND 50-457**

**FACILITY OPERATING LICENSE NO.  
NPF-72 AND NPF-77**

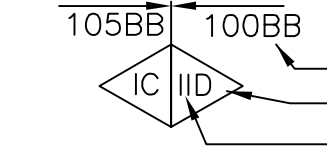
**MAY 29, 2013 SUBMITTAL**

LICENSE RENEWAL BOUNDARY DRAWING NOTES

- LICENSE RENEWAL BOUNDARY DRAWINGS ARE FOR REFERENCE ONLY AND ARE NOT CONSIDERED PART OF THE LICENSE RENEWAL APPLICATION. LICENSE RENEWAL BOUNDARY DRAWINGS ARE PROVIDED AS A REVIEWER'S AID TO ILLUSTRATE SYSTEM SCOPING DETAIL, CLARIFYING THE INFORMATION PROVIDED IN THE LICENSE RENEWAL APPLICATION. THE LICENSE RENEWAL APPLICATION SHALL GOVERN IF ANY CONFLICTS EXIST BETWEEN INFORMATION PROVIDED IN THE LICENSE RENEWAL APPLICATION AND THE LICENSE RENEWAL BOUNDARY DRAWINGS.
- THE LICENSE RENEWAL BOUNDARY DRAWINGS INDICATE SYSTEMS, STRUCTURES, AND COMPONENTS (SSCs) WITHIN THE SCOPE OF LICENSE RENEWAL BY COLORING THE SSCS THAT ARE IN SCOPE. RED IDENTIFIES THE NON-SAFETY RELATED SSCS THAT ARE INCLUDED IN SCOPE BECAUSE THEY ARE EITHER ATTACHED AND PROVIDE STRUCTURAL SUPPORT TO SAFETY RELATED SSCS, OR THEY HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY RELATED SSCS DUE TO POSTULATED LEAKAGE OR SPRAY. GREEN IDENTIFIES THE SSCS THAT ARE REQUIRED TO PERFORM OR SUPPORT INTENDED FUNCTIONS TO MEET SCOPING CRITERIA 10 CFR 54.4(a)(1) OR 10 CFR 54.4(a)(3). BLACK IDENTIFIES THE SSCS THAT ARE NOT IN SCOPE FOR LICENSE RENEWAL.
- SCOPING CRITERION 10 CFR 54.4(a)(2) REQUIRES PORTIONS OF NONSAFETY-RELATED PIPING SYSTEMS THAT ARE ATTACHED TO AND PROVIDE STRUCTURAL SUPPORT FOR SAFETY-RELATED PIPING SYSTEMS TO BE INCLUDED WITHIN THE SCOPE OF LICENSE RENEWAL. THE 10 CFR 54.4(a)(2) STRUCTURAL SUPPORT BOUNDARY FOR A SAFETY-RELATED PIPING SYSTEM IS DEFINED BY SEISMIC ANCHOR OR SOME OTHER STRUCTURAL SUPPORT TERMINATION POINT LOCATED SUCH THAT SEISMIC LOADS OF PIPING BEYOND THE TERMINATION POINT WILL NOT AFFECT THE RESPONSE OF THE SAFETY-RELATED PIPING. THE LOCATION OF THESE STRUCTURAL SUPPORT TERMINATION POINTS ARE IDENTIFIED WITH SYMBOLS ON THE LICENSE RENEWAL BOUNDARY DRAWINGS (HIGHLIGHTED IN BLUE). LR-BRW-M-34, SHEET 3 PROVIDES A LEGEND WHICH DEFINES THE 10 CFR 54.4(a)(2) TERMINATION POINT SYMBOLS.
- THE MECHANICAL SYSTEM PROCESS FLOW PATH WILL BE COLORED. SUPPLEMENTAL DRAWING INFORMATION SUCH AS COMPONENT IDENTIFICATION NAMES OR NUMBERS, LINE NUMBERS OR LINE SPECIFICATIONS, CLASS BREAKS, AND INSTRUMENT LOCATION INFORMATION WILL NOT BE COLORED.
- THE SITE PLAN LICENSE RENEWAL BOUNDARY DRAWING (LR-BRW-S-01A) IDENTIFIES THE PLANT STRUCTURES IN SCOPE FOR LICENSE RENEWAL. STRUCTURES WITHIN THE SCOPE OF LICENSE RENEWAL ARE HIGHLIGHTED IN GREEN. NOT IN SCOPE STRUCTURES ARE SHOWN IN BLACK. ALL OTHER LICENSE RENEWAL SCOPING DRAWINGS WERE DEVELOPED FROM PLANT PIPING AND INSTRUMENTATION DIAGRAMS, AND IDENTIFY THE MECHANICAL SYSTEMS AND EQUIPMENT IN SCOPE FOR LICENSE RENEWAL. WHEN APPROPRIATE, EXTRANEOUS OPERATIONAL INFORMATION THAT IS IMMATERIAL TO SCOPING DECISIONS OR DETERMINATION OF INTENDED FUNCTIONS (e.g., RELIEF VALVE SETPOINTS, SYSTEM FLOWRATES) IS REMOVED FROM THE DRAWING TO ALLOW FOR EASE OF READING.
- INSTRUMENTATION TUBING, UP TO AND INCLUDING THE ASSOCIATED INSTRUMENTS CONNECTED TO THE IN SCOPE PRESSURE BOUNDARY PIPING, WILL BE COLORED AS IN SCOPE EVEN IF THE ASSOCIATED INSTRUMENT IS ACTIVE AND, THEREFORE, NOT SUBJECT TO AGING MANAGEMENT REVIEW.
- CONTROL SCHEME REPRESENTATIONS THAT APPEAR ON THE LICENSE RENEWAL BOUNDARY DRAWINGS ARE NOT COLORED AS IN SCOPE. CONTROL SCHEME COMPONENTS IN SCOPE FOR LICENSE RENEWAL ARE EITHER ACTIVE OR ARE INCLUDED WITH ELECTRICAL COMMODITIES FOR APPLICABLE AGING MANAGEMENT REVIEW.
- LICENSE RENEWAL BOUNDARY DRAWINGS USE THE EXISTING PLANT FLOW DIAGRAM NUMBERS, PREFIXED BY "LR-BRW-". CONTINUATION ARROWS THAT APPEAR ON THE LICENSE RENEWAL SCOPING DRAWINGS USE PLANT FLOW DIAGRAM NUMBERS, SO IT IS NECESSARY TO PREFIX THE DRAWING NUMBER WITH "LR-BRW-" TO IDENTIFY THE APPROPRIATE INTERFACING LICENSE RENEWAL DRAWING.
- SYSTEM BOUNDARIES BETWEEN IN SCOPE SYSTEMS ARE IDENTIFIED WITH BOUNDARY FLAGS (HIGHLIGHTED IN BLUE) ON THE LICENSE RENEWAL SCOPING DRAWINGS. THE LICENSE RENEWAL SYSTEMS TABLE (SHOWN ON THIS SHEET) IDENTIFIES THE LICENSE RENEWAL SYSTEM NAMES, AND THE ABBREVIATED SYSTEM CODES USED WITH THE SYSTEM BOUNDARY FLAG. THE TYPICAL BOUNDARY FLAG DETAIL (SHOWN ON THIS SHEET) PROVIDES A TYPICAL EXAMPLE OF A LICENSE RENEWAL SYSTEM BOUNDARY FLAG.
- BOUNDARY FLAGS MAY NOT BE INCLUDED IN THE FOLLOWING CASES WHERE THE BOUNDARY INTERFACE IS OBVIOUS:
  - INTERFACE BETWEEN A MECHANICAL PIPING SYSTEM AND THE REACTOR VESSEL—THE INTERFACE OCCURS WHERE THE PIPING SYSTEM CONNECTS TO THE REACTOR VESSEL NOZZLE.
  - INTERFACE BETWEEN A PNEUMATIC AIR SUPPLY LINE AND AN AIR OPERATED VALVE OPERATOR.
  - INTERFACE BETWEEN MECHANICAL SYSTEMS AND STRUCTURES, SUCH AS BUILDING OR WALL PENETRATIONS, PRIMARY CONTAINMENT PENETRATIONS, OR PENETRATIONS WITH THE MAIN VENTILATION STACK.
  - INTERFACE BETWEEN A MECHANICAL SYSTEM AND A FLOOR EQUIPMENT DRAIN—THE INTERFACE IS INDICATED WITH TEXT INDICATING THE INTERFACE IS TO A DRAIN, OR BY USE OF A DRAIN SYMBOL.
- SCOPING OF PIPING INSULATION IS NOT SHOWN ON THE LICENSE RENEWAL SCOPING DRAWINGS. INSULATION INCLUDED IN SCOPE IS IDENTIFIED IN THE LICENSE RENEWAL APPLICATION.
- SOLENOID VALVES THAT ARE IN SCOPE FOR LICENSE RENEWAL BUT DO NOT HAVE A PASSIVE PRESSURE BOUNDARY FUNCTION WILL NOT BE COLORED. THIS AVOIDS CONFUSION, AS THE INTERCONNECTING TUBING IN THESE APPLICATIONS IS NOT IN SCOPE.
- IN MANY CASES, THE PLANT FLOW DIAGRAMS DO NOT PROVIDE THE LEVEL OF DETAIL TO SHOW ALL INSTRUMENT VALVES SUCH AS ROOT VALVES, DRAIN AND VENT VALVES, BLOCK VALVES, EQUALIZATION VALVES, etc. FOR INSTRUMENTATION ASSOCIATED WITH PROCESS PIPING IN SCOPE FOR LICENSE RENEWAL, THESE INSTRUMENT VALVES ARE ALSO INCLUDED IN SCOPE EVEN THOUGH NOT EXPLICITLY IDENTIFIED ON THE LICENSE RENEWAL BOUNDARY DRAWINGS.
- THIS DRAWING IS BASED ON BRAIDWOOD STATION DRAWING M-34, SHEET 1A, REVISION C.

LICENSE RENEWAL SYSTEMS		
LICENSE RENEWAL SYSTEM NAME	SYSTEM CODE	BOUNDARY DRAWING REFERENCE LIST (PRIMARY BOUNDARY DRAWINGS FOR EACH SYSTEM ARE BOLDED)
AUXILIARY BUILDING VENTILATION SYSTEM	ABV	LR-BRW-M-48 SH. 2, 3A, 3B, 6A, 6C, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 20A, 20B, 21A, 21B, 21C, 23, 38, 39, 40, 54, 57; LR-BRW-M-50 SH. 1C, 1D; LR-BRW-M-61 SH. 1B; LR-BRW-M-62 SH. 1; LR-BRW-M-63 SH. 1B, 1C; LR-BRW-M-64 SH. 3A, 3B, 4A, 5, 6, 7; LR-BRW-M-65 SH. 1B, 4, 5A, 5B; LR-BRW-M-69 SH. 1; LR-BRW-M-77 SH. 1, 2; <b>LR-BRW-M-95 SH. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16;</b> LR-BRW-M-97 SH. 1; LR-BRW-M-98 SH. 1; LR-BRW-M-102 SH. 1; LR-BRW-M-105 SH. 1; LR-BRW-M-106 SH. 1; LR-BRW-M-113 SH. 3; LR-BRW-M-115 SH. 1; LR-BRW-M-116 SH. 1; LR-BRW-M-128 SH. 2; LR-BRW-M-130 SH. 1A, 1B; LR-BRW-M-130 SH. 1A, 1B; LR-BRW-M-137 SH. 1; LR-BRW-M-138 SH. 3A, 3B, 4A, 4B, 5A, 5B, 6, 7
AUXILIARY FEEDWATER SYSTEM	AFW	<b>LR-BRW-M-37 SH. 1;</b> LR-BRW-M-42 SH. 3; LR-BRW-M-49 SH. 1A, 1B; LR-BRW-M-50 SH. 3; LR-BRW-M-55 SH. 8; <b>LR-BRW-M-122 SH. 1;</b> LR-BRW-M-126 SH. 1; LR-BRW-M-130 SH. 2
CHEMICAL & VOLUME CONTROL SYSTEM	CVC	LR-BRW-M-48 SH. 7, 9, 10, 11, 12, 13, 14, 15, 17, 18, 29, 57; LR-BRW-M-60 SH. 1A, 2, 3, 4, 6; LR-BRW-M-61 SH. 1A, 1B, 2, 3, 4, 6; LR-BRW-M-62 SH. 1; LR-BRW-M-63 SH. 1C; <b>LR-BRW-M-64 SH. 1, 2, 3A, 3B, 4A, 4B, 5, 6, 7, 8;</b> LR-BRW-M-65 SH. 1A, 1B, 2A, 2B, 2C, 3, 4, 5A, 5B, 6, 7, 8; LR-BRW-M-66 SH. 4A, 4B; LR-BRW-M-68 SH. 1A, 1B, 6; LR-BRW-M-69 SH. 2; LR-BRW-M-70 SH. 2; LR-BRW-M-74 SH. 1, 2; LR-BRW-M-135 SH. 1A, 2, 3, 4, 6; LR-BRW-M-136 SH. 1, 2, 3, 4, 6; LR-BRW-M-137 SH. 1; <b>LR-BRW-M-138 SH. 1, 2, 3A, 3B, 4A, 4B, 5A, 5B, 5C, 6, 7, 8;</b> LR-BRW-M-140 SH. 1A, 1B, 5; LR-BRW-M-152 SH. 47
CHILLED WATER SYSTEM	CHW	LR-BRW-M-82 SH. 15; <b>LR-BRW-M-118 SH. 1, 4, 5, 6, 7, 8, 9, 10, 13, 14, 16</b>
COMBUSTIBLE GAS CONTROL SYSTEM	CGC	<b>LR-BRW-M-47 SH. 2; LR-BRW-M-150 SH. 2; LR-BRW-M-152 SH. 6</b>
COMPONENT COOLING SYSTEM	CCS	LR-BRW-M-48 SH. 29; LR-BRW-M-60 SH. 1A, 2, 3, 4; LR-BRW-M-62 SH. 1; LR-BRW-M-63 SH. 1B, 1C; LR-BRW-M-64 SH. 3A, 4A, 5; LR-BRW-M-65 SH. 3, 6; <b>LR-BRW-M-66 SH. 1A, 1B, 2, 3A, 3B, 4A, 4B, 4C, 4D;</b> LR-BRW-M-70 SH. 2; LR-BRW-M-93 SH. 1, 2; LR-BRW-M-135 SH. 1A, 2, 3, 4; LR-BRW-M-137 SH. 1; LR-BRW-M-138 SH. 3A, 4B, 5A; <b>LR-BRW-M-139 SH. 1, 2</b>
COMPRESSED AIR SYSTEM	CAS	<b>LR-BRW-M-54 SH. 2; LR-BRW-M-55 SH. 10, 11, 14, 15;</b> LR-BRW-M-63 SH. 1A
CONDENSATE AND FEEDWATER AUXILIARIES SYSTEM	CFA	LR-BRW-M-41 SH. 3, 4, 7, 8; LR-BRW-M-47 SH. 1B, 1C; LR-BRW-M-125 SH. 3B, 4A, 7, 8; LR-BRW-M-150 SH. 1
CONTAINMENT SPRAY SYSTEM	CSS	<b>LR-BRW-M-46 SH. 1A, 1B, 1C;</b> LR-BRW-M-61 SH. 4; <b>LR-BRW-M-129 SH. 1A, 1B, 1C;</b> LR-BRW-M-136 SH. 4
CONTAINMENT VENTILATION SYSTEM	CVS	LR-BRW-M-70 SH. 3; LR-BRW-M-103 SH. 2; LR-BRW-M-104 SH. 2; <b>LR-BRW-M-105 SH. 1, 3; LR-BRW-M-106 SH. 1</b>
CONTROL AREA VENTILATION SYSTEM	CAV	<b>LR-BRW-M-96 SH. 1, 2, 3, 4, 5;</b> LR-BRW-M-128 SH. 2
DEMINERALIZED WATER SYSTEM	DWS	<b>LR-BRW-M-49 SH. 1A, 1B;</b> LR-BRW-M-64 SH. 8; LR-BRW-M-65 SH. 2B; LR-BRW-M-66 SH. 4A, 4B; LR-BRW-M-68 SH. 2; LR-BRW-M-118 SH. 1, 4, 6, 8; LR-BRW-M-128 SH. 2
EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM	EDG	LR-BRW-M-49 SH. 1A, 1B; <b>LR-BRW-M-50 SH. 1C, 1D; LR-BRW-M-54 SH. 4A, 4B;</b> LR-BRW-M-97 SH. 1; LR-BRW-M-98 SH. 1; <b>LR-BRW-M-130 SH. 1A, 1B, 2; LR-BRW-M-152 SH. 9, 10, 14, 15, 16, 17, 20, 20A</b>
FUEL HANDLING & FUEL STORAGE SYSTEM	FHS	<b>LR-BRW-M-70 SH. 1; LR-BRW-M-141 SH. 1</b>
FIRE PROTECTION SYSTEM	FPS	LR-BRW-M-42 SH. 2B; LR-BRW-M-48 SH. 35B; LR-BRW-M-50 SH. 3; <b>LR-BRW-M-52 SH. 1, 3, 4, 5, 7, 8, 9, 10, 13, 14, 15;</b> LR-BRW-M-58 SH. 1, 2, 4; LR-BRW-M-94 SH. 2; LR-BRW-M-95 SH. 11, 12; LR-BRW-M-96 SH. 1, 2; LR-BRW-M-103 SH. 3; LR-BRW-M-104 SH. 3; LR-BRW-M-105 SH. 1; LR-BRW-M-106 SH. 1; LR-BRW-M-113 SH. 3; LR-BRW-M-114 SH. 2; LR-BRW-S-01A
FUEL OIL SYSTEM	FOS	<b>LR-BRW-M-50 SH. 1A, 1B, 1C, 1D, 3; LR-BRW-M-130 SH. 1A, 1B, 2;</b> LR-BRW-M-152 SH. 10
HEATING WATER AND HEATING STEAM SYSTEM	HWS	LR-BRW-M-35 SH. 5C; LR-BRW-M-48 SH. 9, 11, 13, 38, 39, 40; LR-BRW-M-56 SH. 2, 4A, 4C, 6; LR-BRW-M-65 SH. 3, 5A, 6; <b>LR-BRW-M-72 SH. 1B, 2, 3, 5, 7, 8, 10;</b> LR-BRW-M-120 SH. 5C
MAIN CONDENSATE AND FEEDWATER SYSTEM	MCF	LR-BRW-M-36 SH. 1A, 1B, 1C, 1D, 2; LR-BRW-M-37 SH. 1; <b>LR-BRW-M-39 SH. 1, 2, 3;</b> LR-BRW-M-41 SH. 8; <b>LR-BRW-M-121 SH. 1A, 1B, 1C, 1D, 2;</b> LR-BRW-M-122 SH. 1; <b>LR-BRW-M-124 SH. 1, 2, 3;</b> LR-BRW-M-125 SH. 8
MAIN STEAM SYSTEM	MSS	<b>LR-BRW-M-35 SH. 1, 2, 3, 4, 5C, 7;</b> LR-BRW-M-41 SH. 4; LR-BRW-M-68 SH. 8; <b>LR-BRW-M-120 SH. 1, 2A, 2B, 3, 4A, 5C, 7</b>
MAIN TURBINE AND AUXILIARIES SYSTEM	MTA	<b>LR-BRW-M-35 SH. 3, 4, 5A, 5B, 5C, 6, 7; LR-BRW-M-38 SH. 3A, 3B; LR-BRW-M-41 SH. 7, 8; LR-BRW-M-120 SH. 3, 4A, 4B, 5A, 5B, 5C, 6, 7; LR-BRW-M-123 SH. 3A, 3B; LR-BRW-M-125 SH. 7, 8;</b> LR-BRW-M-152 SH. 2B, 2E
NON-RADIOACTIVE DRAIN SYSTEM	NDS	<b>LR-BRW-M-48 SH. 16, 19, 25</b>
RADIATION MONITORING SYSTEM	RMS	LR-BRW-M-42 SH. 3, 5A, 5B; LR-BRW-M-48 SH. 3A, 3B, 9, 11, 13, 20A, 20B; LR-BRW-M-56 SH. 4C; LR-BRW-M-64 SH. 5, 8; LR-BRW-M-66 SH. 4D; LR-BRW-M-68 SH. 2; <b>LR-BRW-M-78 SH. 2, 6, 7, 10, 12, 14;</b> LR-BRW-M-95 SH. 14; LR-BRW-M-96 SH. 1, 2; LR-BRW-M-126 SH. 1, 3; LR-BRW-M-138 SH. 5A, 5B, 8; LR-BRW-M-151 SH. 1
RADIOACTIVE DRAIN SYSTEM	RDS	<b>LR-BRW-M-48 SH. 6A, 6B, 6C, 7, 8, 16, 17, 19, 23, 29, 44, 54;</b> LR-BRW-M-60 SH. 1B, 4, 6; LR-BRW-M-61 SH. 5, 6; LR-BRW-M-62 SH. 1; LR-BRW-M-63 SH. 1B, 1C; LR-BRW-M-64 SH. 1, 2, 4A; LR-BRW-M-65 SH. 2C, 4; LR-BRW-M-66 SH. 4A, 4B; LR-BRW-M-68 SH. 1A, 6; <b>LR-BRW-M-70 SH. 1, 2, 3;</b> LR-BRW-M-135 SH. 1B, 4, 6; LR-BRW-M-136 SH. 5, 6; LR-BRW-M-137 SH. 1; LR-BRW-M-138 SH. 1, 2, 4B; <b>LR-BRW-M-140 SH. 1A, 5; LR-BRW-M-141 SH. 1</b>
RADWASTE SYSTEM	RWS	<b>LR-BRW-M-48 SH. 2, 3A, 3B, 4B, 6A, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20A, 20B, 21A, 21B, 21C, 31, 37, 38, 39, 40, 45, 52, 53, 54, 56, 57;</b> LR-BRW-M-49 SH. 1A; <b>LR-BRW-M-59 SH. 1A, 1B;</b> LR-BRW-M-63 SH. 1B, 1C; LR-BRW-M-64 SH. 6, 7; LR-BRW-M-65 SH. 1A, 1B, 4; <b>LR-BRW-M-69 SH. 1, 2;</b> LR-BRW-M-82 SH. 13, 15; LR-BRW-M-138 SH. 6, 7; LR-BRW-M-149 SH. 1
REACTOR COOLANT SYSTEM	RCS	LR-BRW-M-55 SH. 15; <b>LR-BRW-M-60 SH. 1A, 1B, 2, 3, 4, 5, 6, 7A, 7B, 8;</b> LR-BRW-M-61 SH. 2, 3, 4, 5, 6; LR-BRW-M-62 SH. 1; LR-BRW-M-64 SH. 1, 2, 5; LR-BRW-M-66 SH. 1B; LR-BRW-M-68 SH. 1A, 1B; <b>LR-BRW-M-135 SH. 1A, 1B, 2, 3, 4, 5, 6, 7, 8;</b> LR-BRW-M-136 SH. 2, 3, 4, 5, 6; LR-BRW-M-137 SH. 1; LR-BRW-M-138 SH. 1, 2, 5A, 5C; LR-BRW-M-139 SH. 1; LR-BRW-M-140 SH. 1A, 1B
REACTOR VESSEL	RXV	<b>LR-BRW-M-80 SH. 1B, 5; LR-BRW-M-135 SH. 1B, 5</b>
RESIDUAL HEAT REMOVAL SYSTEM	RHR	LR-BRW-M-61 SH. 4; <b>LR-BRW-M-62 SH. 1;</b> LR-BRW-M-64 SH. 5; LR-BRW-M-68 SH. 1A; LR-BRW-M-136 SH. 4; <b>LR-BRW-M-137 SH. 1;</b> LR-BRW-M-138 SH. 5A; LR-BRW-M-140 SH. 1A
SAFETY INJECTION SYSTEM	SIS	LR-BRW-M-46 SH. 1C; <b>LR-BRW-M-61 SH. 1A, 1B, 2, 3, 4, 5, 6;</b> LR-BRW-M-62 SH. 1; LR-BRW-M-63 SH. 1A; LR-BRW-M-64 SH. 4A, 4B; LR-BRW-M-65 SH. 2C; LR-BRW-M-68 SH. 1B; LR-BRW-M-70 SH. 1; LR-BRW-M-129 SH. 1C; <b>LR-BRW-M-136 SH. 1, 2, 3, 4, 5, 6;</b> LR-BRW-M-137 SH. 1; LR-BRW-M-138 SH. 4A; LR-BRW-M-140 SH. 1B; LR-BRW-M-141 SH. 1
SAMPLING SYSTEM	SPS	LR-BRW-M-48 SH. 2, 4B, 5B, 6A, 7, 17, 54; LR-BRW-M-65 SH. 2A, 2B; <b>LR-BRW-M-68 SH. 1A, 1B, 2, 2A, 6, 7, 8; LR-BRW-M-140 SH. 1A, 1B, 5, 6, 7</b>
SERVICE WATER SYSTEM	SWS	LR-BRW-M-37 SH. 1; <b>LR-BRW-M-42 SH. 1A, 1B, 2A, 2B, 3, 4, 5A, 5B, 6; LR-BRW-M-43 SH. 2A, 2B, 3, 4, 6, 7, 8;</b> LR-BRW-M-48 SH. 9, 10, 11, 12, 13, 14, 38, 39, 40; LR-BRW-M-51 SH. 3A, 3B, 6; LR-BRW-M-56 SH. 6; LR-BRW-M-64 SH. 3A, 8; LR-BRW-M-65 SH. 2B; LR-BRW-M-66 SH. 3B; LR-BRW-M-68 SH. 2; LR-BRW-M-82 SH. 15; LR-BRW-M-93 SH. 3; LR-BRW-M-118 SH. 16; LR-BRW-M-122 SH. 1; LR-BRW-M-126 SH. 1, 2, 3; LR-BRW-M-127 SH. 1B, 2, 3; LR-BRW-M-138 SH. 3A, 8; LR-BRW-M-152 SH. 43
SPENT FUEL COOLING SYSTEM	SFC	LR-BRW-M-61 SH. 1B; <b>LR-BRW-M-63 SH. 1A, 1B, 1C;</b> LR-BRW-M-65 SH. 2B; LR-BRW-M-70 SH. 1; LR-BRW-M-74 SH. 2; LR-BRW-M-136 SH. 1; LR-BRW-M-141 SH. 1
STEAM GENERATORS	SGS	LR-BRW-M-35 SH. 1, 2; LR-BRW-M-36 SH. 1A, 1B, 1C, 1D; <b>LR-BRW-M-48 SH. 2, 5A, 5B; LR-BRW-M-60 SH. 1A, 2, 3, 4;</b> LR-BRW-M-68 SH. 8; LR-BRW-M-69 SH. 1; LR-BRW-M-120 SH. 1, 2A, 2B; LR-BRW-M-121 SH. 1A, 1B, 1C, 1D; <b>LR-BRW-M-135 SH. 1A, 2, 3, 4</b>
COMPOSITE SITE PLAN		<b>LR-BRW-S-01A</b>

CHANGE MARKER



PIPING DESIGN TABLE  
PIPING CLASSIFICATION  
SAFETY CATEGORY

PIPING CLASSIFICATION

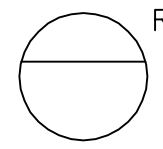
- A - ASME SECTION III, CLASS 1 PIPING
- B - ASME SECTION III, CLASS 2 PIPING
- C - ASME SECTION III, CLASS 3 PIPING
- D - SAFETY CATEGORY I PIPING, ANSI B31.1 EXCEPT AS NOTED OTHERWISE ON PIPING LINE LIST
- E - ASME SECTION I - BOILER EXTERNAL PIPING
- G - SAFETY CATEGORY I PIPING, NON-ASME OR UNDER THE JURISDICTION OF OTHER CODES
- H - SAFETY CATEGORY I INSTRUMENTATION TUBING & PIPING ANSI B31.1 WITH ADDITIONAL REQUIREMENTS

SAFETY CATEGORY

- I CATEGORY I, SAFETY RELATED - USED TO DESIGNATE STRUCTURES, SYSTEMS AND COMPONENTS CLASSIFIED FOR DESIGN PURPOSES AS SAFETY RELATED.
- II CATEGORY II, NON-SAFETY RELATED - USED TO DESIGNATE STRUCTURES, SYSTEMS AND COMPONENTS CLASSIFIED FOR DESIGN PURPOSES AS NON-SAFETY RELATED.

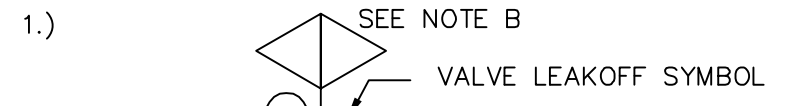
NOTES

- A. INSTRUMENTATION  
AN INSTRUMENT SEPARATION DIVISION IS ASSIGNED TO EVERY INSTRUMENT. THE DIVISION NUMBER IS SHOWN ADJACENT TO THE INSTRUMENT SYMBOL.

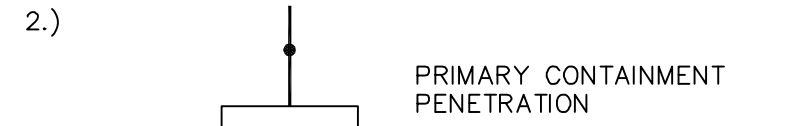


REFER TO THE INSTRUMENT INDEX - KEY TO USE & APPLICATION FOR THE CODE EXPLANATION, WHERE MORE THAN ONE DIVISION ASSIGNMENT APPLIES TO AN INSTRUMENT. ALL ASSIGNMENTS ARE SHOWN.

- B. WHERE A CLASS CHANGE MARKER IS SHOWN ON A VALVE LEAKOFF LINE, THE WELD JOINING THE VALVE NIPPLE TO THE PIPING SYSTEM SOCKET COUPLING SHALL MEET THE RULES OF CONSTRUCTION FOR THE PIPING SYSTEM DOWNSSTREAM OF THE MARKER.



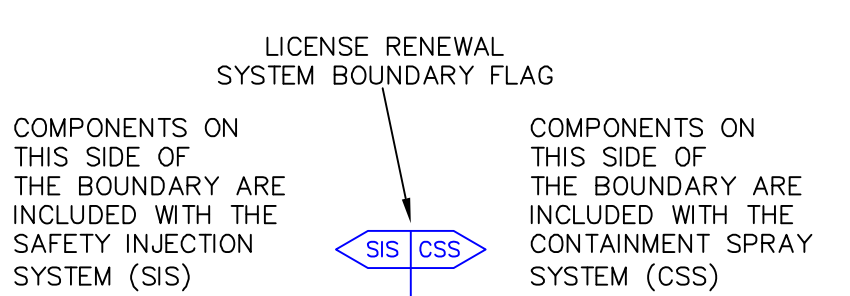
SEE NOTE B  
VALVE LEAKOFF SYMBOL



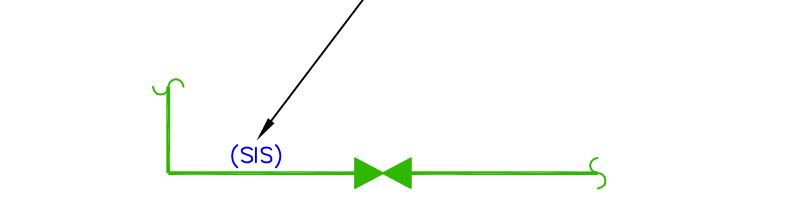
PRIMARY CONTAINMENT PENETRATION

PIPING INSTRUMENTATION PENETRATION NO.

TYPICAL BOUNDARY FLAG DETAIL



TYPICAL LICENSE RENEWAL SYSTEM IDENTIFICATION (USED AS NEEDED FOR CLARITY)

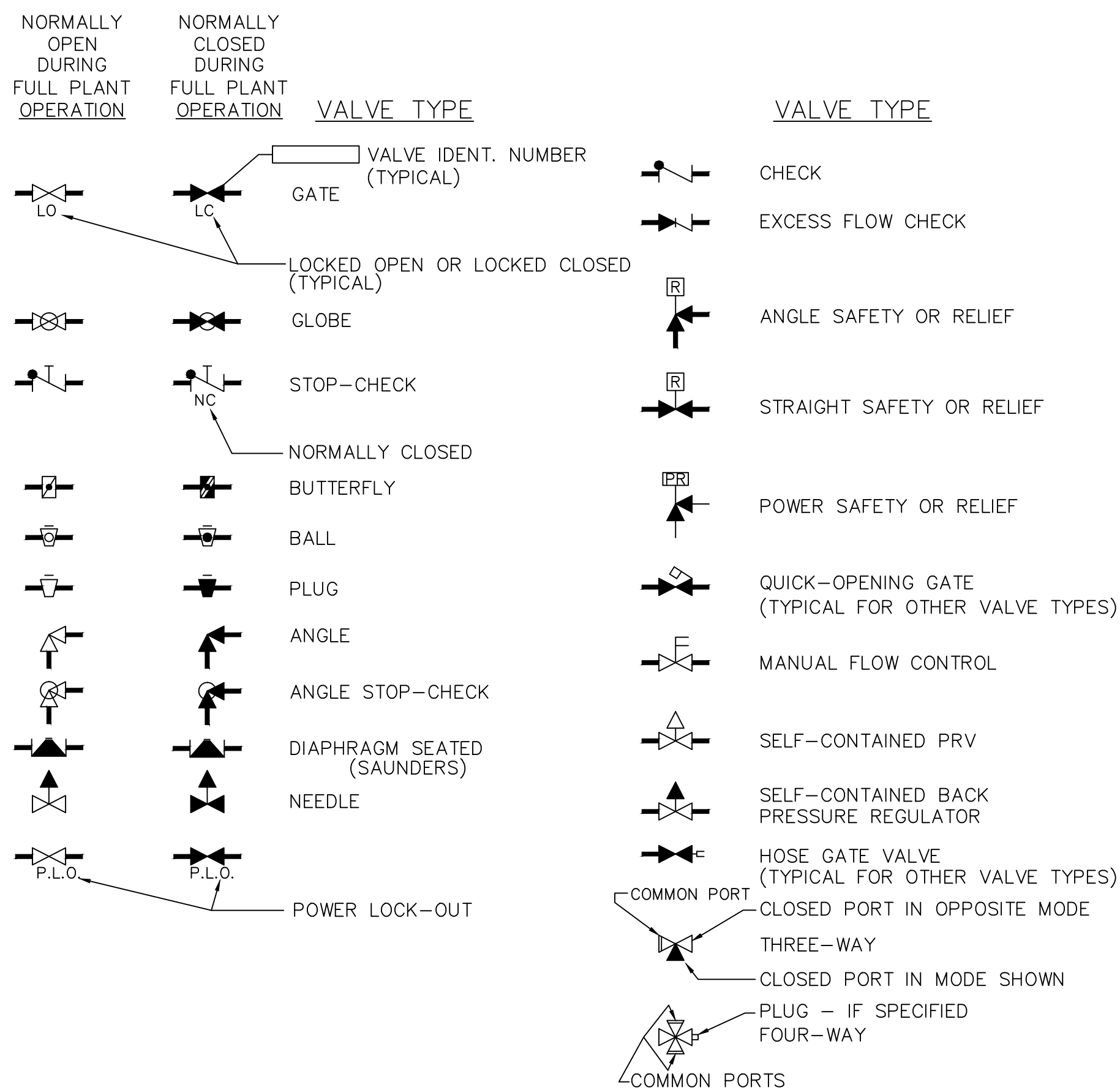


05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	C A M	J J K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING P&ID INDEX AND SYMBOLS UNIT 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-34	SHEET 1	0		



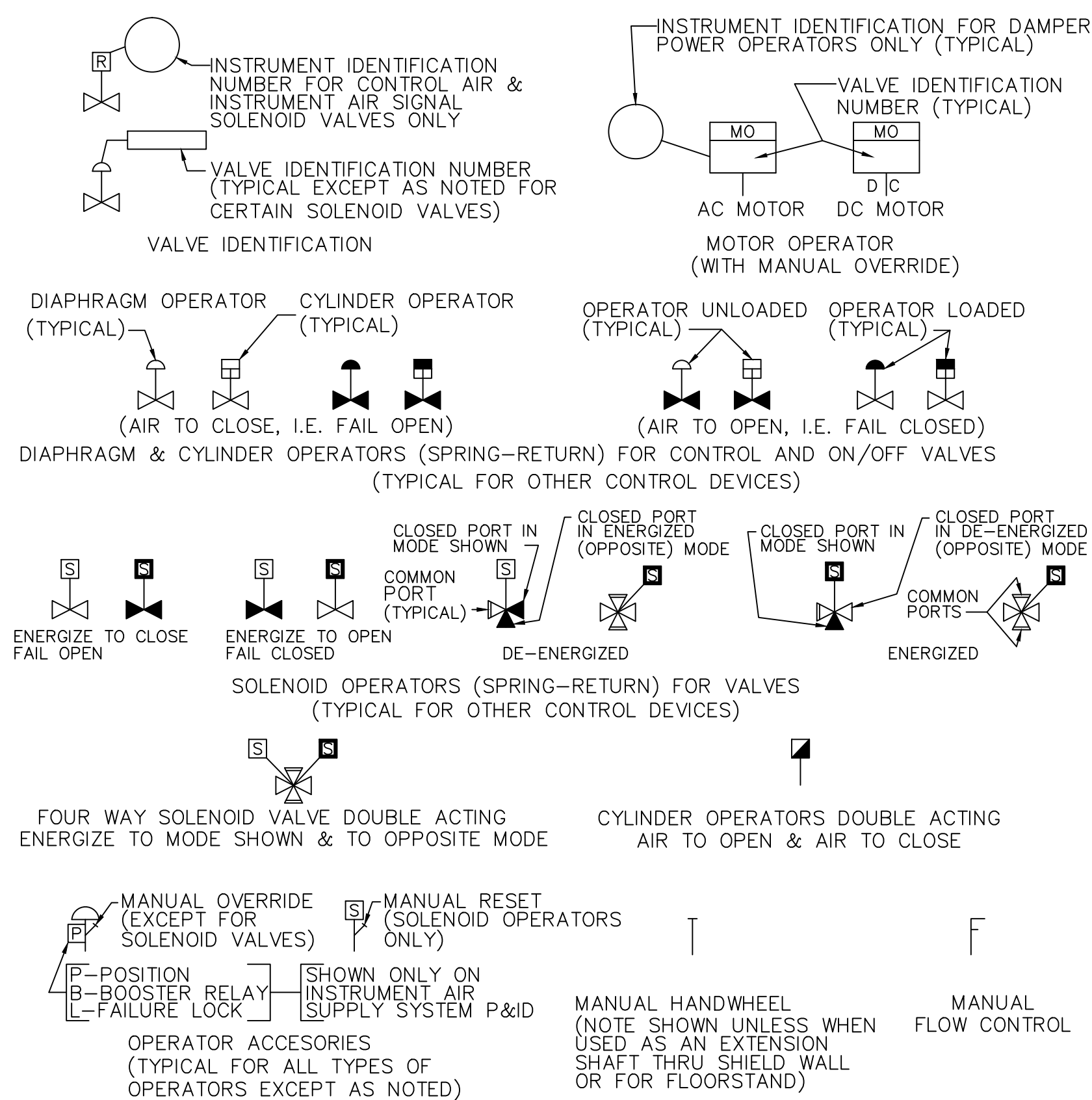
VALVE SYMBOLS

(THE FOLLOWING COMPONENT TYPES ARE EVALUATED AS "VALVE BODY" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.)



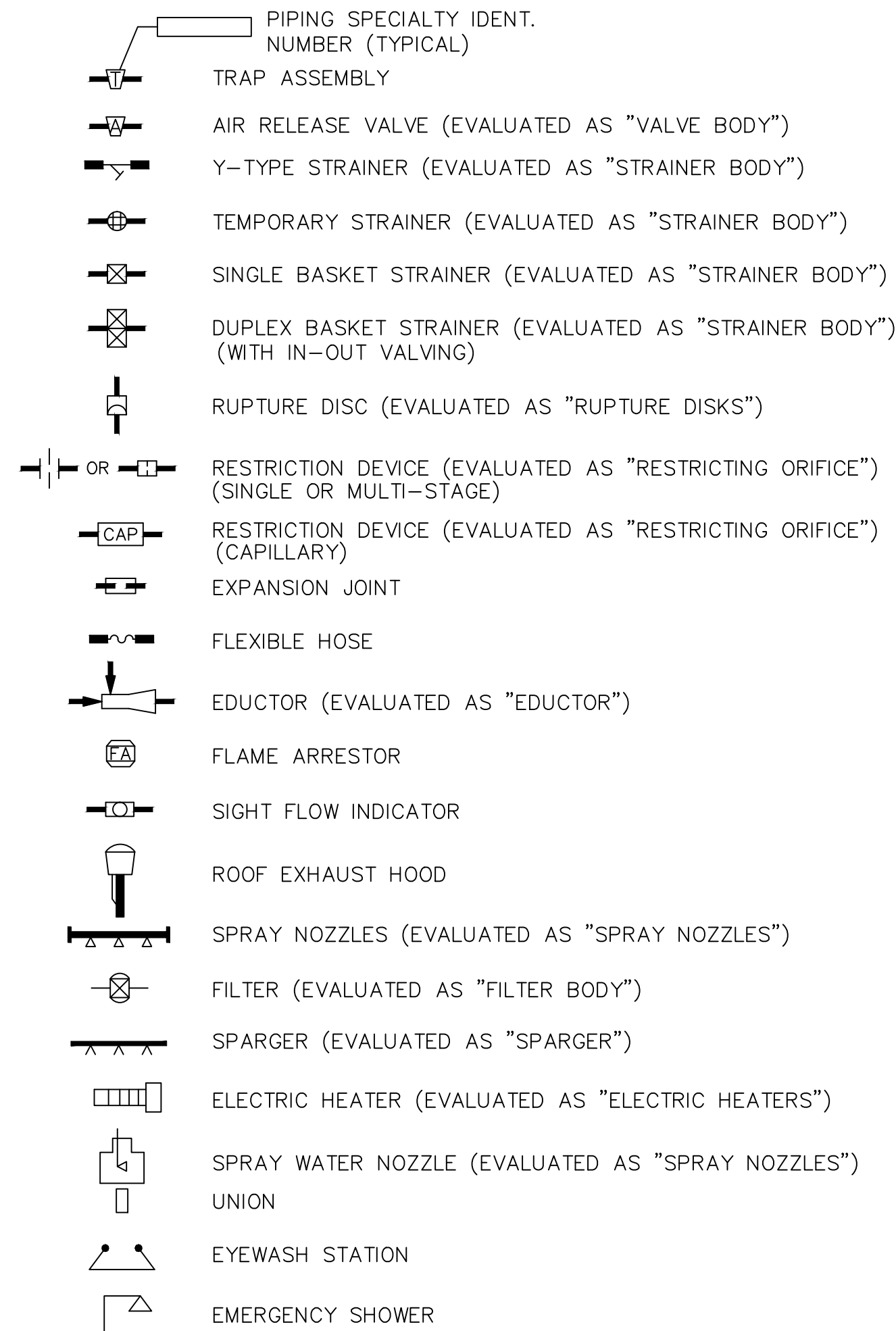
OPERATOR SYMBOLS

(VALVE OPERATORS ARE GENERALLY CONSIDERED ACTIVE AND, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.)



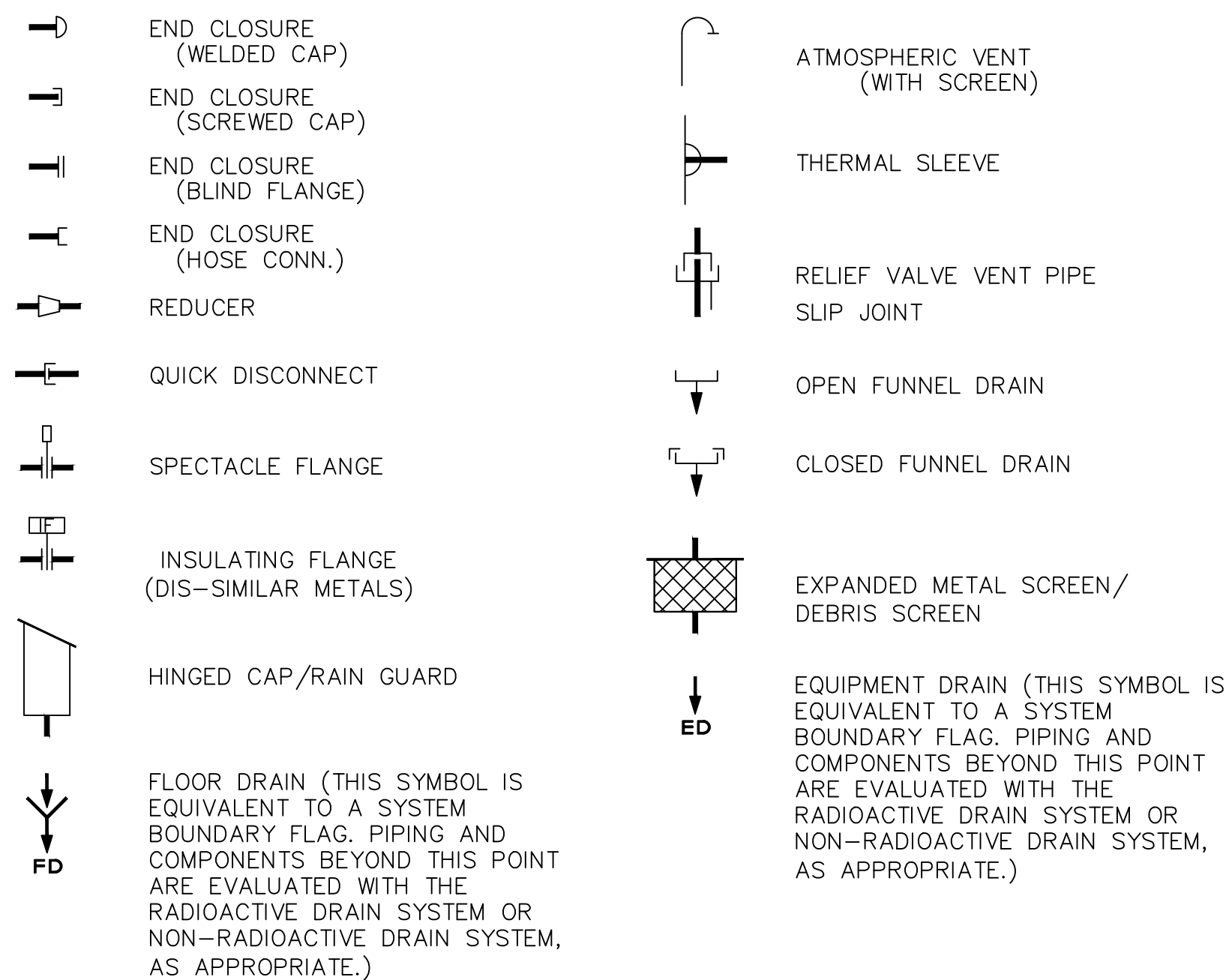
PIPING SPECIALTY SYMBOLS

(THE FOLLOWING COMPONENT TYPES ARE EVALUATED AS "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW EXCEPT AS SPECIFIED BELOW OR AS SPECIFIED ON THE LICENSE RENEWAL BOUNDARY DRAWINGS.)



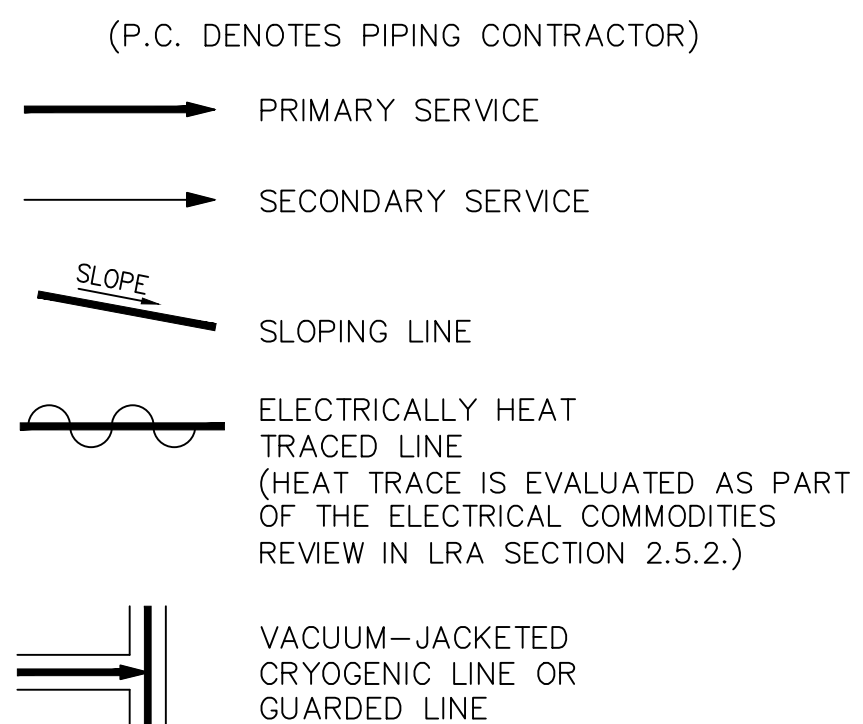
PIPING LINE COMPONENT SYMBOLS

(THE FOLLOWING COMPONENT TYPES ARE EVALUATED AS "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.)

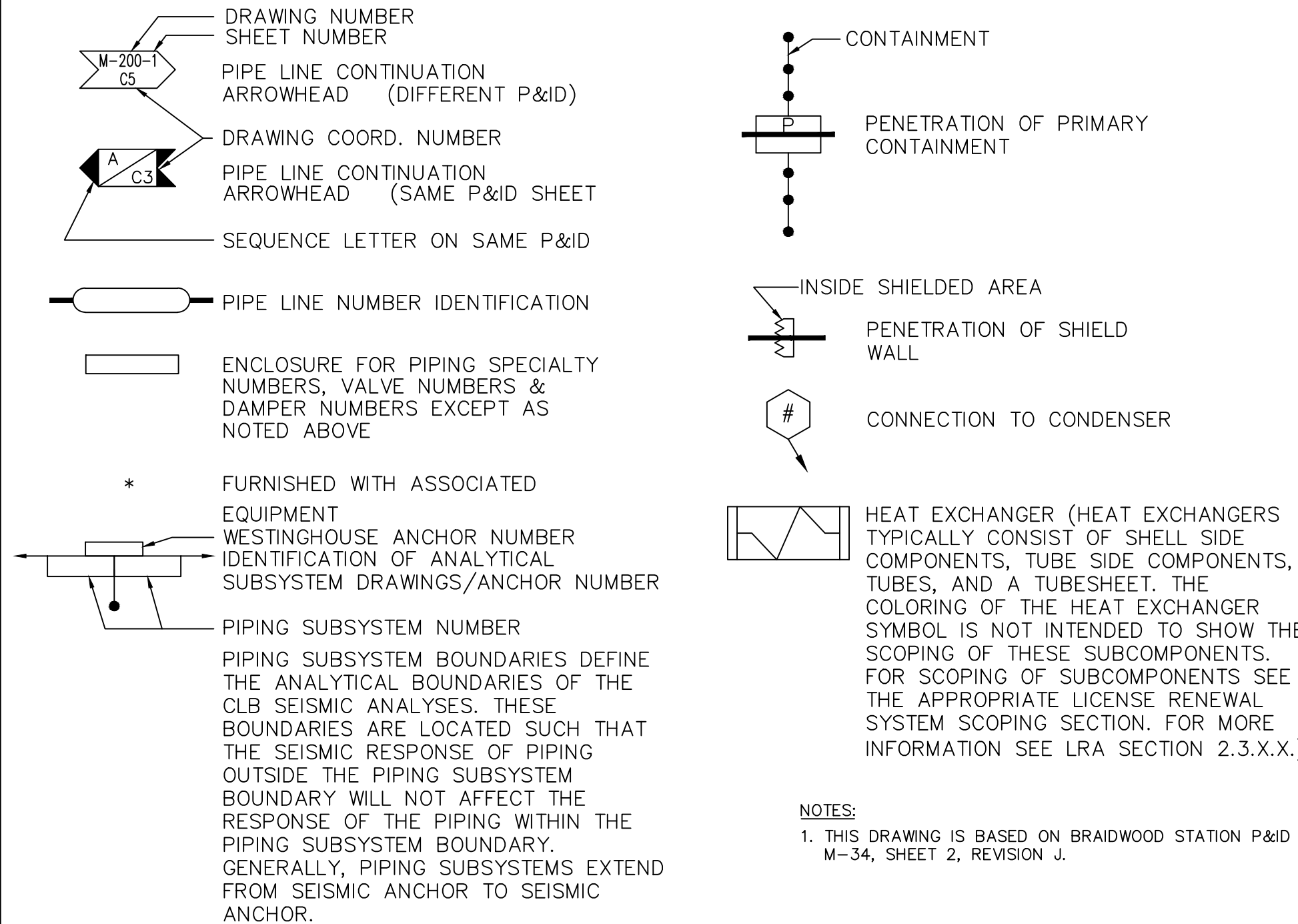


PIPING LINE SYMBOLS

(THE FOLLOWING COMPONENT TYPES ARE EVALUATED AS "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.)



MISCELLANEOUS SYMBOLS

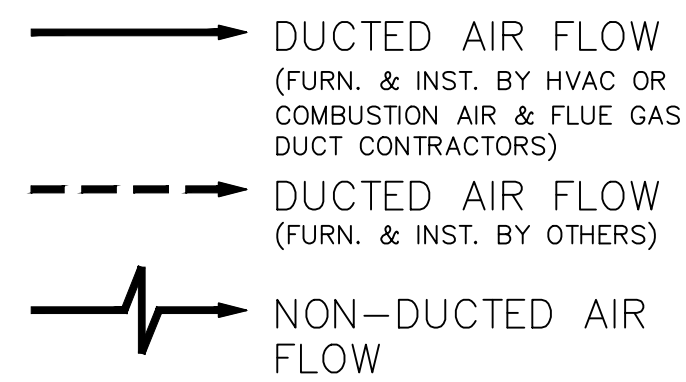


0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	C	A	J	A	R	P
NO	DATE	DESCRIPTION			RVD	CKD	APD			
MECHANICAL										
LICENSE RENEWAL BOUNDARY DRAWING P & ID INDEX & SYMBOLS UNITS 1 & 2										
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.										
LR-BRW-M-34					SHEET 2			0		

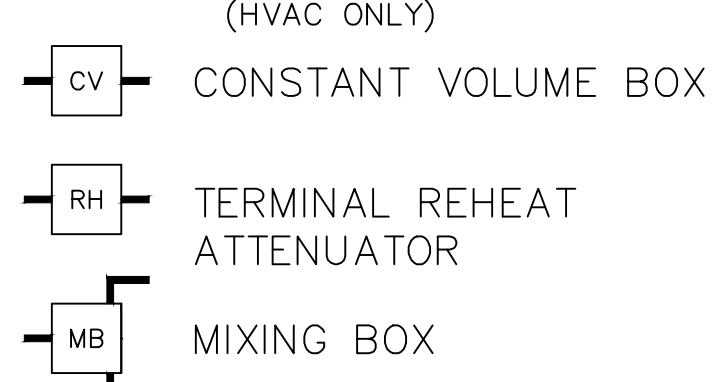
HVAC, COMBUSTION AIR & FLUE GAS SYMBOLS

(THE FOLLOWING COMPONENT TYPES ARE EVALUATED AS "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.)

DUCTS

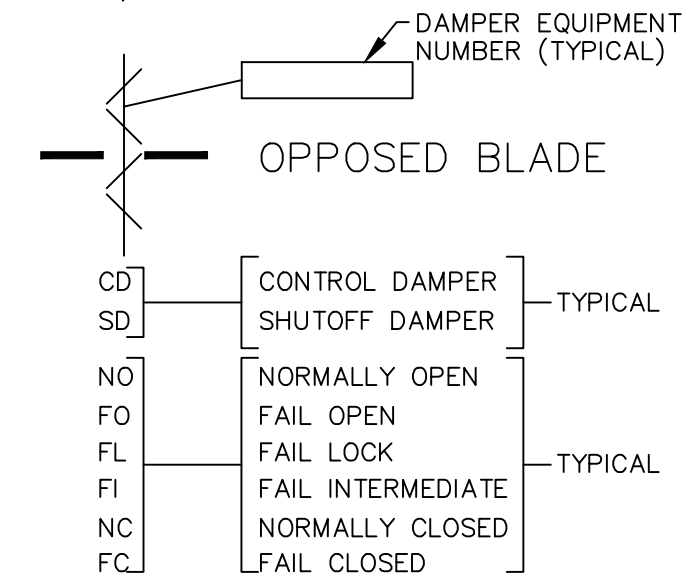


EQUIPMENT



DAMPERS

(DAMPERS ARE CONSIDERED ACTIVE AND, THEREFORE, NOT SUBJECT TO AGING MANAGEMENT REVIEW. THE PASSIVE HOUSINGS ARE EVALUATED AS "DAMPER HOUSING" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.)



ABBREVIATIONS

- SA SUPPLY AIR, RA RETURN AIR, EA EXHAUST AIR, OA OUTSIDE AIR, MB MIXING BOX, CV CONSTANT VOLUME BOX, RH TERMINAL REHEAT ATTENUATOR, H HOT DUCT, C COLD DUCT

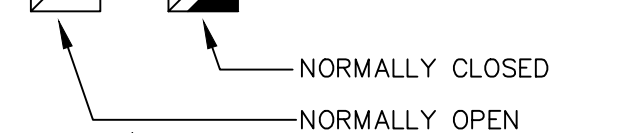
ABBREVIATIONS

- PA PRIMARY AIR, SA SECONDARY AIR, TA TERTIARY AIR, FG FLUE GAS, GR GAS RECIRCULATION, TM TEMPERING AIR, SL SEAL AIR, IG IGNITOR AIR

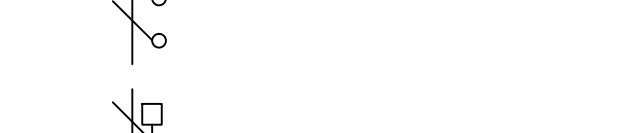
PARALLEL BLADE



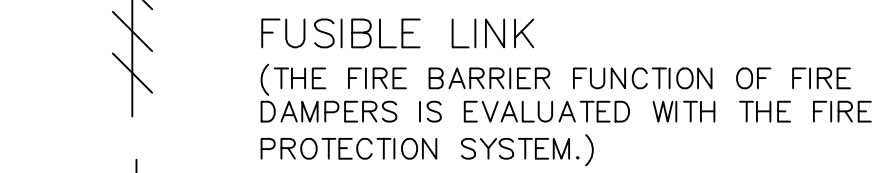
BUTTERFLY



GRAVITY SHUTTER



FIRE DAMPER WITH FUSIBLE LINK

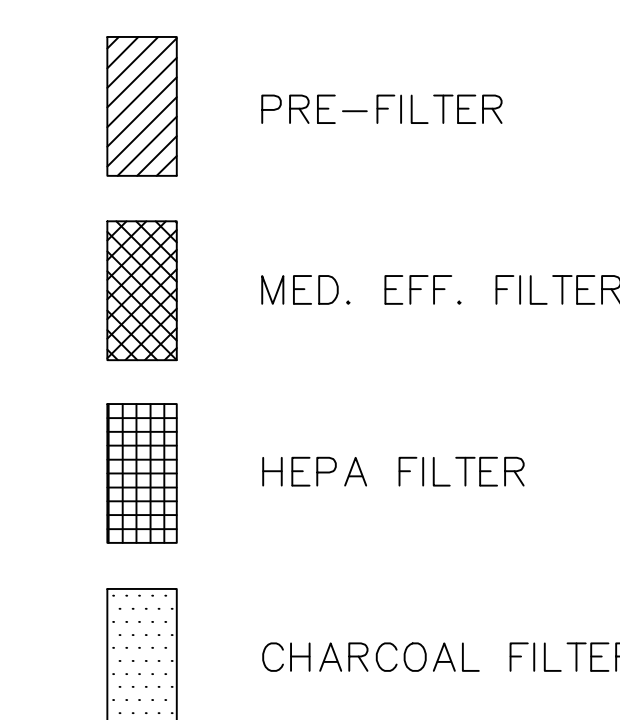


GUILLOTINE DAMPER

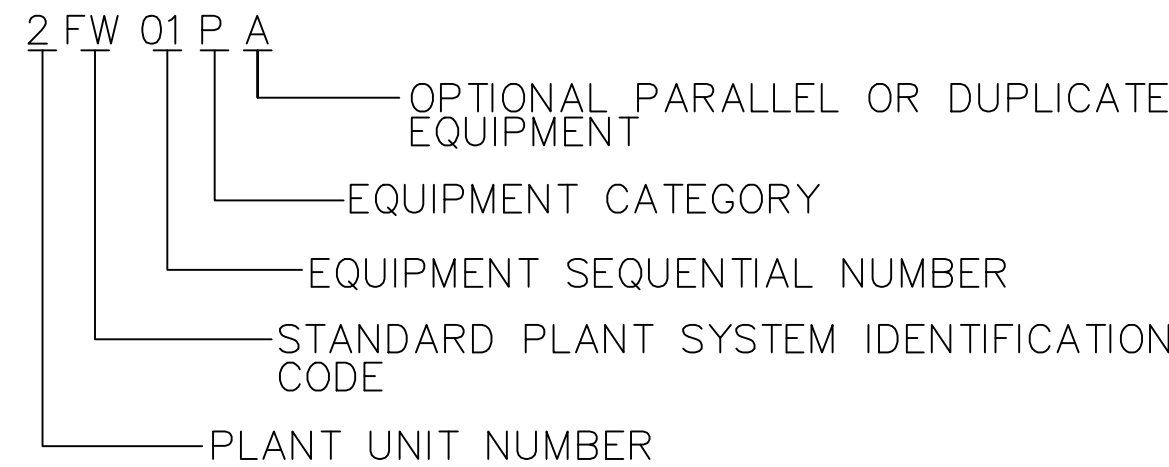


FILTERS

(HVAC FILTERS ARE PERIODICALLY REPLACED AND, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW. THE PASSIVE HOUSINGS ARE EVALUATED AS "FILTER HOUSING" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.)



EQUIPMENT NUMBER (NOTE 1 & 2)

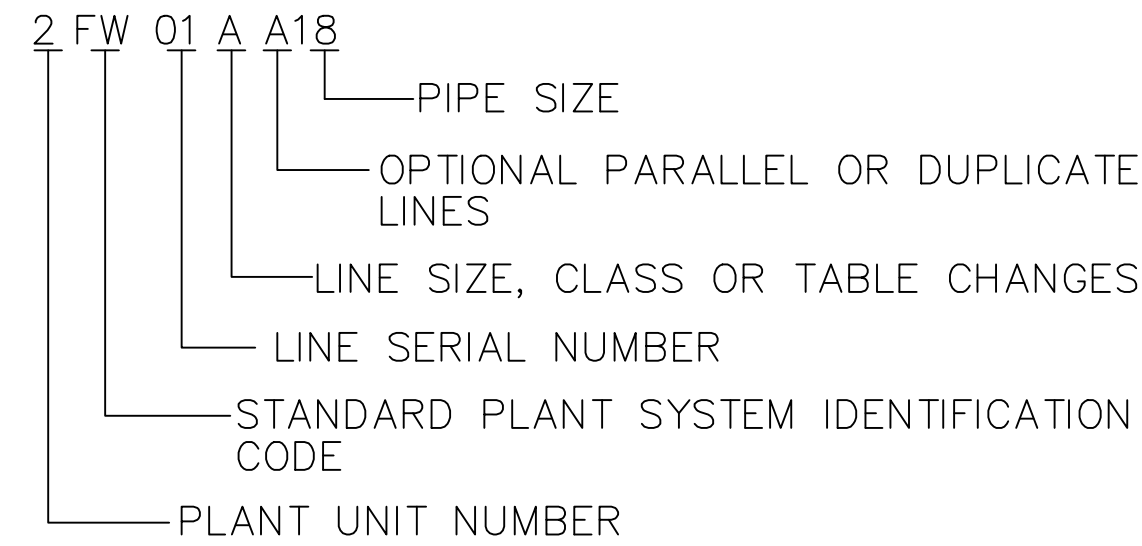


PLANT EQUIPMENT CATEGORIES (NOTE 1&2)

- A EXCHANGERS, CONDENSERS, COOLING TOWERS, B BOILERS, STEAM GENERATORS, AUXILIARY BOILERS, C COMPRESSORS, BLOWERS, VACUUM PUMPS, FANS, REFRIGERATION UNITS, INCLUDING DRIVERS, D DEMINERALIZERS, ABSORBERS, ADSORBERS, CLARIFIERS, AIR DRYERS, EVAPORATORS, E ELECTRICAL EQUIPMENT-SWITCHGEAR, MOTOR CONTROL CENTERS, TRANSFORMERS, ETC., F FILTERS, STRAINERS, TRAVELING SCREENS, RAKES, COLD TRAPS, PRECIPITATORS, DUST COLLECTORS, PURIFIERS, CENTRIFUGES, G FUEL HANDLING EQUIPMENT INCLUDING NUCLEAR AND COAL FUELS, CRANES, HOISTS, BALERS, INCLUDING DRIVERS, H PIPE SUPPORTING ELEMENTS INCLUDING HANGERS, SUPPORTS, SNUBBERS, RESTRAINTS, ETC., J INSTRUMENT AND CONTROL BOARDS, PANELS AND CABINETS, K TURBINES, TURBINE-GENERATORS, DIESEL-GENERATORS, DIESEL ENGINES, FLUID DRIVES, GEAR REDUCERS, M PIPING SPECIALTIES - TRAPS, HOSES, EXPANSION JOINTS, RESTRICTION ORIFICES, ETC., P PUMPS, INCLUDING DRIVERS, R REACTOR AND REACTOR CONTROL DEVICES, S SPECIAL PACKAGED ITEMS OR SYSTEMS, T TANKS, X MISCELLANEOUS AIR HANDLING DEVICES, Y DAMPERS

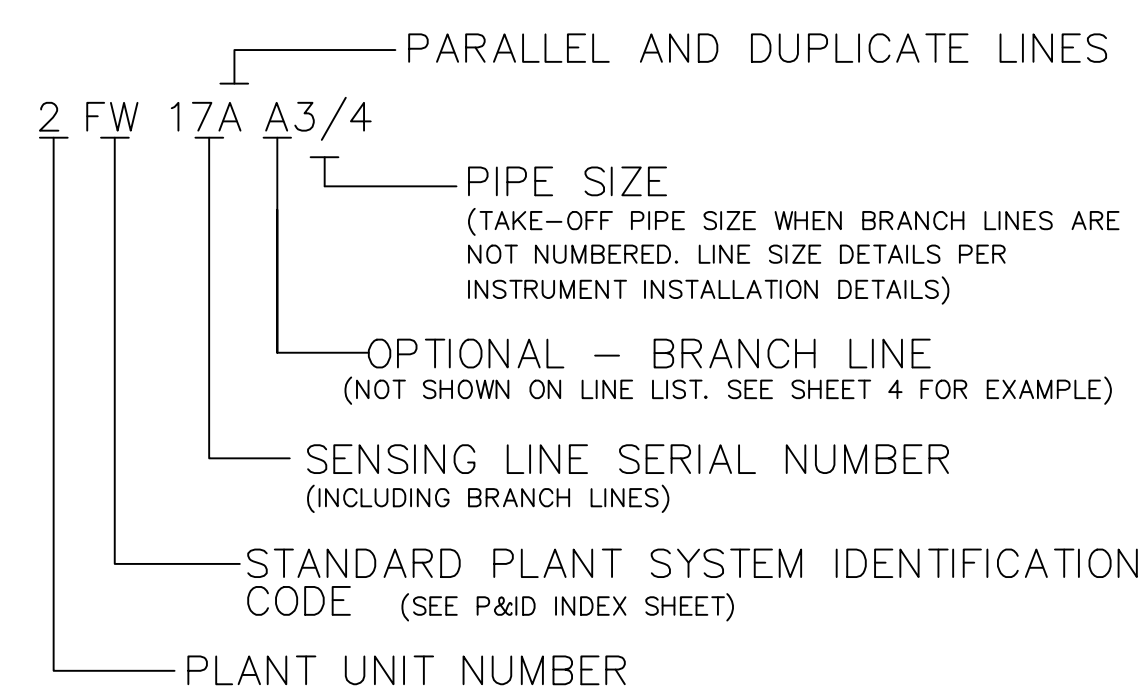
PIPE LINE NUMBER

(EXCLUDING INSTRUMENT SENSING & SIGNAL LINES)

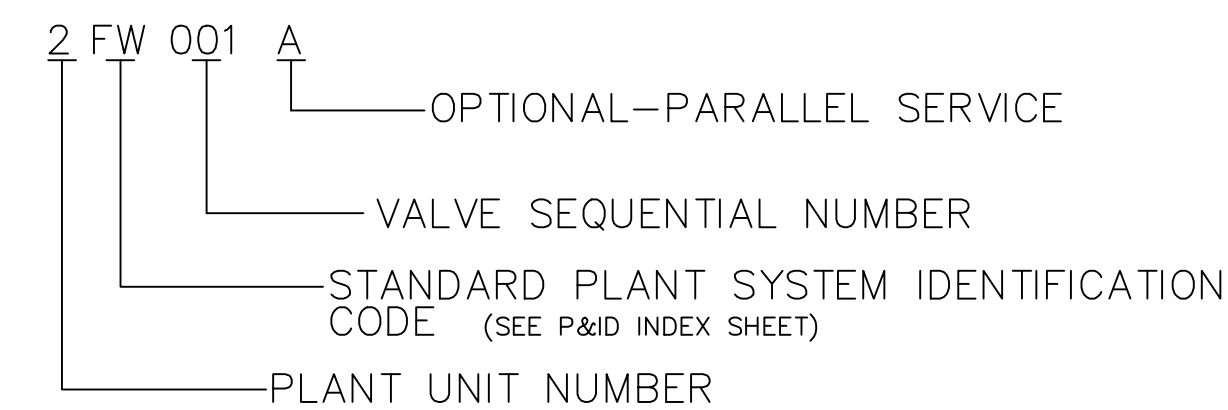


INSTRUMENT SENSING PIPELINE NUMBER

(EXCLUDING CAPILLARY FILLED LINES)

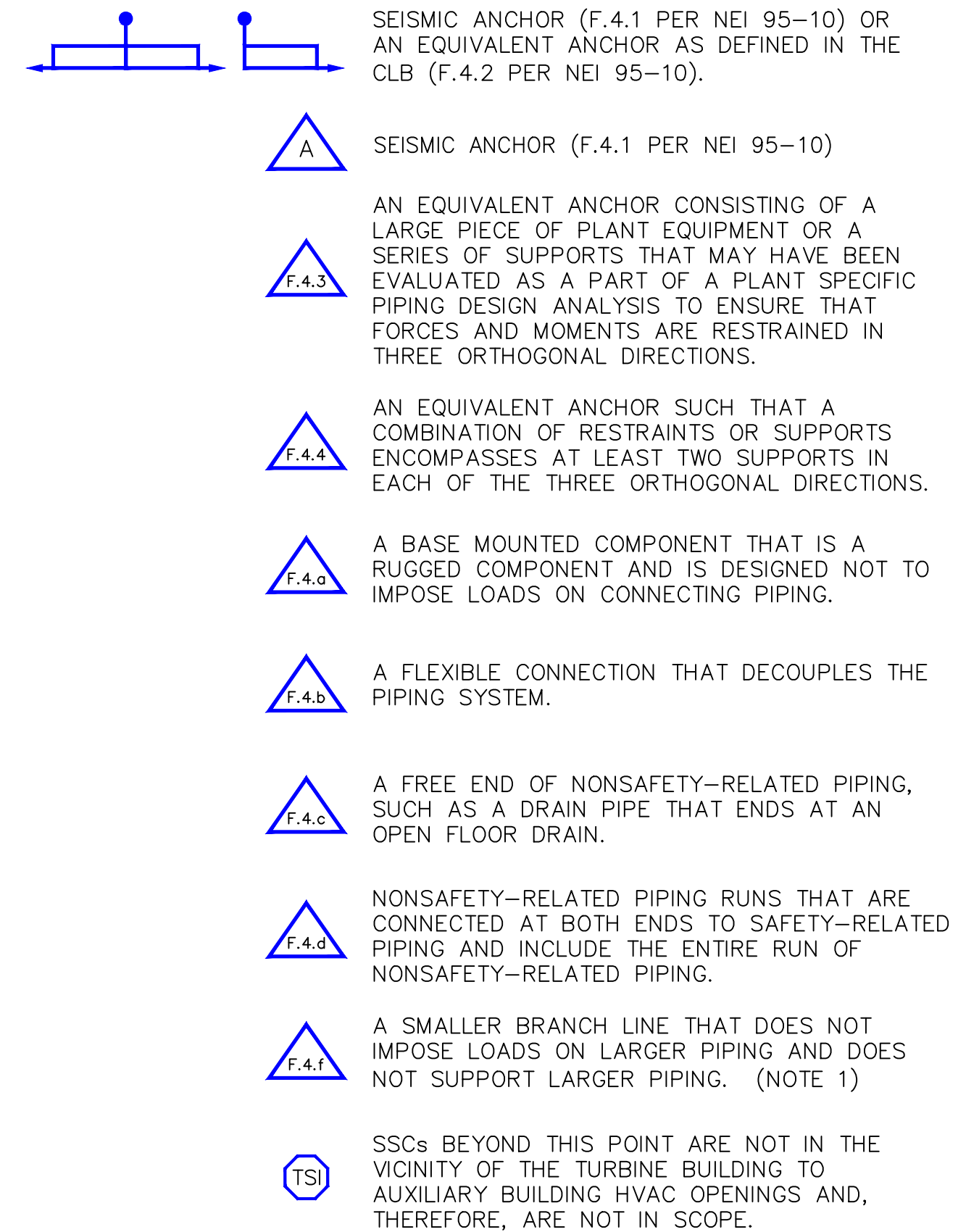


VALVE NUMBER (NOTE 1 & 2)



NOTES: 1. IN CERTAIN CASES VENDOR NUMBERS MAY BE USED IN LIEU OF THIS FORMAT. SEE P&ID INDEX SHEET FOR SUCH EXCEPTIONS. 2. IN CERTAIN CASES A SUFFIX NUMBER (IE,-1,2) WILL BE ADDED TO IDENTIFY SEPARATION OF DIVISIONS ON INSTRUMENTS, VALVES AND EQUIPMENT NUMBERS.

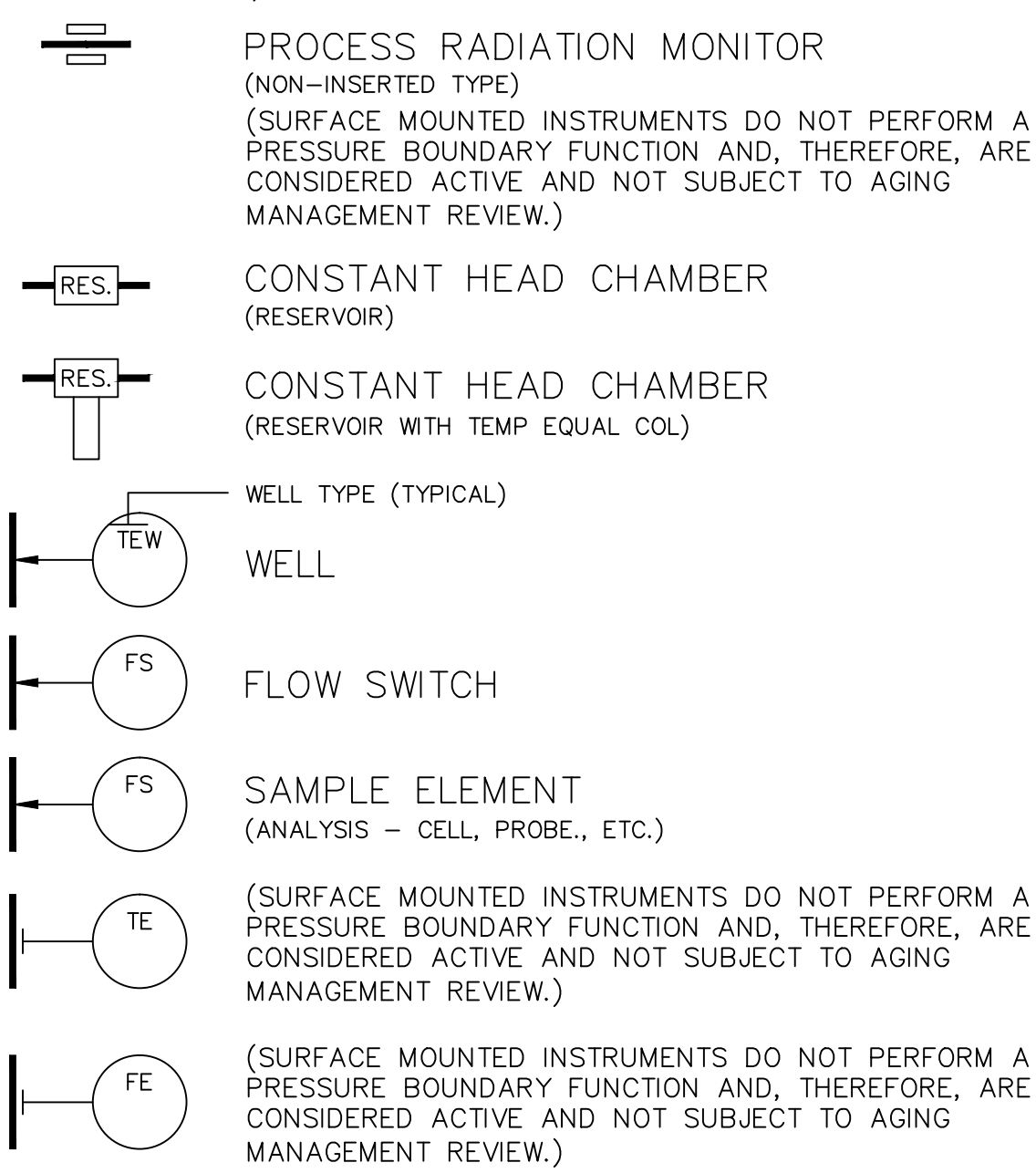
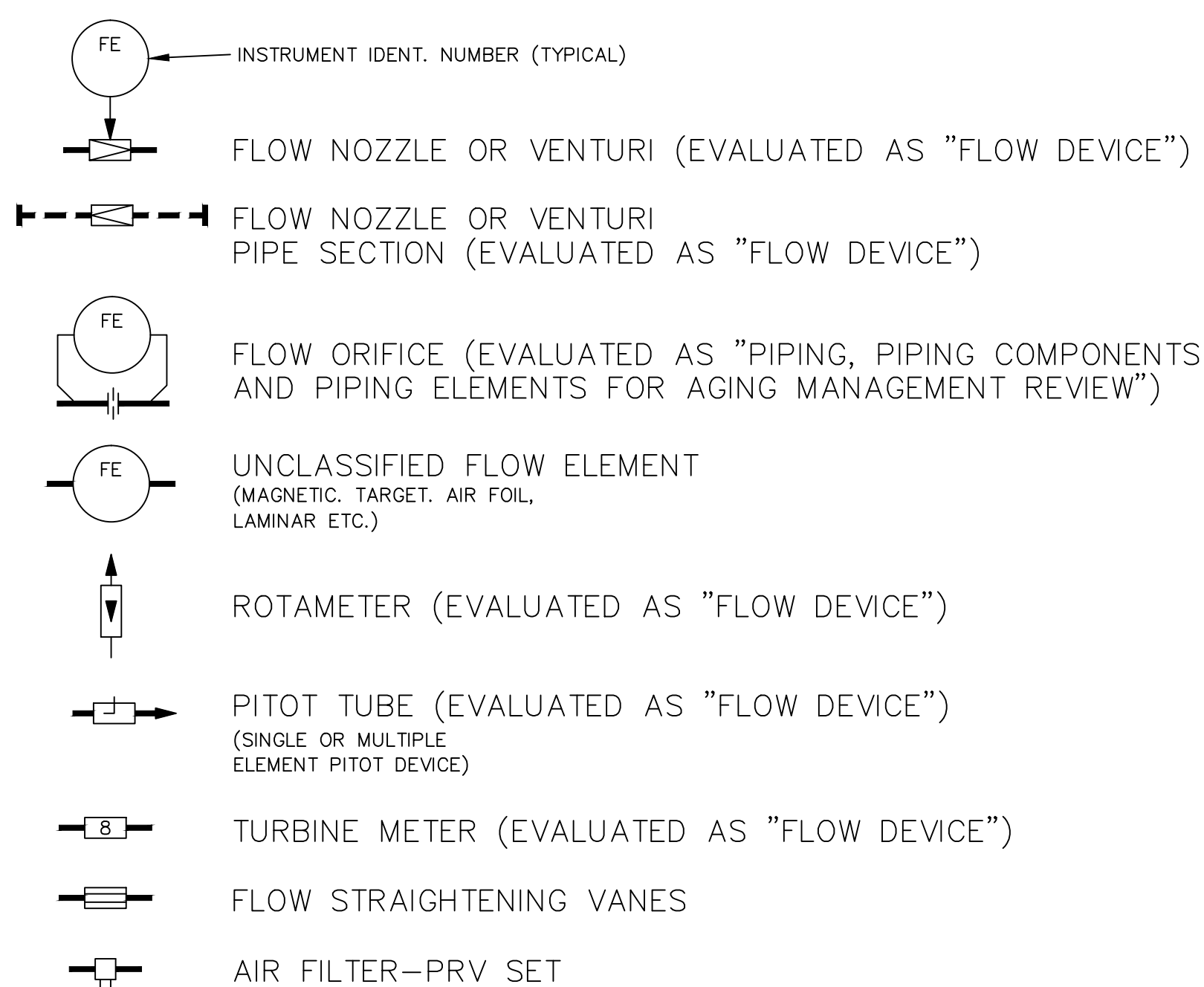
(a)(2) TERMINATION SYMBOLS



NOTE 1: VALVE LEAKOFF LINES (AS SHOWN ON LR-BRW-M-34, SHEET 1, A-3) ARE CONSIDERED SMALLER BRANCH LINES THAT DO NOT IMPOSE LOADS AND DO NOT SUPPORT THE LARGER PROCESS PIPING. NO (a)(2) TERMINATION SYMBOL WAS USED TO IDENTIFY THESE LOCATIONS.

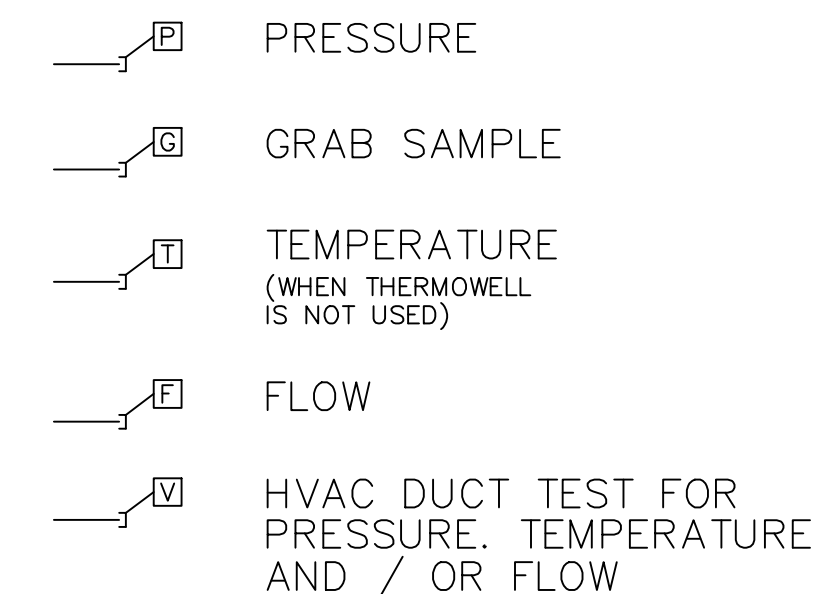
PIPE LINE INSTRUMENT SYMBOLS

(THE FOLLOWING COMPONENT TYPES ARE EVALUATED AS "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW EXCEPT AS SPECIFIED BELOW OR AS SPECIFIED ON THE LICENSE RENEWAL BOUNDARY DRAWINGS.)



TEST CONNECTIONS

(THE FOLLOWING COMPONENT TYPES ARE EVALUATED AS "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.)

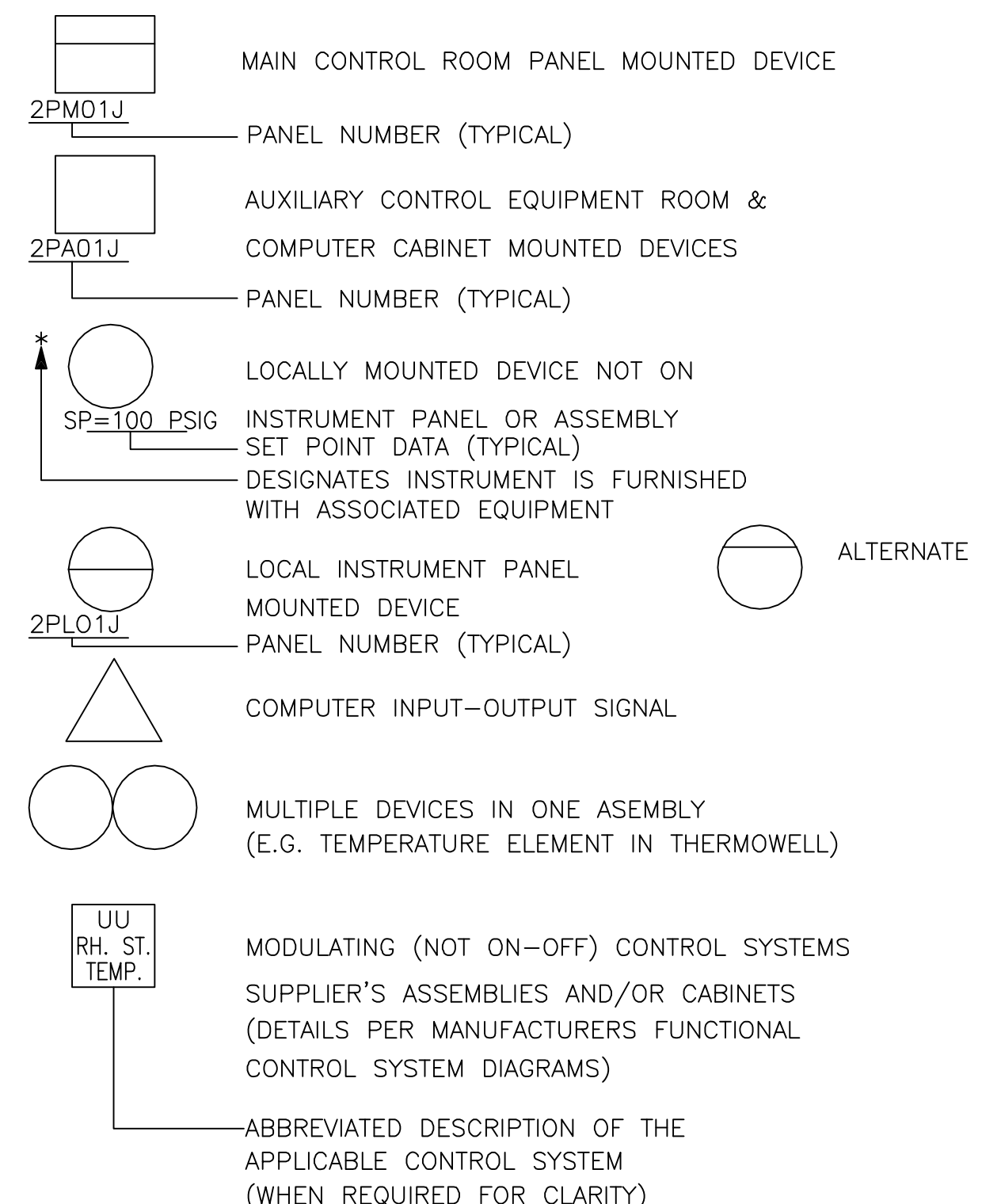


NOTES: 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-34, SHEET 3, REVISION D.

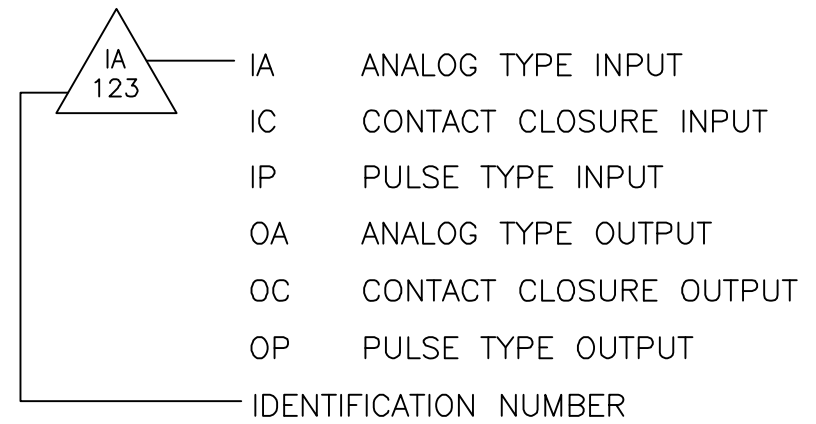
Table with columns for Date, Description, RVD, CKD, APD, Revision, and drawing title: LICENSE RENEWAL BOUNDARY DRAWING P&ID INDEX & SYMBOLS UNIT 1 & 2.



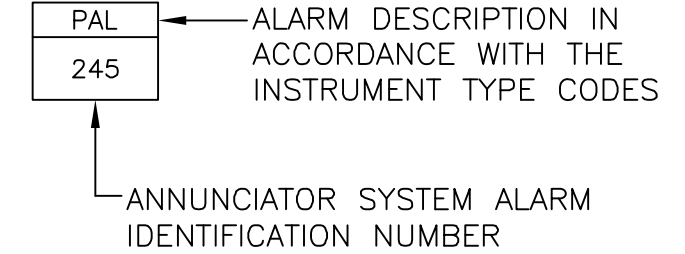
INSTRUMENT & CONTROL DEVICE SYMBOLS



COMPUTER INPUT-OUTPUT SIGNAL NUMBER

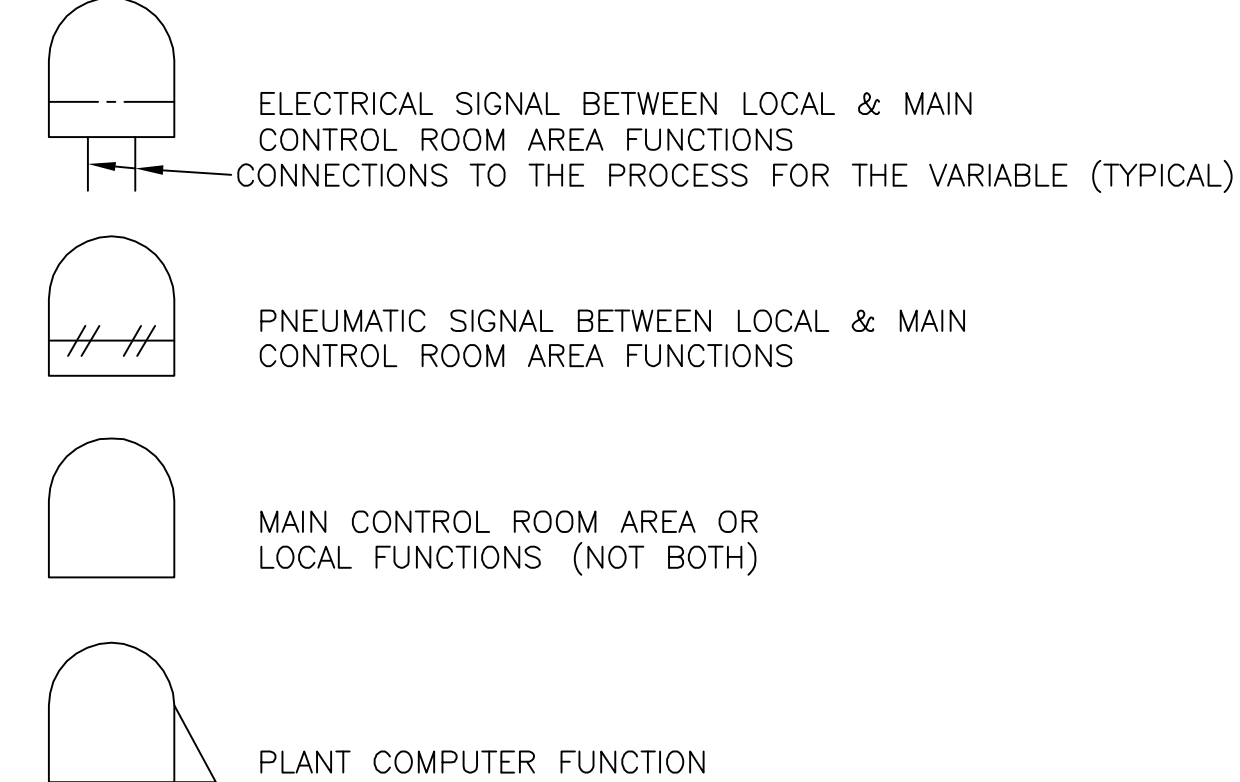


ANNUNCIATOR ALARM IDENTIFICATION NUMBER

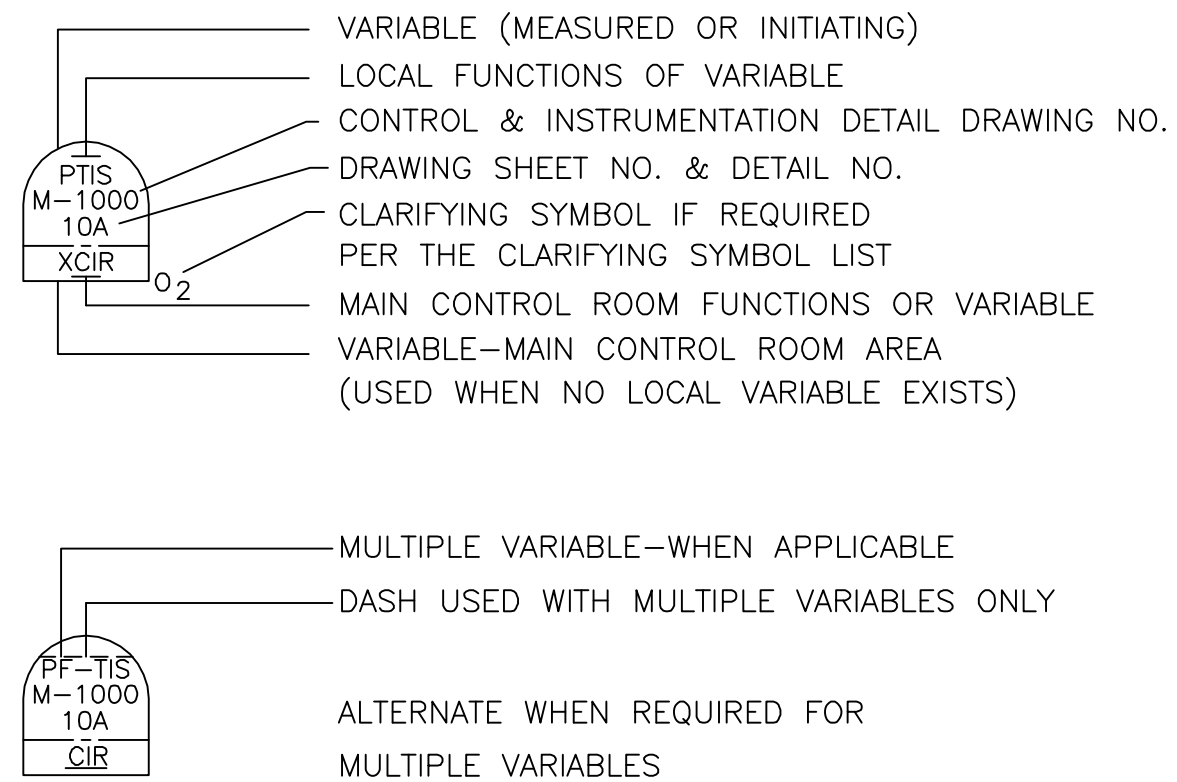


CONTROL & INSTRUMENTATION FUNCTION SYMBOLS & CODES

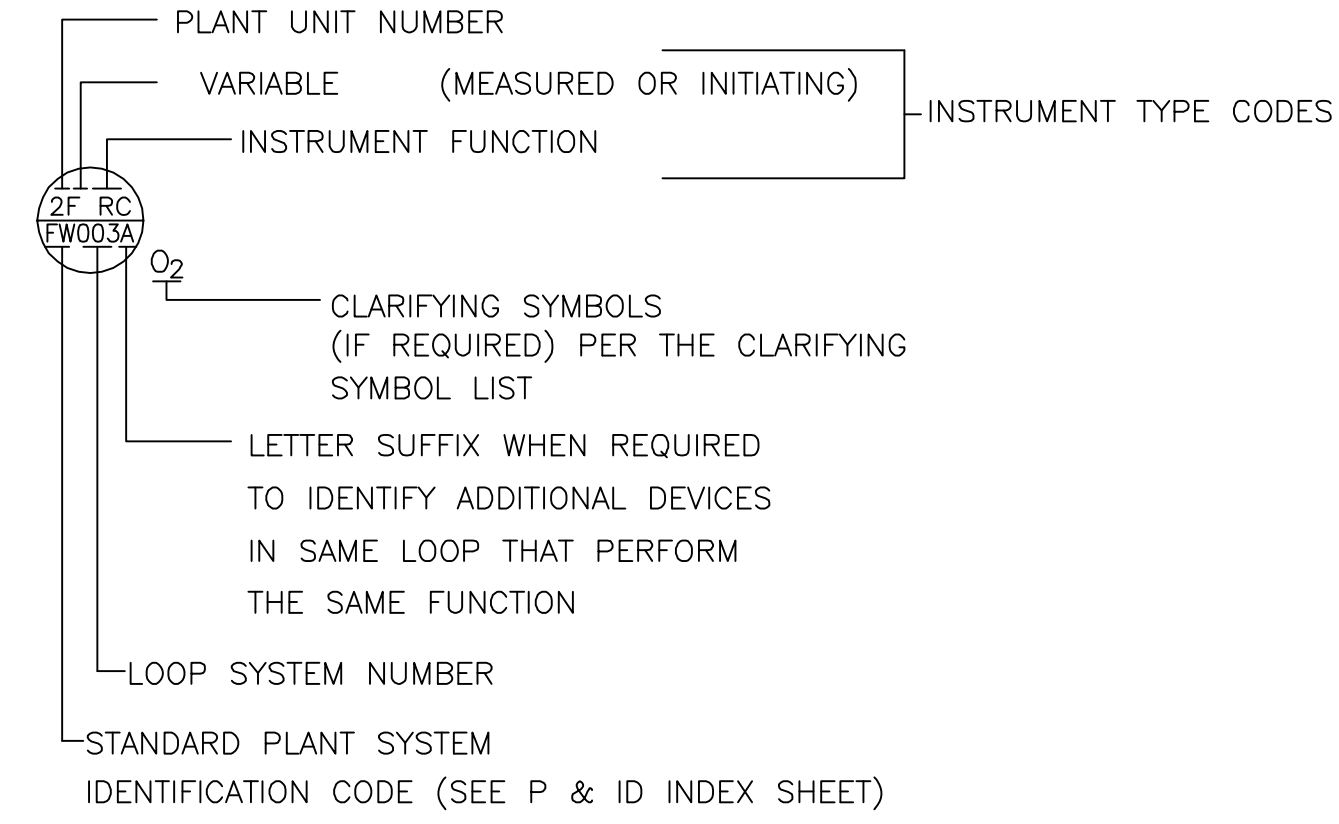
FUNCTION SYMBOLS



FUNCTION SYMBOL CODES



INSTRUMENT & CONTROL DEVICE NUMBERS



CLARIFYING SYMBOL LIST

A	ANALOG SIGNAL	LP	LOW PASS
ADD	ADD	MAX	MAXIMUM
AVG	AVERAGE	MIN	MINIMUM
BI	BIAS	N 2	NITROGEN
CO 2	CARBON DIOXIDE	NA	SODIUM
D	DIGITAL	NAK	SODIUM POTASSIUM
DIFF	SUBTRACT	N <sub>2</sub> H <sub>4</sub>	HYDRAZINE
DIR	DIRECT ACTING	O 2	OXYGEN
FC	FAIL CLOSED	PH	PH ANALYSIS
FI	FAIL INTERMEDIATE	RES	RESET
FL	FAIL LOCKED	REV	REVERSE ACTING
FO	FAIL OPEN	SI	SILICA
H 2	HYDROGEN	SM	SMOKE OR IONIZATION
HE	HELIUM	SP	SET POINT
HL	HIGH LIMIT	SQ. RT	SQUARE ROOT
HP	HIGH PASS	TURB	TURBIDITY
LL	LOW LIMIT	X	MULTIPLY

INSTRUMENT TYPE CODES

FIRST LETTER

VARIABLE (MEASURED OR INITIATING)

A	ANALYSIS
B	BURNER-FLAME
C	CONDUCTIVITY
D	DENSITY
E	VOLTAGE
F	FLOW
H	HAND (MANUAL)
I	CURRENT (ELEC.)
J	POWER (ELEC.)
K	TIME
L	LEVEL (LIQUID OR SOLID)
M	MOISTURE (HUMIDITY)
N	NEUTRON FLUX
P	PRESSURE OR VACUUM
R	RADIOACTIVITY
S	SPEED OR FREQUENCY
T	TEMPERATURE
U	MULTIVARIABLE
V	VIBRATION
W	WEIGHT
X	SPECIAL (REFER TO CLARIFYING SYMBOL)
Y	STRAIN
Z	POSITION

SECOND OR SUCCEEDING LETTERS

INSTRUMENT FUNCTION

A	ALARM
AC	ALARM CLOSED
AH	ALARM HIGH
AL	ALARM LOW
AO	ALARM OPEN
C	CONTROLLER (BLIND)
CK	CONTROLLER & HAND/AUTO
DA	DIFFERENTIAL ALARM
DC	DIFFERENTIAL CONTROLLER
DI	DIFFERENTIAL INDICATOR
DK	DIFFERENTIAL CONTROL STATION
DR	DIFFERENTIAL RECORDER
DS	DIFFERENTIAL SWITCH
DT	DIFFERENTIAL TRANSMITTER
DY	DIFFERENTIAL RELAY
E	PRIMARY ELEMENT
EW	PRIMARY ELEMENT WELL
G	GLASS
I	INDICATOR
IC	INDICATING CONTROLLER
IR	INDICATING RECORDER
IS	INDICATING SWITCH
IT	INDICATING TRANSMITTER
IY	INDICATING RELAY
JR	MULTIPOINT RECORDER
K	CONTROL STATION - VARIABLE TYPE (HAND/HAND-AUTO) WITHOUT CONTROLLER LIGHT (PILOT)
L	INTEGRATOR
Q	INTEGRATOR
R	RECORDER CONTINUOUS PEN
RC	RECORDER CONTROLLER
S	SWITCH
SC	SWITCH-CLOSED DEVICE POSITION
SH	SWITCH HIGH
SI	SWITCH - INTERMEDIATE DEVICE POSITION
SL	SWITCH LOW
SO	SWITCH - OPEN DEVICE POSITION
SV	SOLENOID VALVE (IN CONTROL LOOPS ONLY)
T	TRANSMITTER
U	MULTIFUNCTION
W	WELL
X	SPECIAL (REFER TO CLARIFYING SYMBOL LIST)
Y	RELAY-SIGNAL CONVERTER. COMPUTING. ETC.
Z	POWER POSITIONER/CONTROL DRIVE (EXCEPT VALVE MOUNTED)

VARIABLE & FUNCTION CODES

VARIABLES

A	ANALYSIS
B	BURNER
C	CONDUCTIVITY
D	DENSITY
E	VOLTAGE
F	FLOW
H	HAND (MANUAL)
I	CURRENT (ELECTRICAL)
J	POWER (KW)
K	TIME
L	LEVEL (LIQUID OR SOLID)
M	MOISTURE
N	NEUTRON
P	PRESSURE
R	RADIOACTIVITY
S	SPEED OR FREQUENCY
T	TEMPERATURE
U	MULTIVARIABLE
W	WEIGHT
X	SPECIAL (REFER TO CLARIFYING SYMBOL)
Y	STRAIN
Z	POSITION

FUNCTIONS

AC	ALARM CLOSED
AH	ALARM HIGH
AL	ALARM LOW
AO	ALARM OPEN
C	CONTROL (ANALOG)
D	DIFFERENTIAL
E	ELEMENT
I	INDICATE
K	CONTROL STATION - VARIABLE TYPE (HAND/HAND-AUTO)
M	MANUAL CONTROL SWITCH (USED WITH OTHER PROCESS VARIABLE)
Q	INTEGRATE
R	RECORD
S	SWITCH
T	TRANSMIT
U	MULTIFUNCTION
W	WELL
X	SPECIAL (REFER TO CLARIFYING SYMBOL LIST ABOVE)
Y	RELAY (SIGNAL CONVERTER COMPUTING. ETC.)

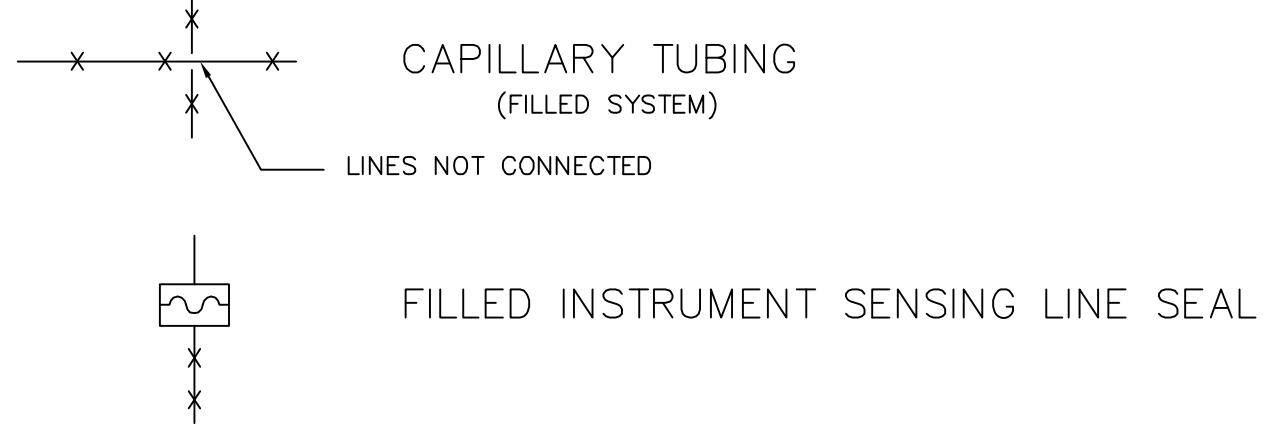
NOTES:  
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-34, SHEET 4, REVISION C.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	J	A
29	13		A	K	P
13			M		
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING P & ID INDEX & SYMBOL UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-34		SHEET 4			0

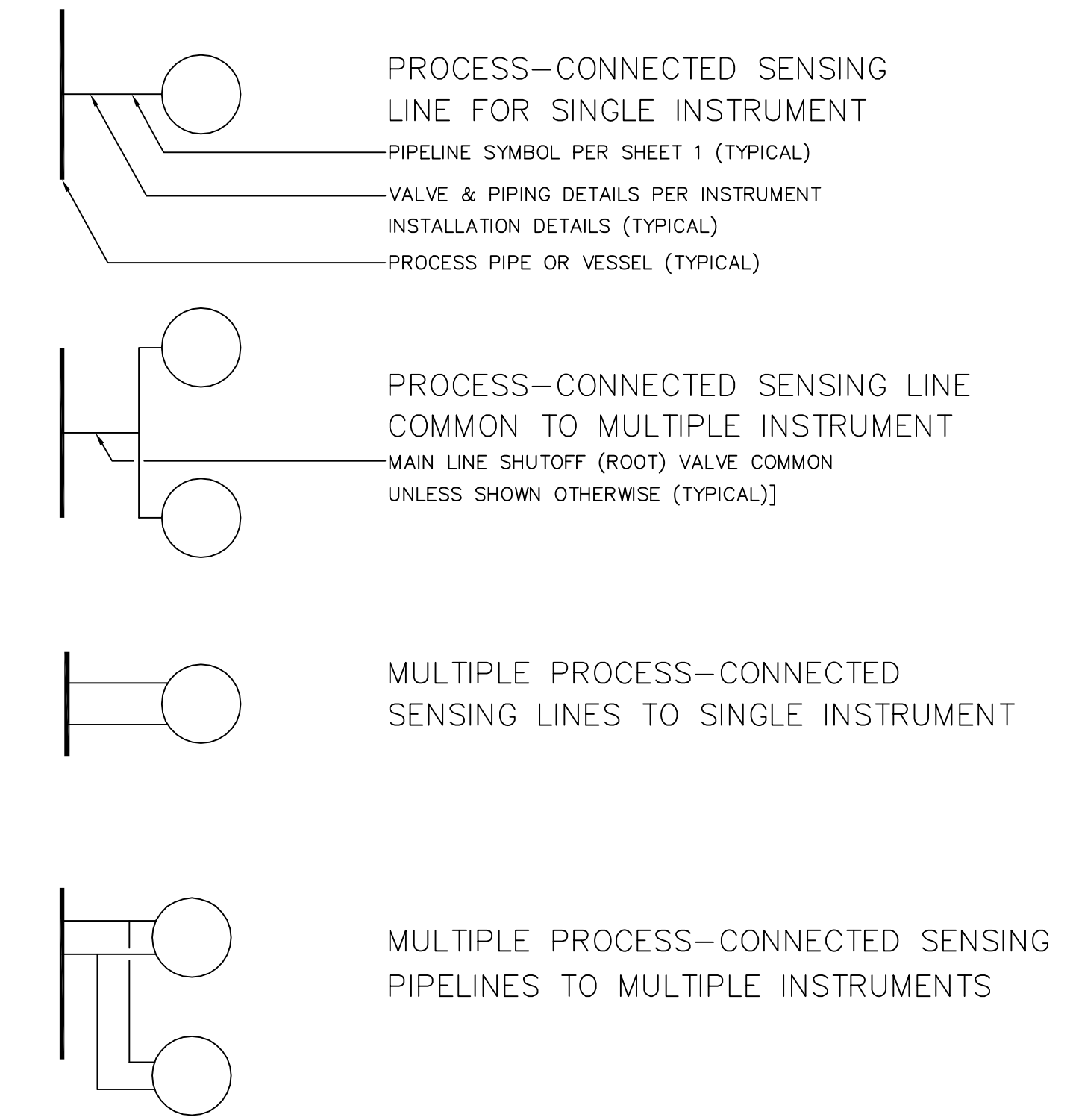
F

F

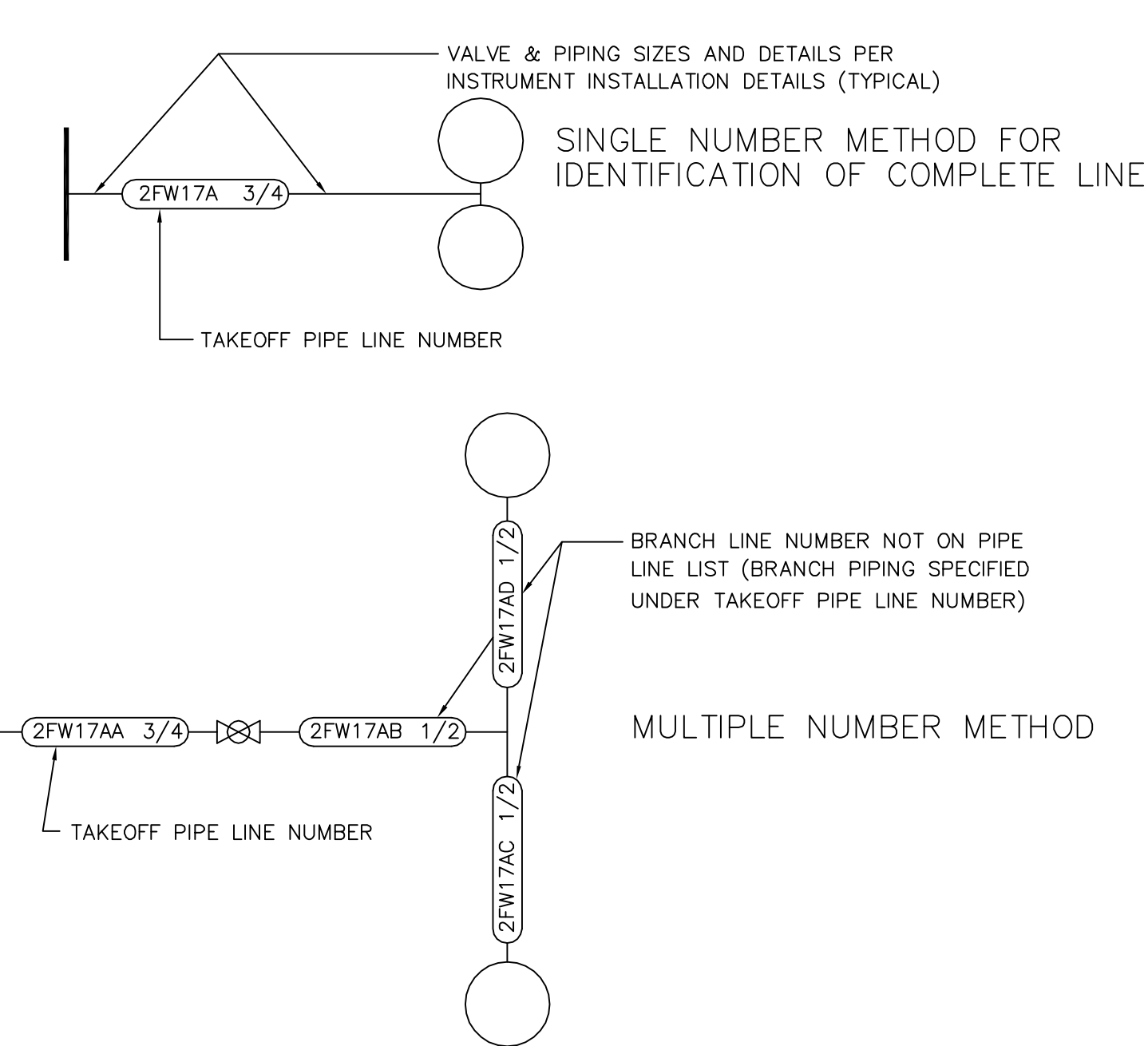
INSTRUMENT SENSING PIPELINE SYMBOLS



SENSING PIPELINES NOT NUMBERED



NUMBERED SENSING PIPE LINES

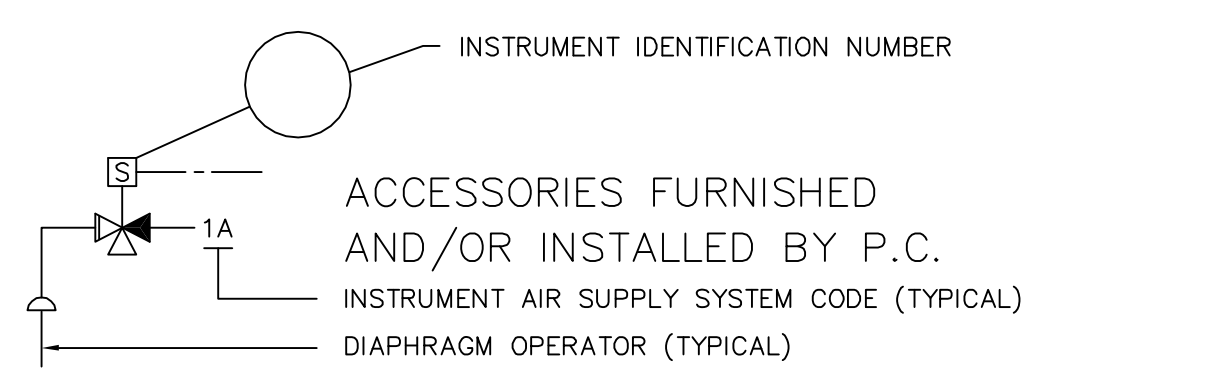


E

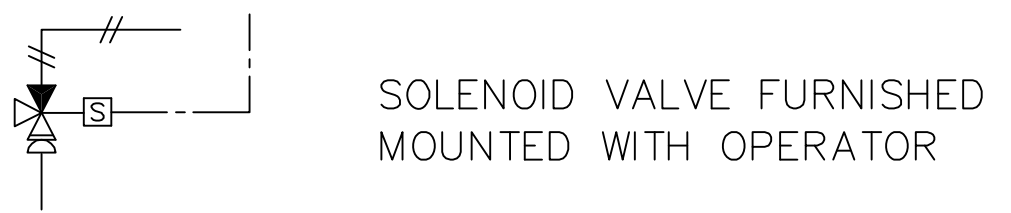
E

TYPICAL INSTRUMENT & CONTROL SYMBOLING EXAMPLES

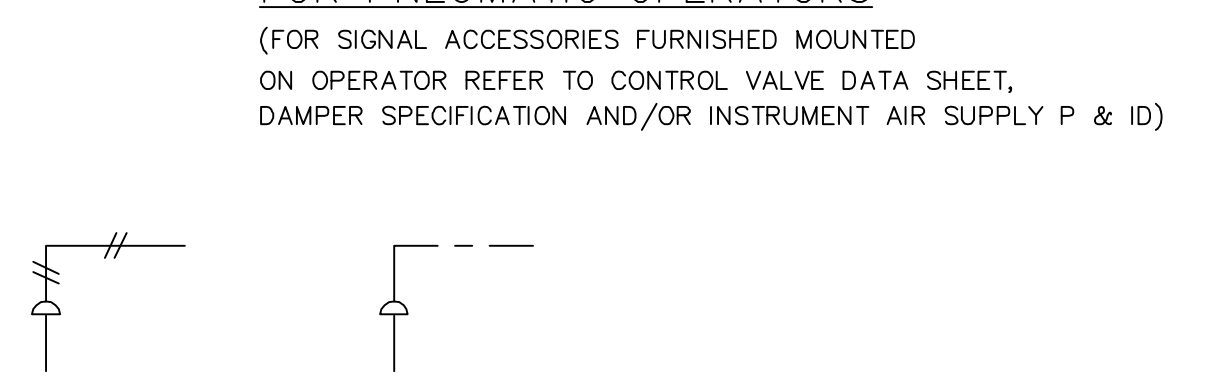
MULTIPLE CONTROL SIGNALS FOR PNEUMATIC OPERATORS



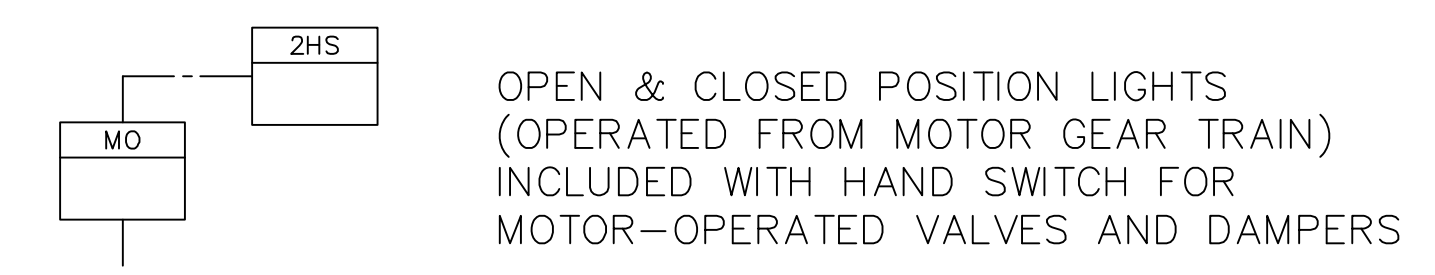
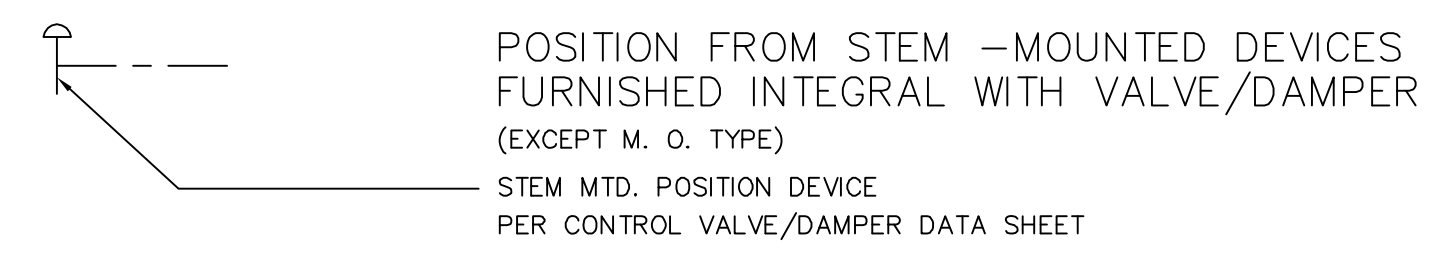
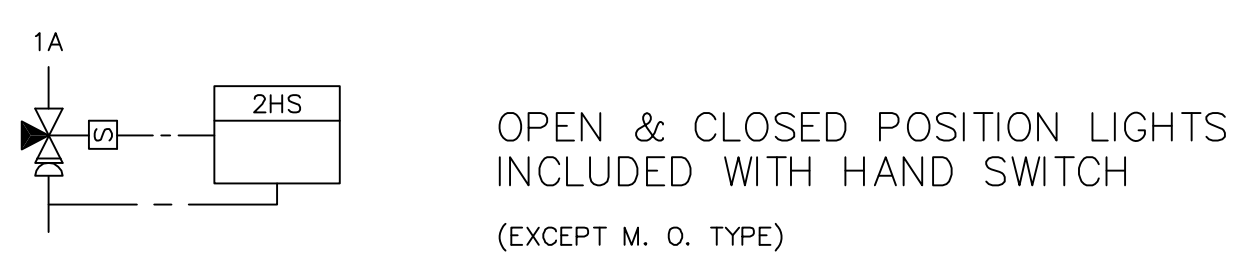
SOLENOID VALVE FURNISHED MOUNTED WITH OPERATOR



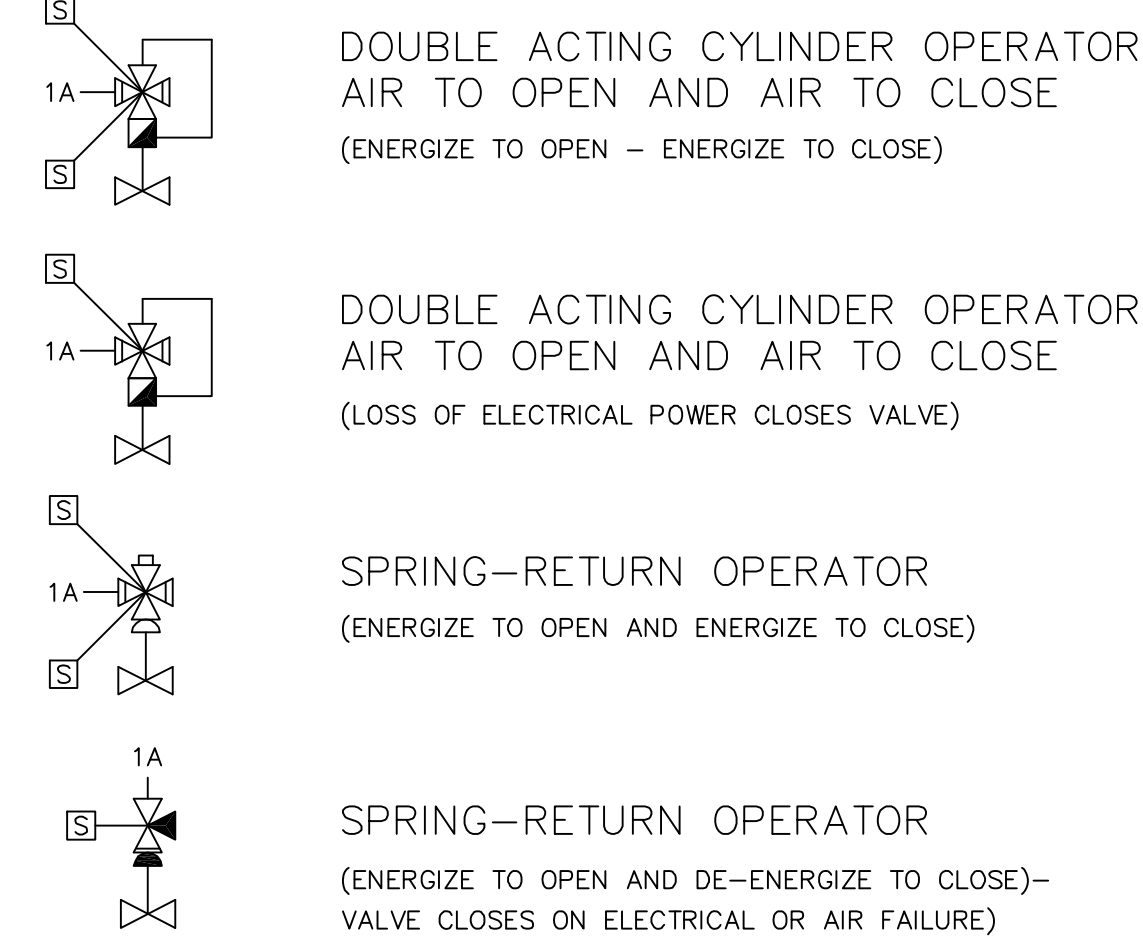
SINGLE CONTROL SIGNAL FOR PNEUMATIC OPERATORS



VALVE /DAMPER POSITION SIGNALS



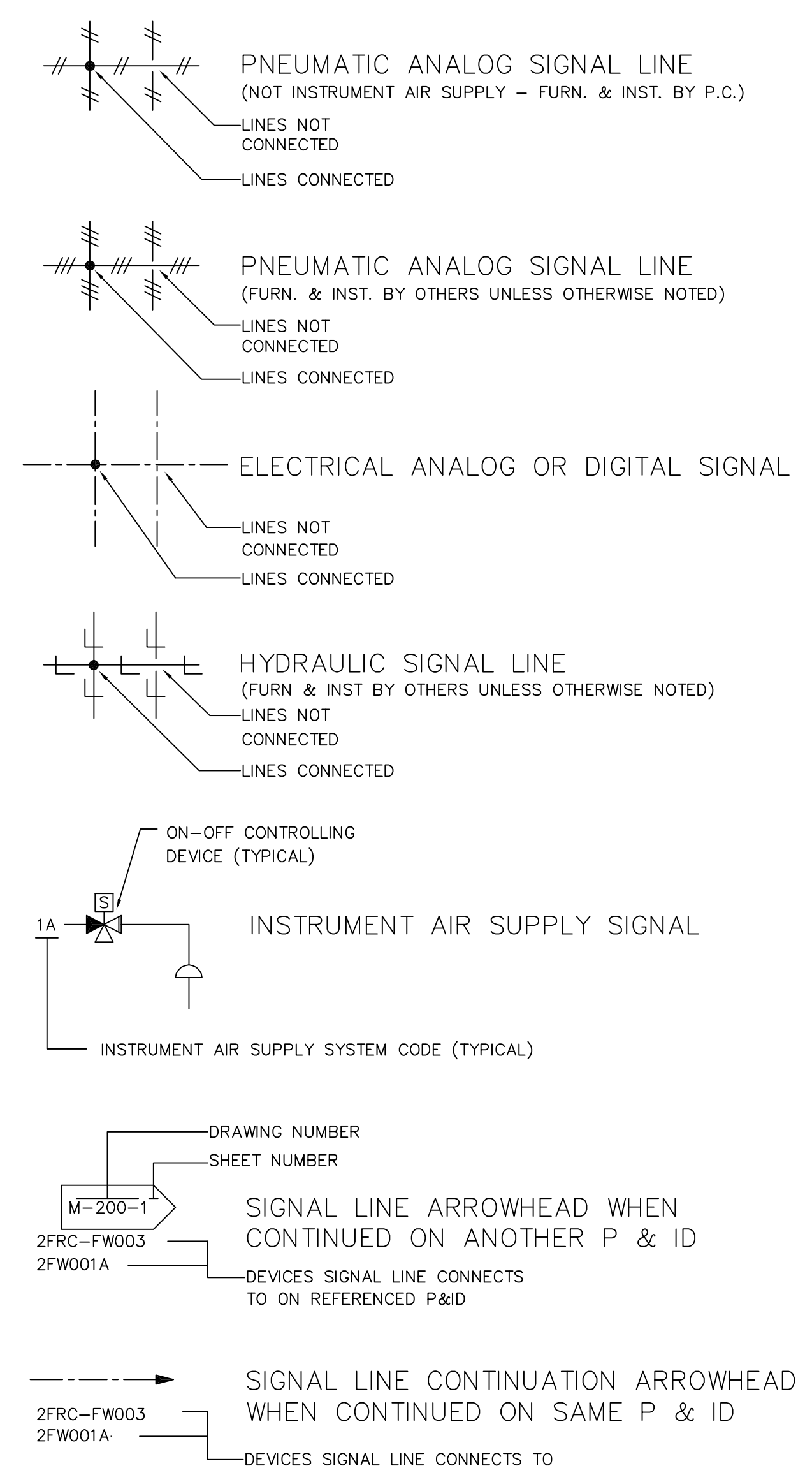
VALVE OPERATOR CONTROLS



D

D

INSTRUMENT & CONTROL SIGNAL SYMBOLS



C

C

B

B

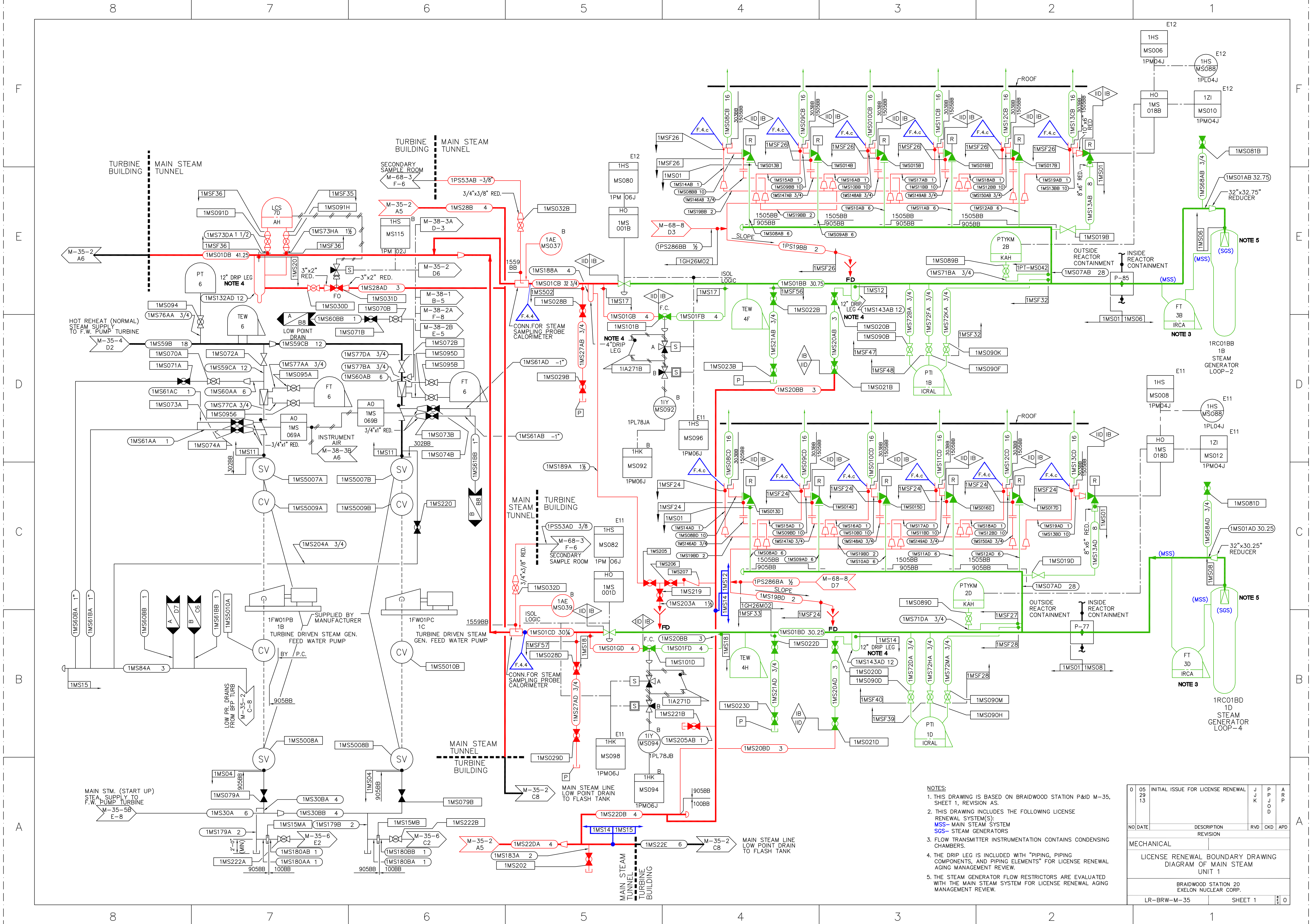
A

A

NOTES:  
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-34, SHEET 5, REVISION C.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	J	A
29	13		A	K	R
13			M		P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING P&ID INDEX & SYMBOLS UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-34		SHEET 5		0	

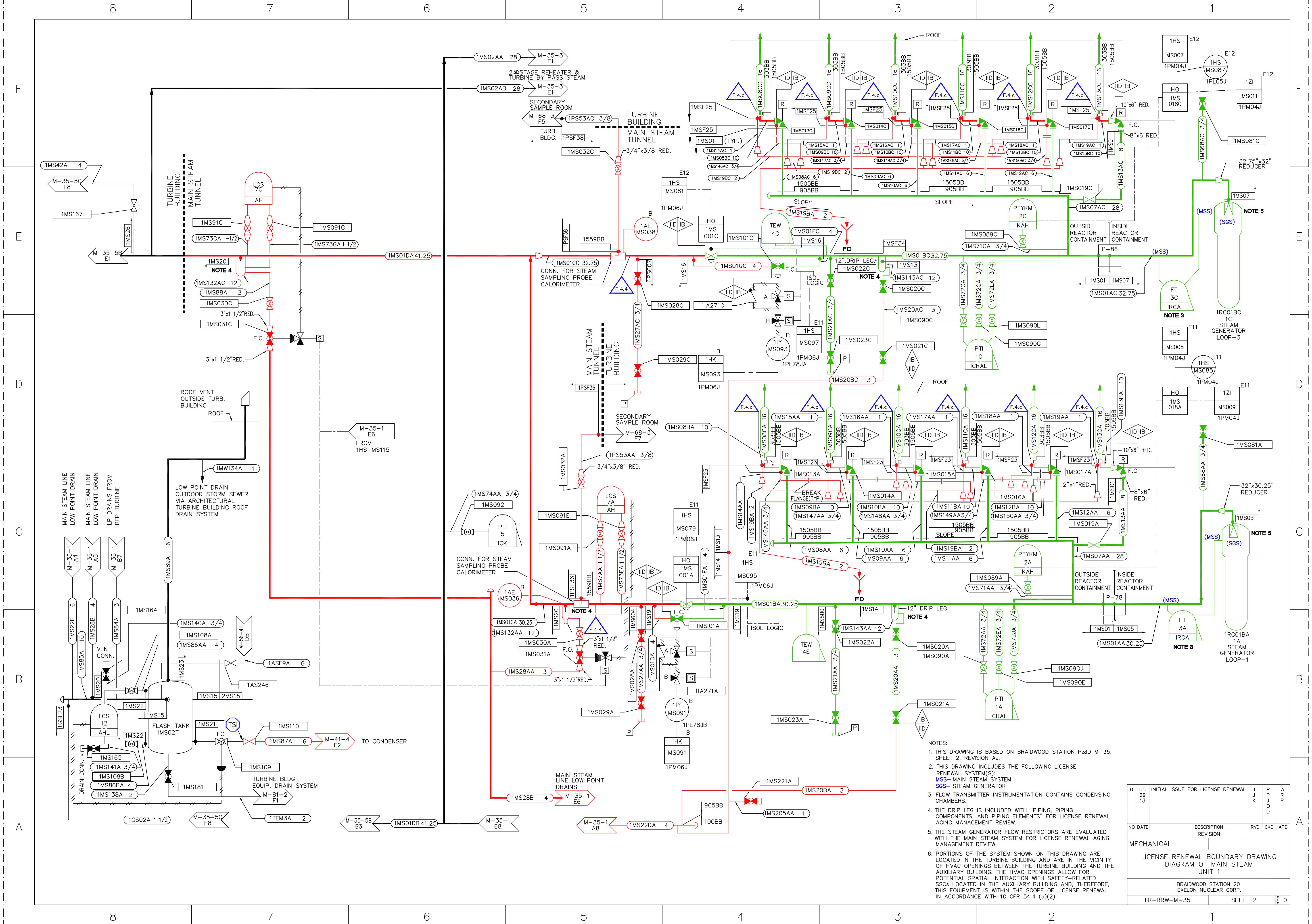




- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-35, SHEET 1, REVISION AS.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MSS - MAIN STEAM SYSTEM  
 SGS - STEAM GENERATORS
  - FLOW TRANSMITTER INSTRUMENTATION CONTAINS CONDENSING CHAMBERS.
  - THE DRIP LEG IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE STEAM GENERATOR FLOW RESTRICTORS ARE EVALUATED WITH THE MAIN STEAM SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29		K	J	R
13			O	P
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF MAIN STEAM				
UNIT 1				
BRAIDWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-35	SHEET 1			0



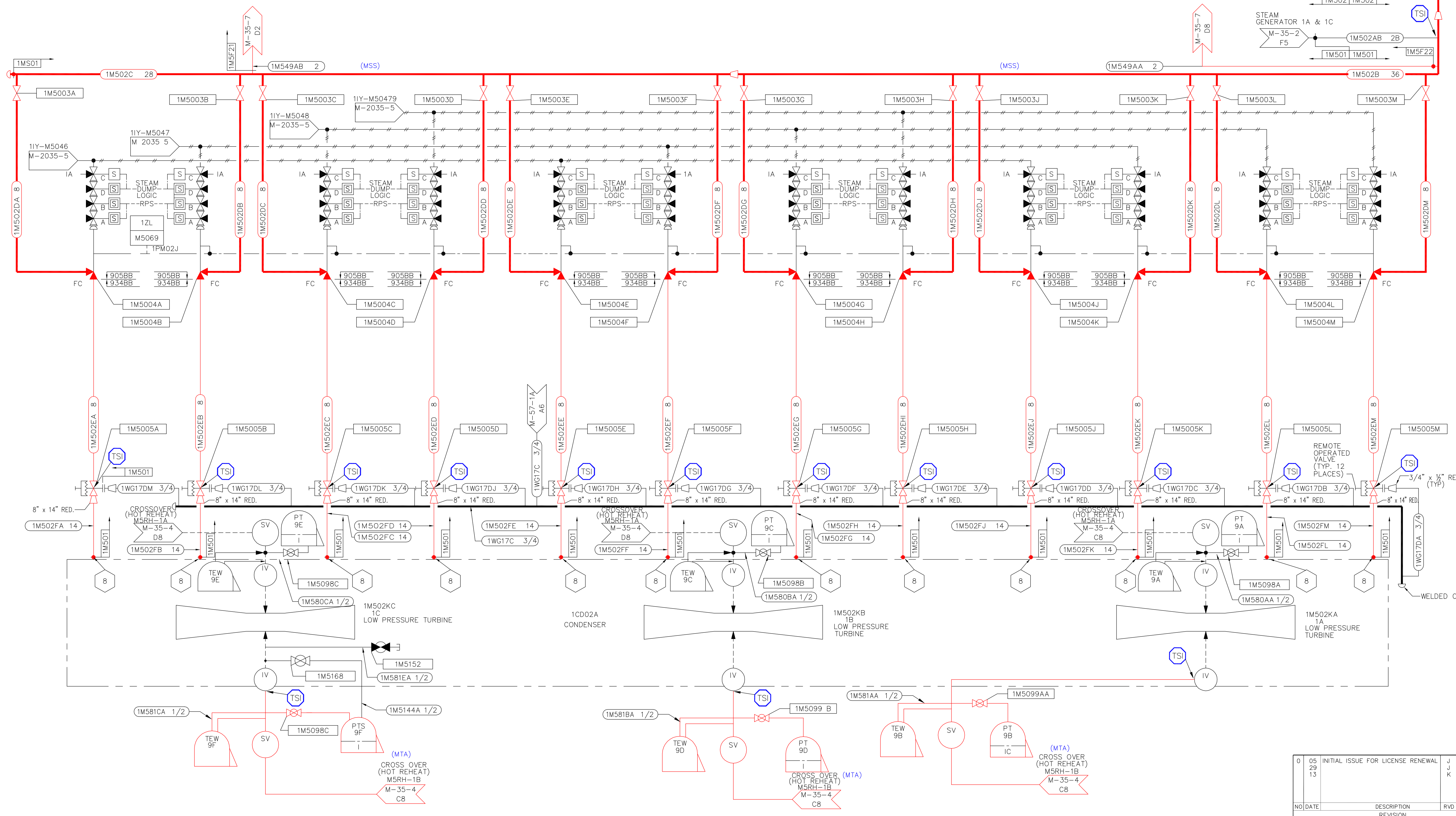
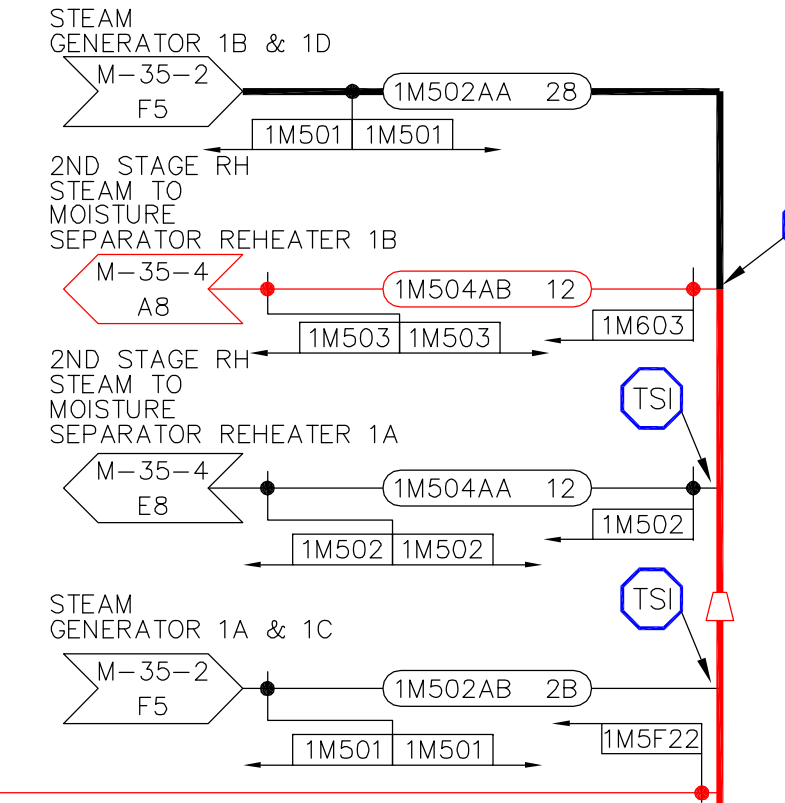


- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-35, SHEET 2, REVISION AJ.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MSS- MAIN STEAM SYSTEM  
 SGS- STEAM GENERATOR
  3. FLOW TRANSMITTER INSTRUMENTATION CONTAINS CONDENSING CHAMBERS.
  4. THE DRIP LEG IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  5. THE STEAM GENERATOR FLOW RESTRICTORS ARE EVALUATED WITH THE MAIN STEAM SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  6. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29			K	P	R
13				L	P
				O	
				D	
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF MAIN STEAM					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-35 SHEET 2					

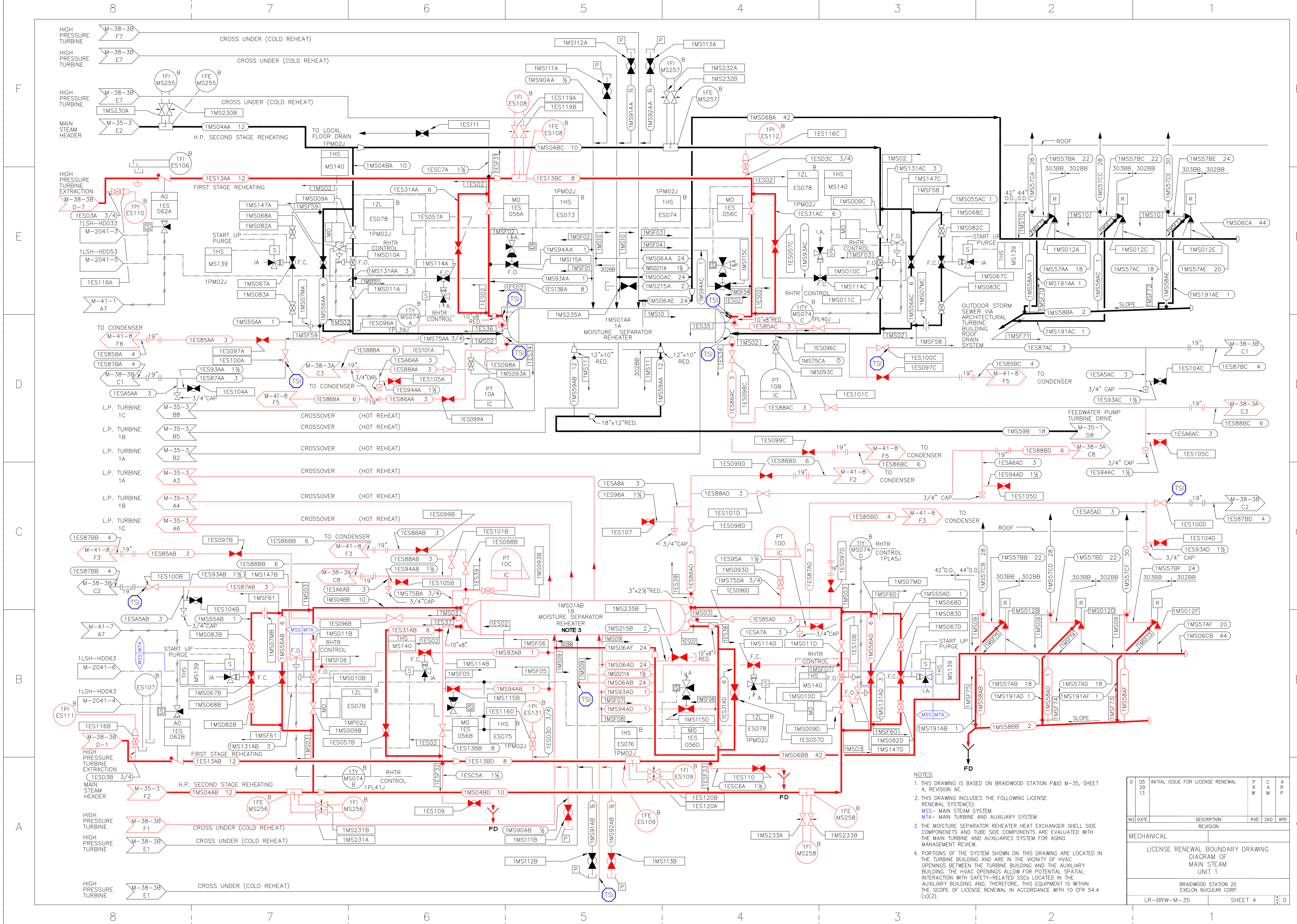


**NOTES:**  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-35, SHEET 3, REVISION V.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MSS - MAIN STEAM SYSTEM  
 MTA - MAIN TURBINE AND AUXILIARY SYSTEM  
 3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).



0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	J	A
29	13		K	Y	R
					P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF MAIN STEAM					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-35		SHEET 3		0	

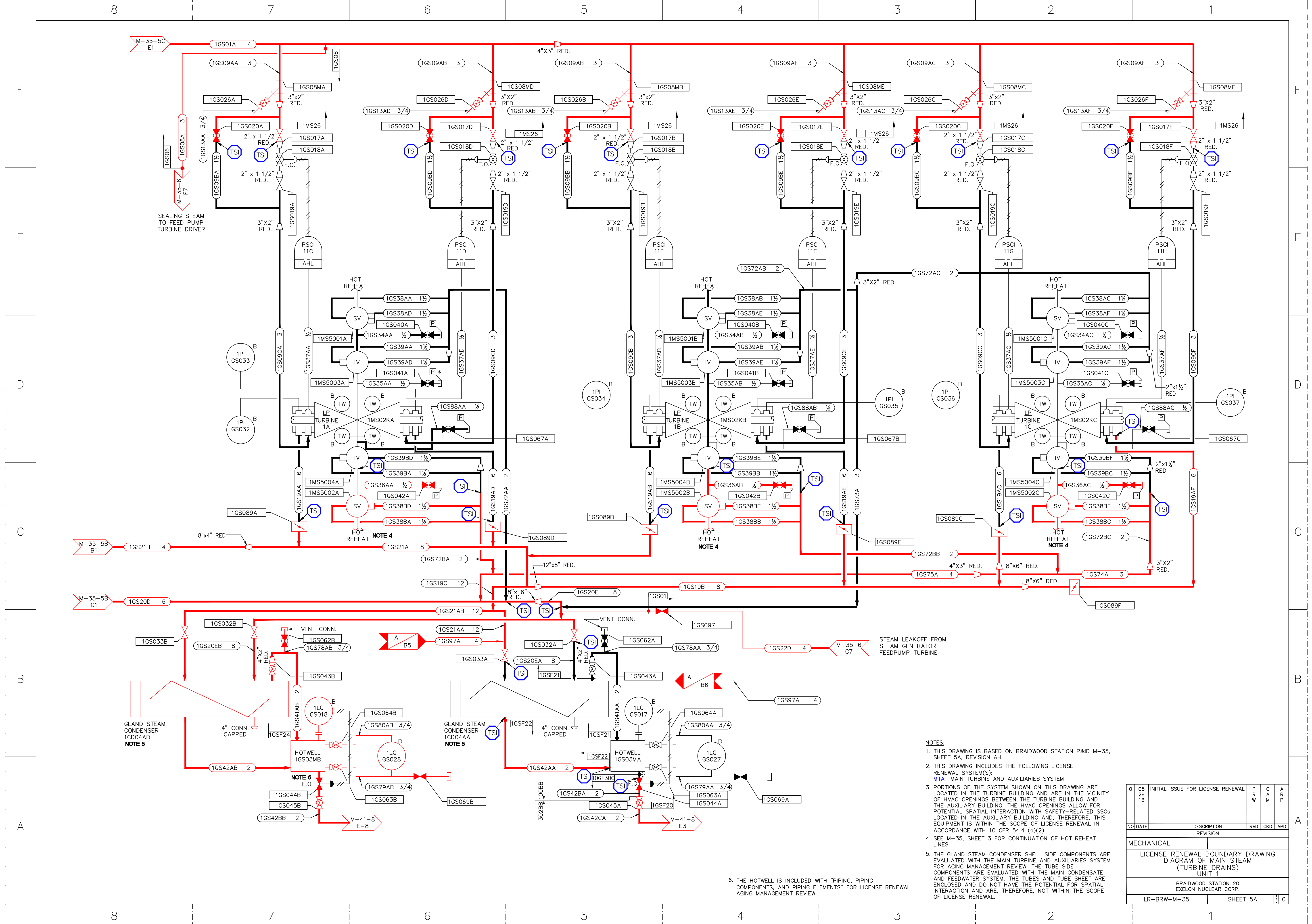




- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-35, SHEET 4, REVISION AE.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MSS - MAIN STEAM SYSTEM  
 MTA - MAIN TURBINE AND AUXILIARY SYSTEM
  - THE MOISTURE SEPARATOR REHEATER HEAT EXCHANGER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE MAIN TURBINE AND AUXILIARIES SYSTEM FOR AGRG MANAGEMENT REVIEW.
  - PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF 4VAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
13	29	4. REVISION AE.	R	A	M	P
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF MAIN STEAM UNIT 1						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-35 SHEET 4 0						





SEALING STEAM TO FEED PUMP TURBINE DRIVER

STEAM LEAKOFF FROM STEAM GENERATOR FEEDPUMP TURBINE

GLAND STEAM CONDENSER 1CD04AB  
NOTE 5

GLAND STEAM CONDENSER 1CD04AA  
NOTE 5

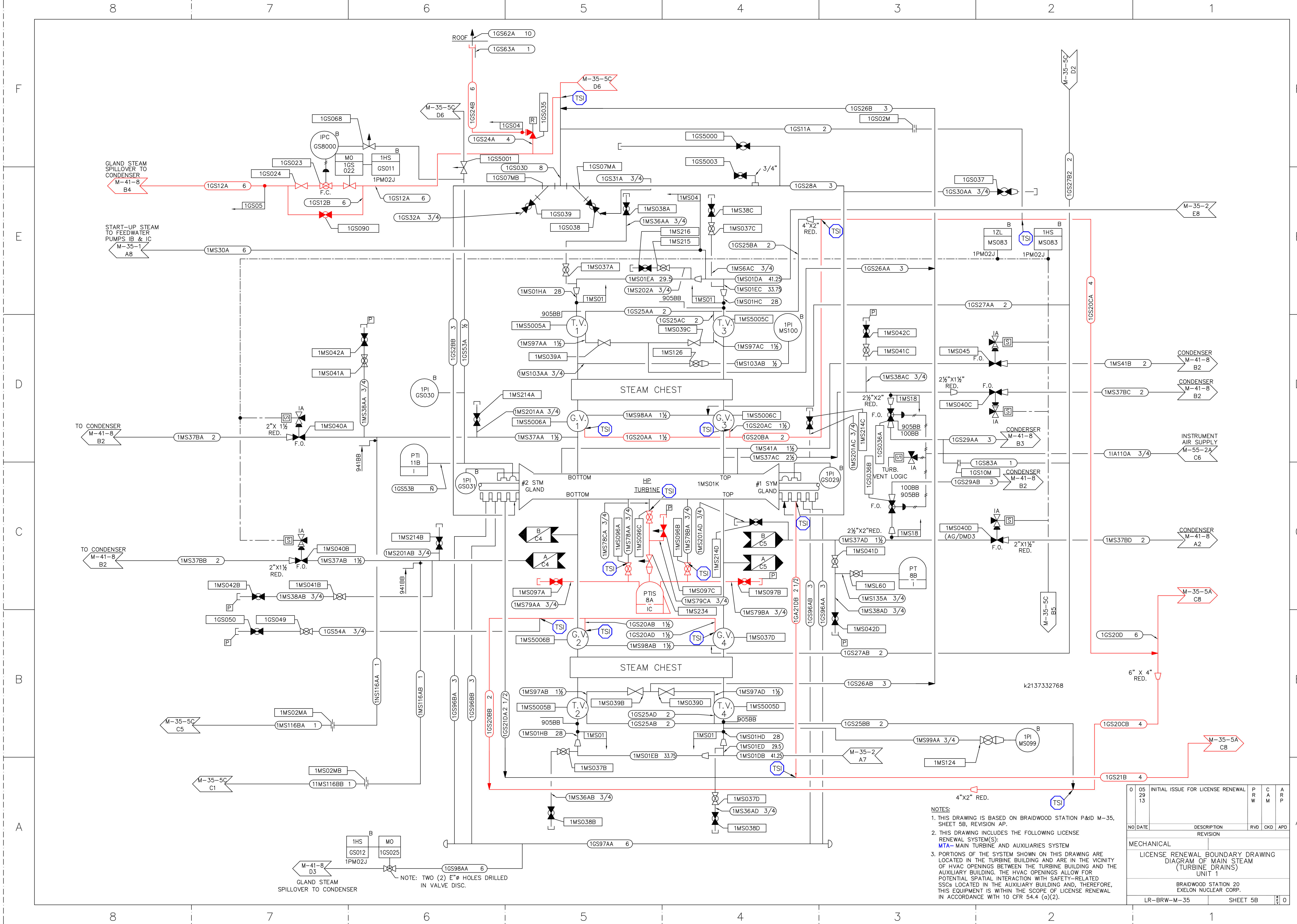
HOTWELL 1GS03MB  
NOTE 6

HOTWELL 1GS03MA

- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-35, SHEET 5A, REVISION AH.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MTA- MAIN TURBINE AND AUXILIARIES SYSTEM
  - PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).
  - SEE M-35, SHEET 3 FOR CONTINUATION OF HOT REHEAT LINES.
  - THE GLAND STEAM CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE MAIN TURBINE AND AUXILIARIES SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE MAIN CONDENSATE AND FEEDWATER SYSTEM. THE TUBES AND TUBE SHEET ARE ENCLOSED AND DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  - THE HOTWELL IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
	29		W				P
	13						
NO	DATE	DESCRIPTION	RVD	CKD	APD		
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF MAIN STEAM (TURBINE DRAINS) UNIT 1							
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.							
LR-BRW-M-35 SHEET 5A							





GLAND STEAM SPILLOVER TO CONDENSER  
M-41-8 B4

START-UP STEAM TO FEEDWATER PUMPS 1B & 1C  
M-35-1 A8

TO CONDENSER  
M-41-8 B2

TO CONDENSER  
M-41-8 B2

M-35-5C C5

M-35-5C C1

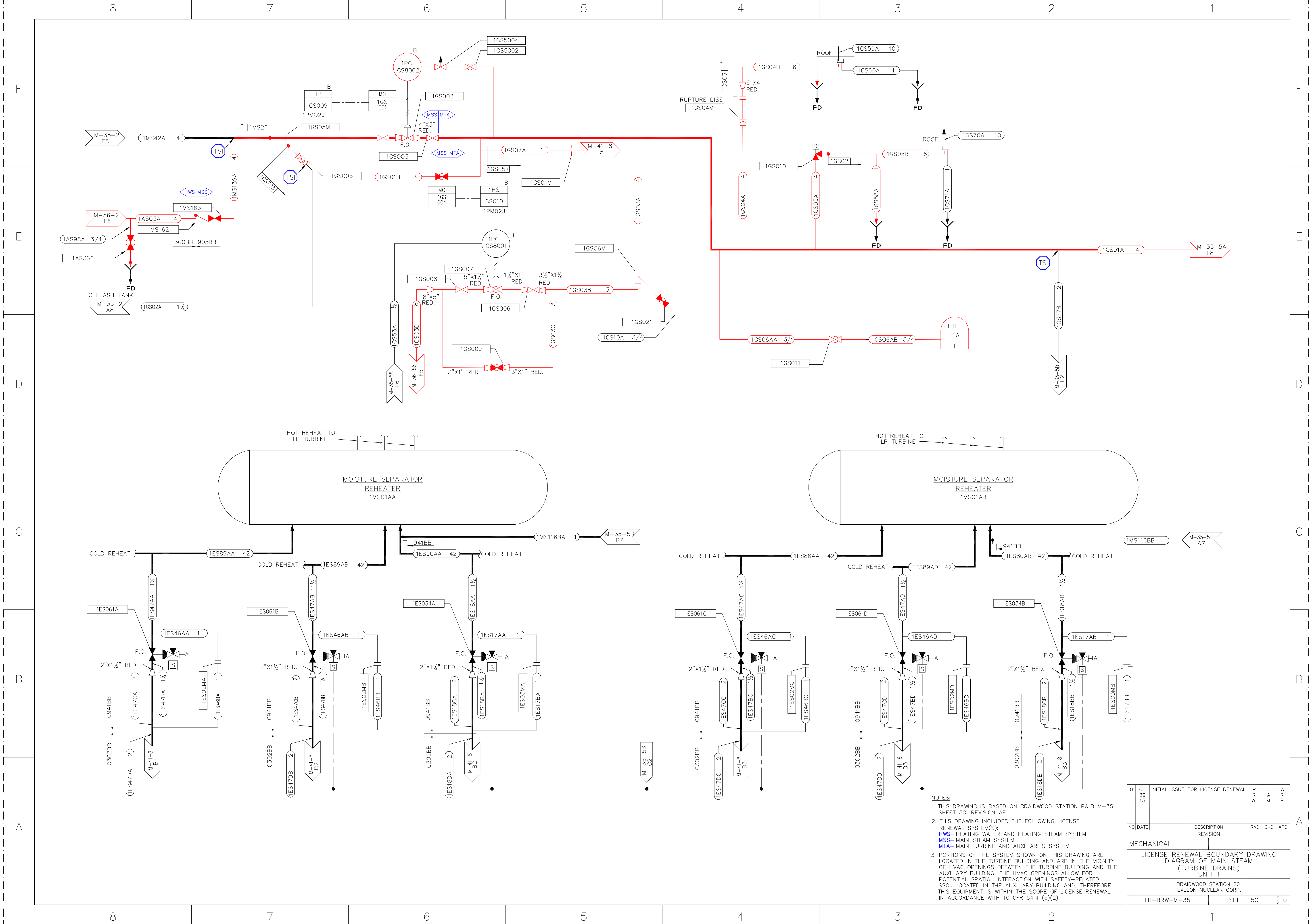
GLAND STEAM SPILLOVER TO CONDENSER  
M-41-8 D3

NOTE: TWO (2) E" HOLES DRILLED IN VALVE DISC.

NOTES:  
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-35, SHEET 5B, REVISION AP.  
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MTA- MAIN TURBINE AND AUXILIARIES SYSTEM  
3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
29	13		R	A	M	P
NO DATE		DESCRIPTION	RVD	CKD	APD	
		REVISION				
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF MAIN STEAM						
(TURBINE DRAINS)						
UNIT 1						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-35			SHEET 5B		0	





NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-35, SHEET 5C, REVISION AE.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 HWS- HEATING WATER AND HEATING STEAM SYSTEM  
 MSS- MAIN STEAM SYSTEM  
 MTA- MAIN TURBINE AND AUXILIARIES SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
29	13		W		A		P
NO DATE		DESCRIPTION	RVD	CKD	APD		
		REVISION					
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF MAIN STEAM (TURBINE DRAINS) UNIT 1							
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.							
LR-BRW-M-35		SHEET 5C				0	

8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

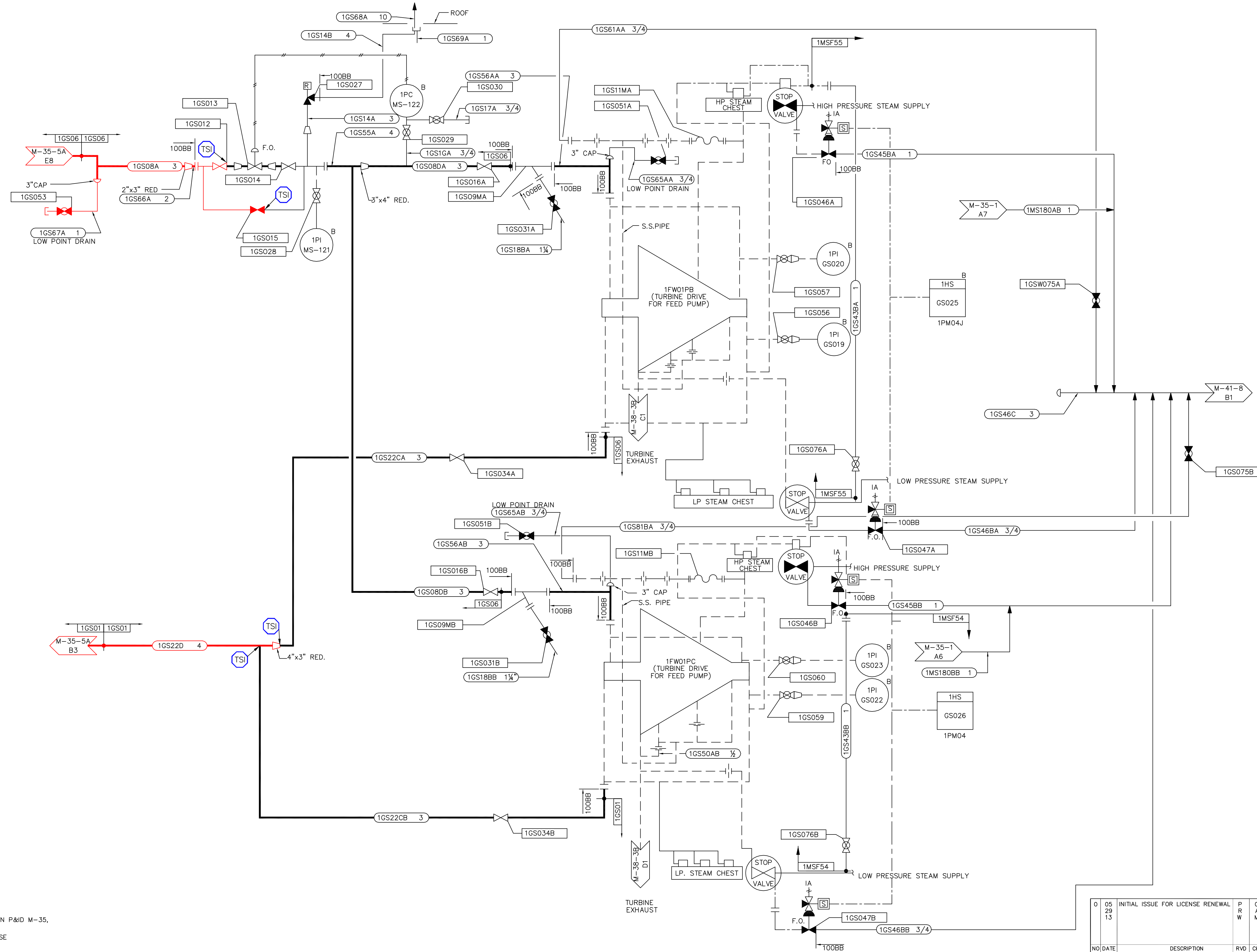
E

D

C

B

A



NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-35, SHEET 6, REVISION T.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MTA- MAIN TURBINE AND AUXILIARIES SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A
29		R	A	R
13		W	M	P
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF MAIN STEAM				
UNIT 1				
BRAIDWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-35	SHEET 6			0

8

7

6

5

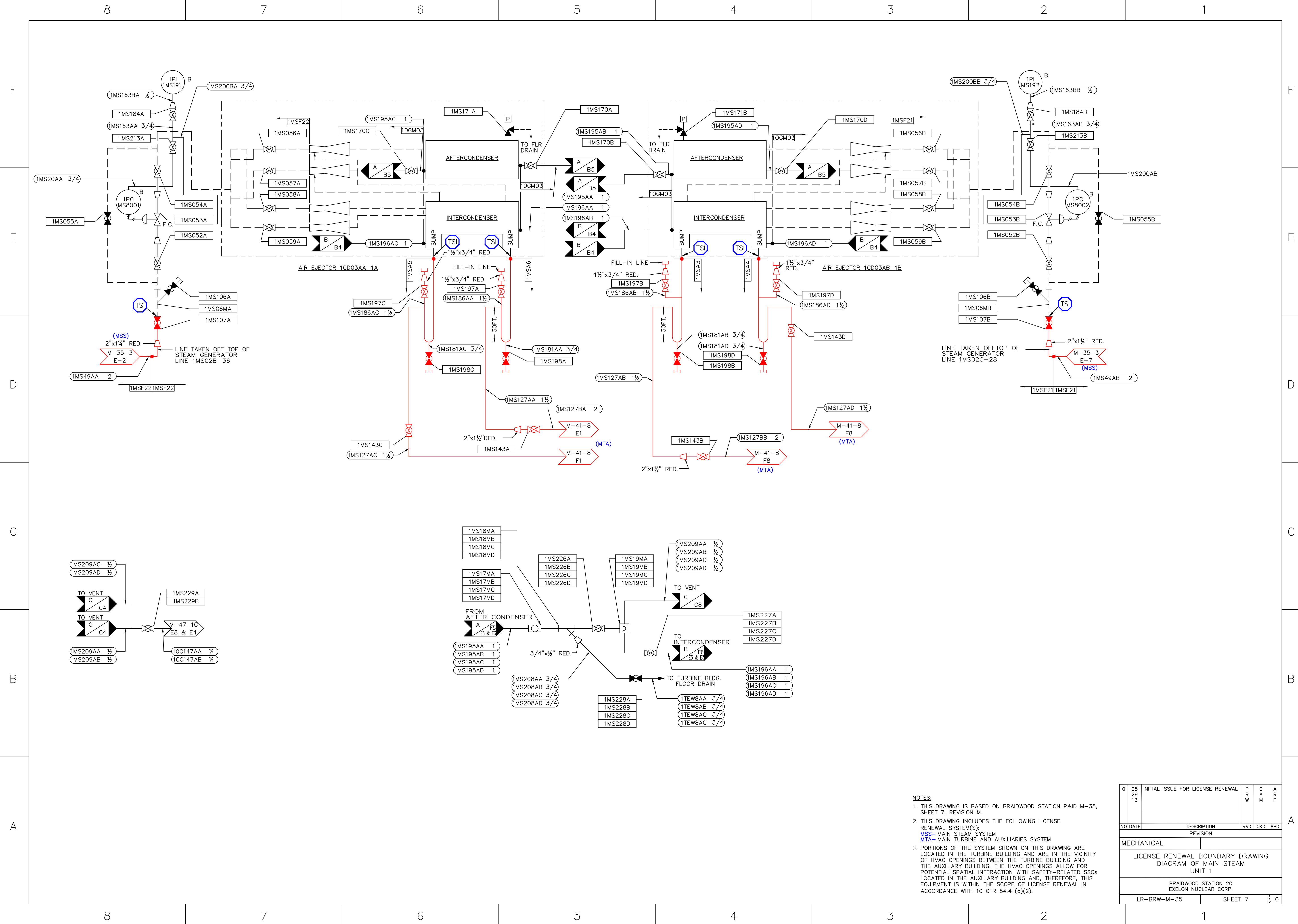
4

3

2

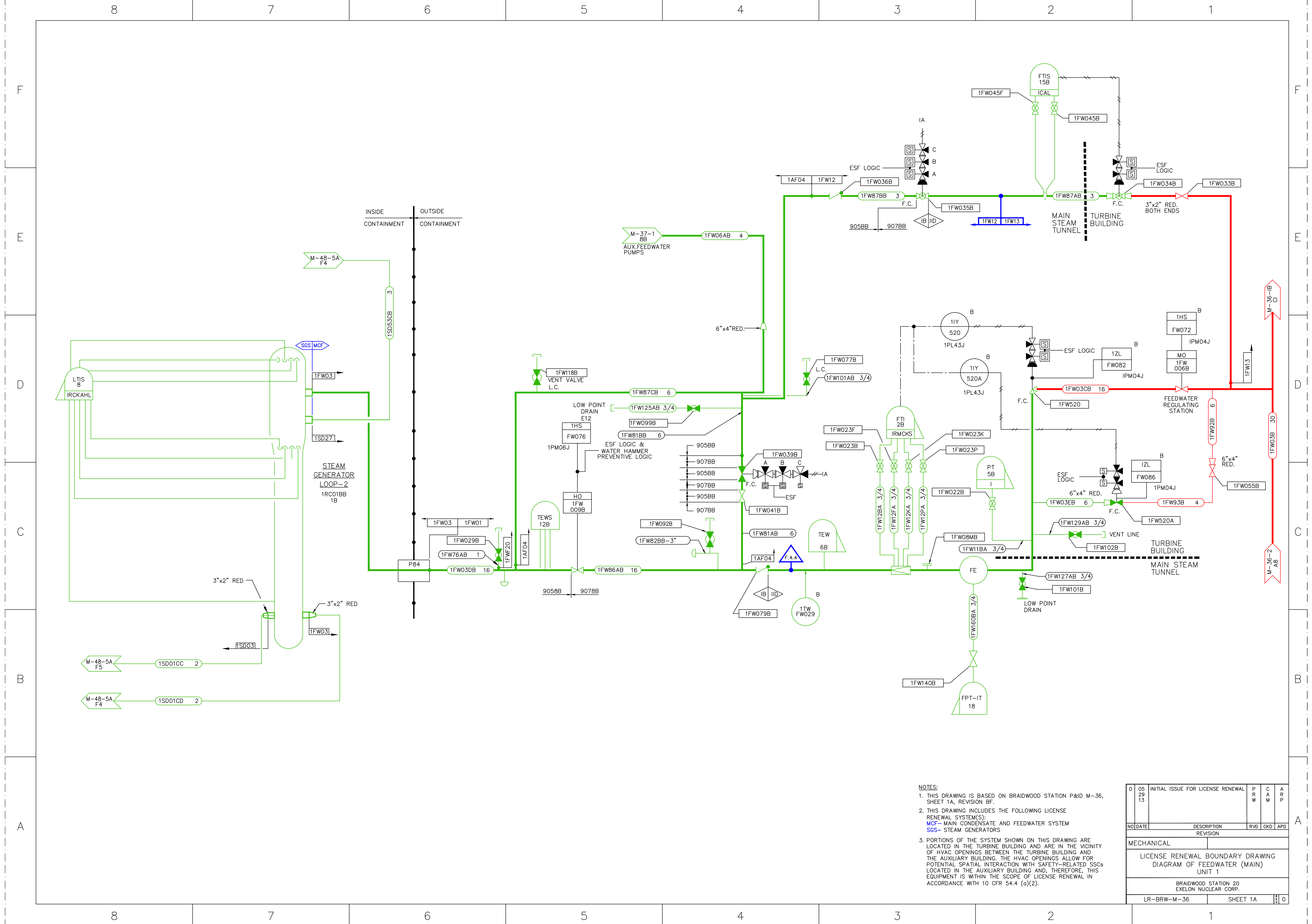
1





NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-35, SHEET 7, REVISION M.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MSS- MAIN STEAM SYSTEM  
 MTA- MAIN TURBINE AND AUXILIARIES SYSTEM  
 3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (g)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P
NO/DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF MAIN STEAM UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-35	SHEET 7	0		

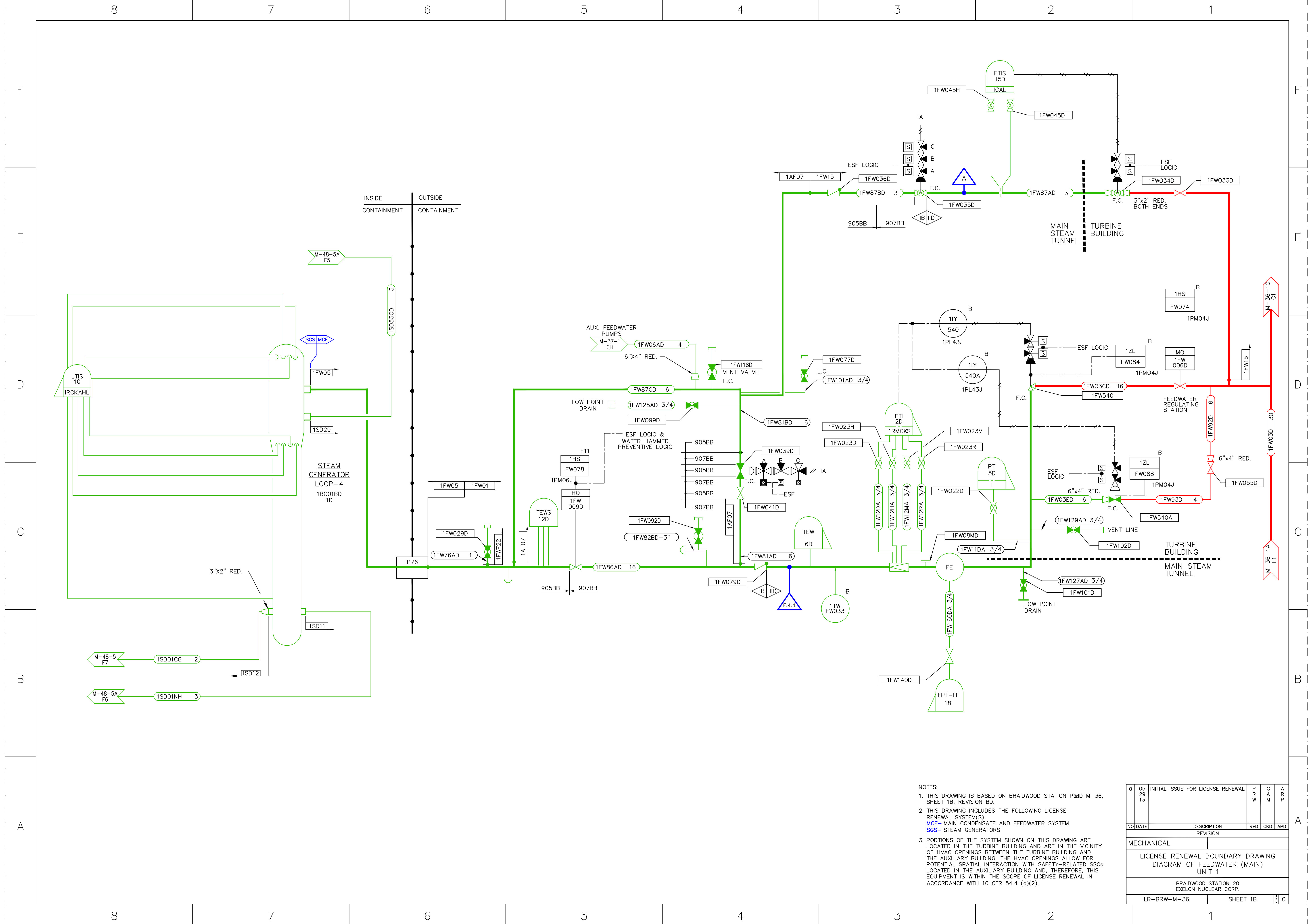


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-36, SHEET 1A, REVISION BF.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MCF- MAIN CONDENSATE AND FEEDWATER SYSTEM  
 SCS- STEAM GENERATORS
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (g)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P
NO/DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FEEDWATER (MAIN) UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-36	SHEET 1A	0		

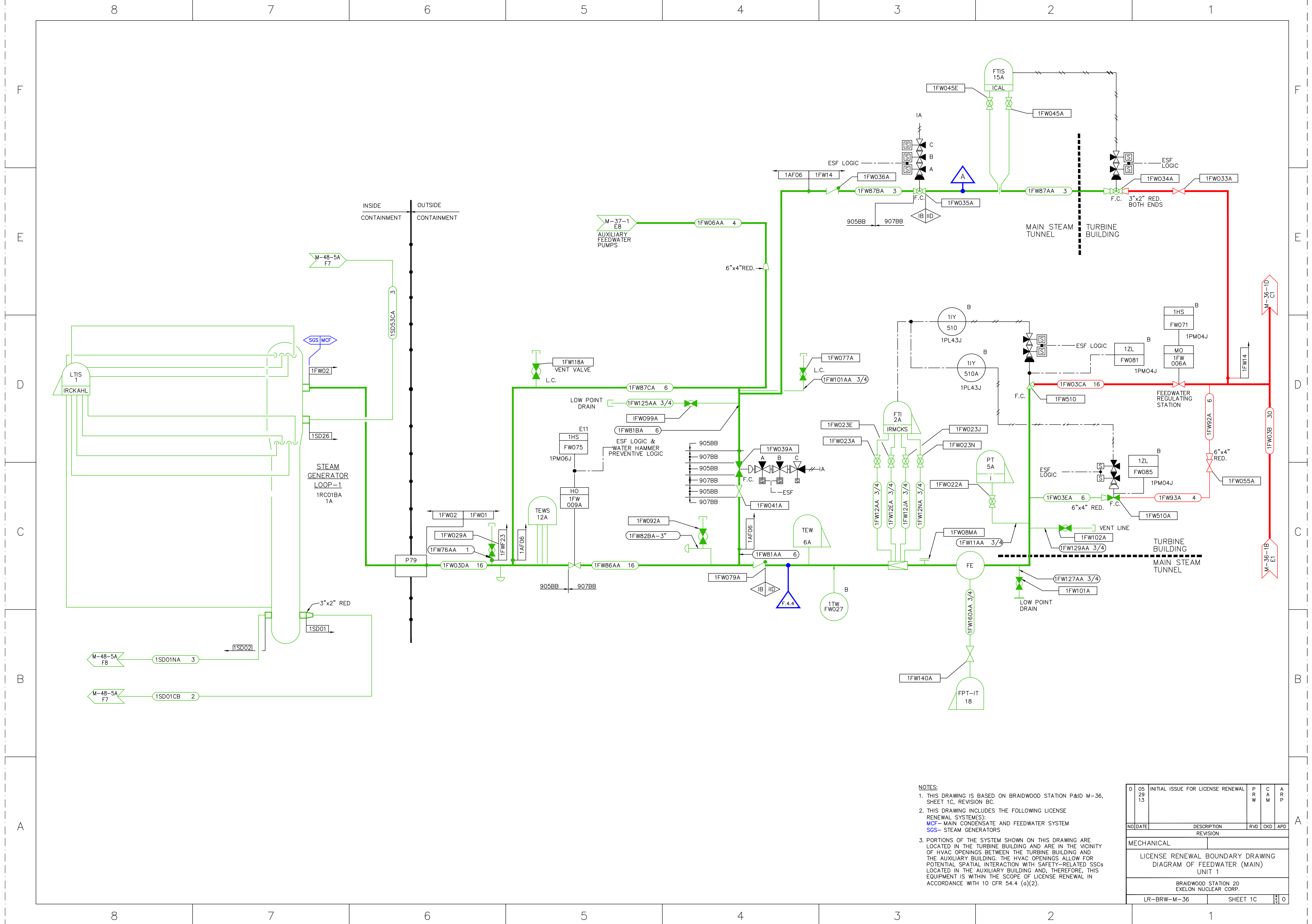




**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-36, SHEET 1B, REVISION BD.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MCF- MAIN CONDENSATE AND FEEDWATER SYSTEM  
 SGS- STEAM GENERATORS
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (g)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
29	13		R	A	M	P
			W			
NO DATE		DESCRIPTION	RVD	CKD	APD	
REVISION						
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF FEEDWATER (MAIN)						
UNIT 1						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-36		SHEET 1B		0		

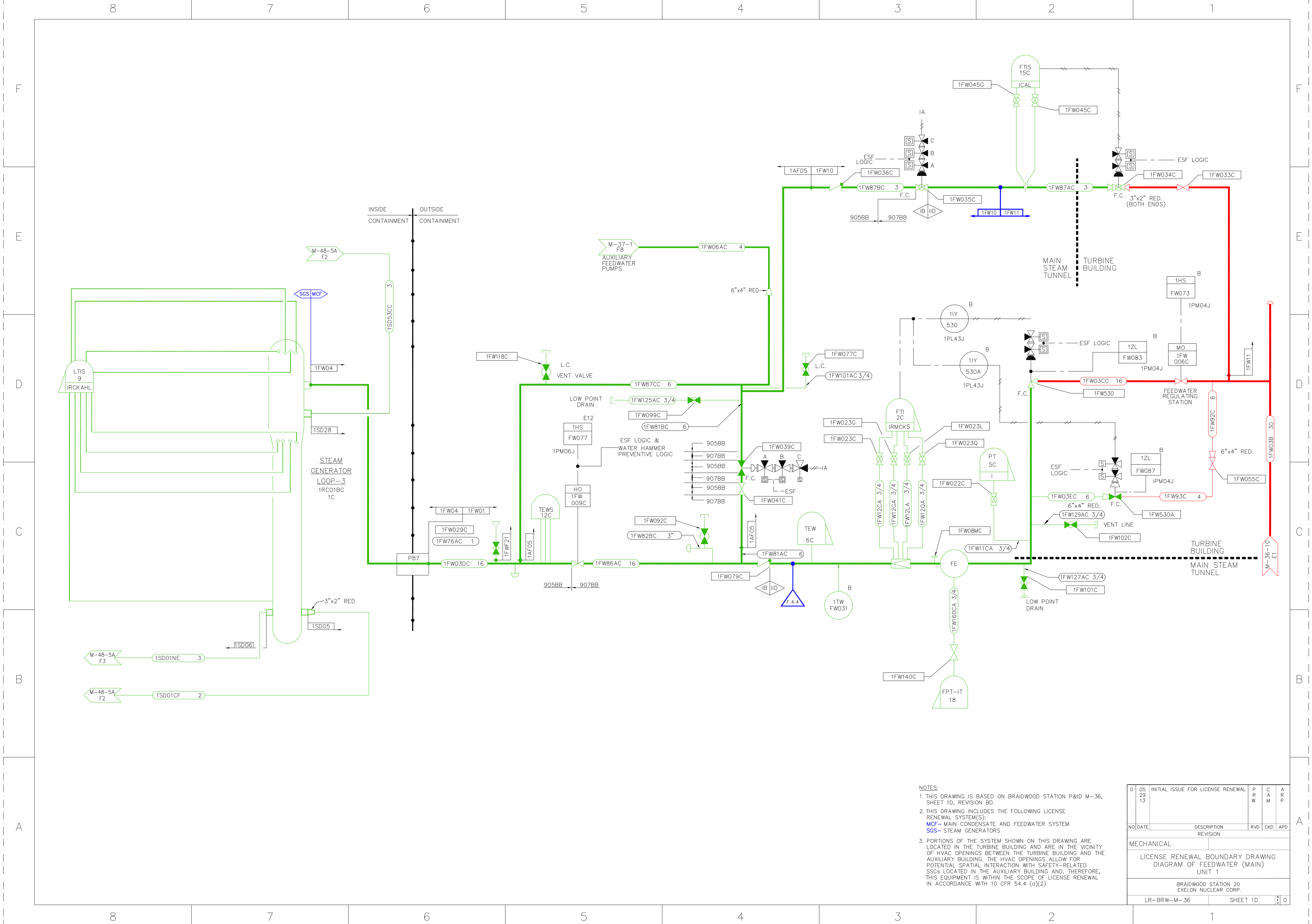


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-36, SHEET 1C, REVISION BC.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MCF- MAIN CONDENSATE AND FEEDWATER SYSTEM  
SGS- STEAM GENERATORS
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (g)(2).

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
		W	W	M	M	P
NO DATE	DESCRIPTION	RVD	CKD	APD		
	REVISION					
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FEEDWATER (MAIN) UNIT 1						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-36	SHEET 1C					0

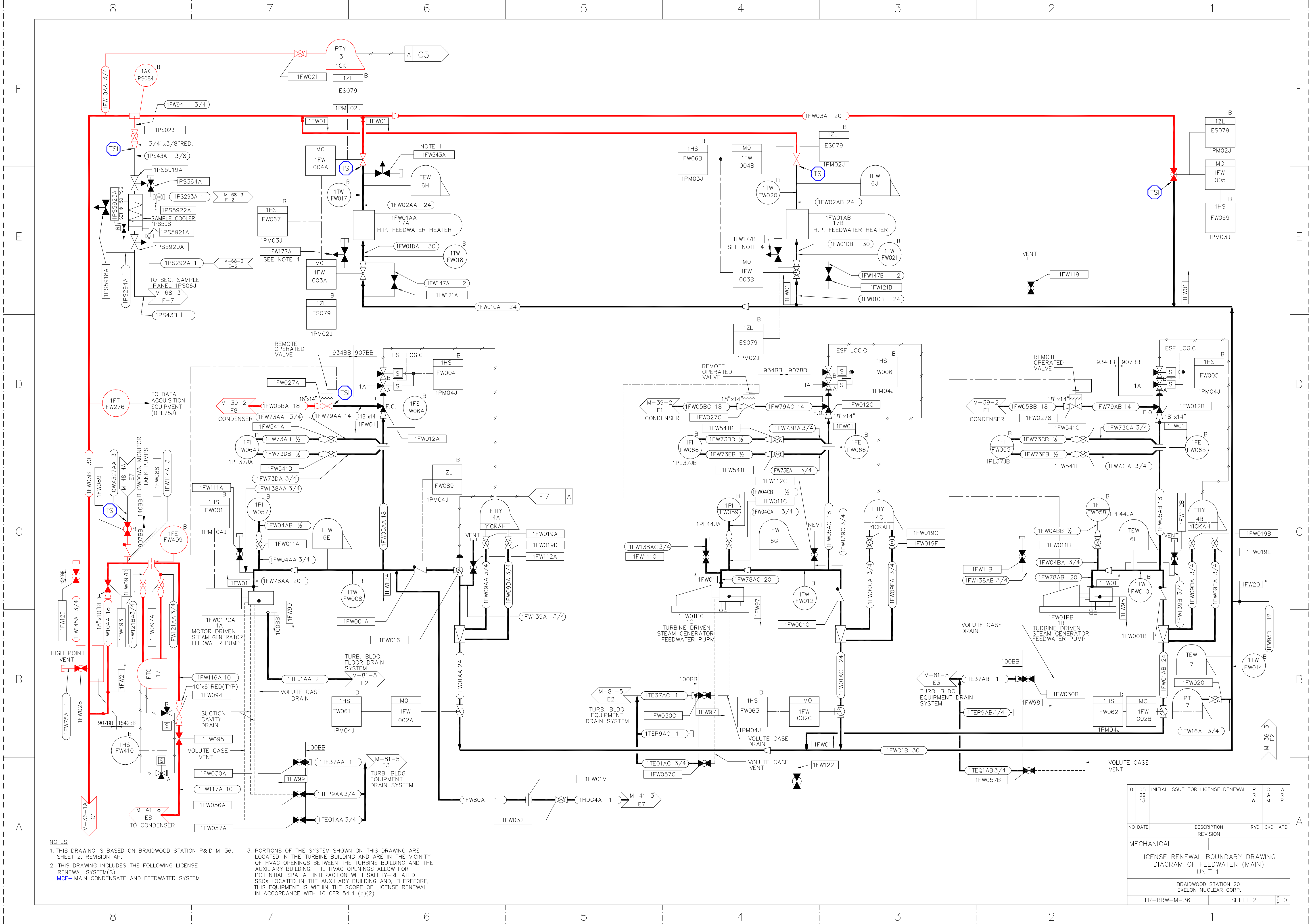




**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-36, SHEET 1D, REVISION BD.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
**MCF** - MAIN CONDENSATE AND FEEDWATER SYSTEM  
**SGS** - STEAM GENERATORS
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (g)(2).

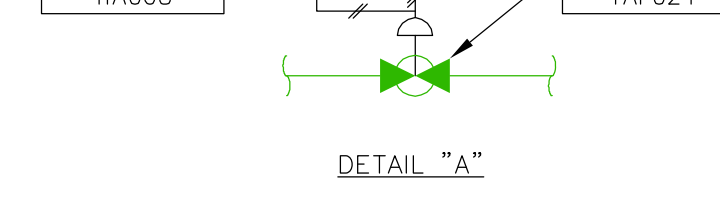
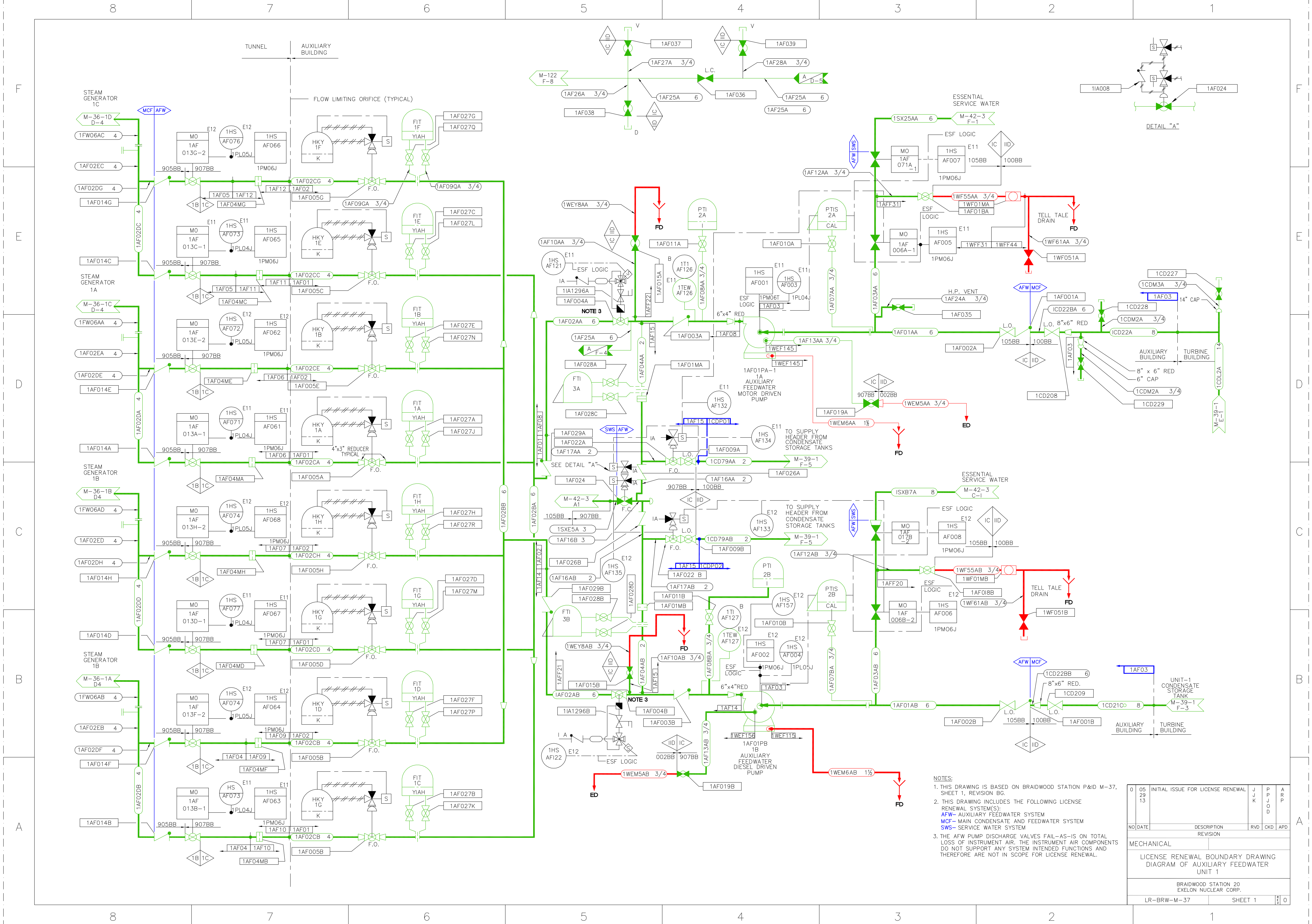
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
	29		R	A	M	P
	13		W			
NO DATE		DESCRIPTION	RVD	CKD	APD	
		REVISION				
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF FEEDWATER (MAIN)						
UNIT 1						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-36		SHEET 1D				0



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-36, SHEET 2, REVISION AP.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MCF- MAIN CONDENSATE AND FEEDWATER SYSTEM  
 3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
29		W		A	M	P
13						
NO DATE		DESCRIPTION		RVD	CKD	APD
		REVISION				
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF FEEDWATER (MAIN)						
UNIT 1						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-36		SHEET 2				0

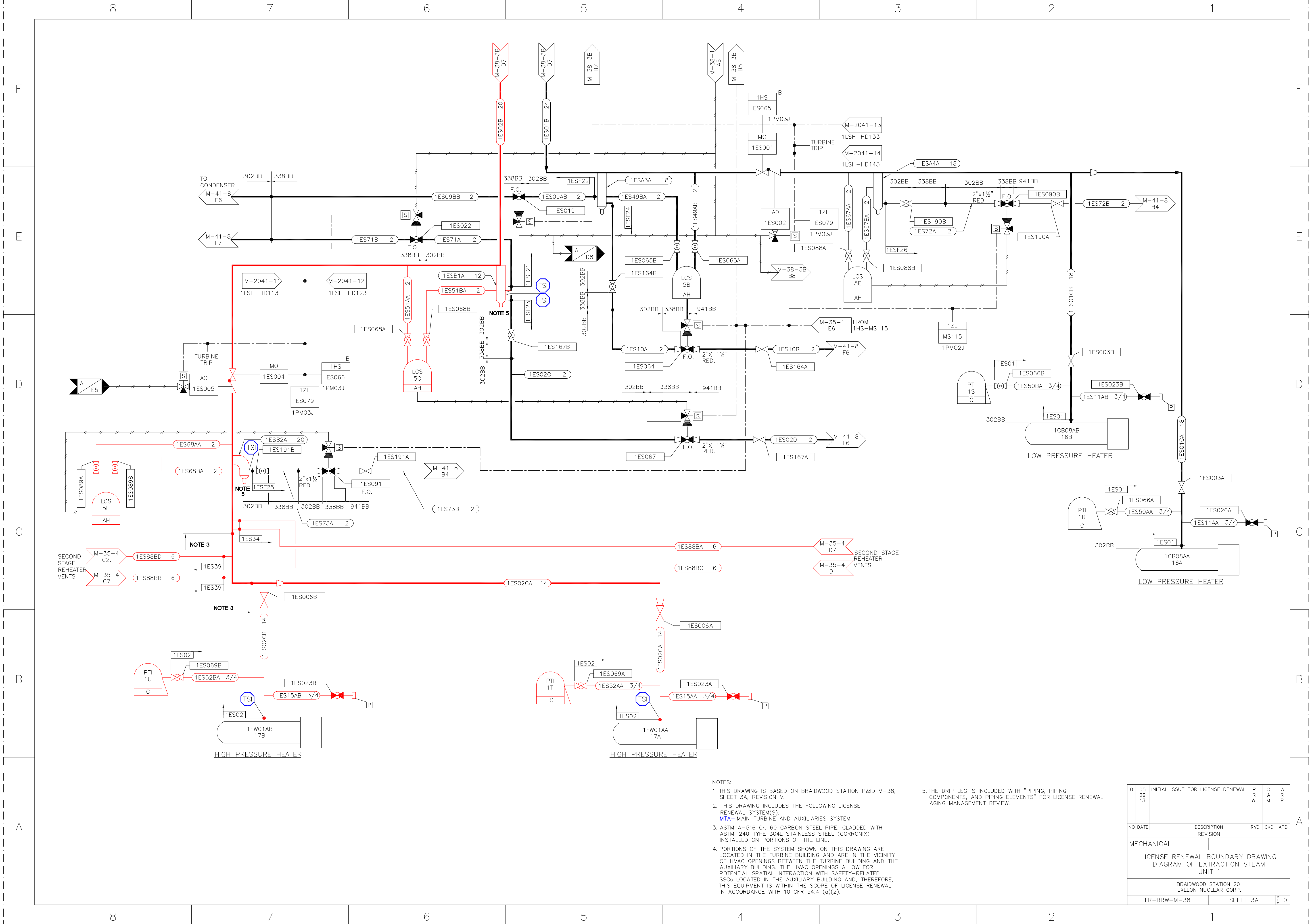




NOTE 3

- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-37, SHEET 1, REVISION BG.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 AFW-AUXILIARY FEEDWATER SYSTEM  
 MCF-MAIN CONDENSATE AND FEEDWATER SYSTEM  
 SWS-SERVICE WATER SYSTEM
  3. THE AFW PUMP DISCHARGE VALVES FAIL-AS-IS ON TOTAL LOSS OF INSTRUMENT AIR. THE INSTRUMENT AIR COMPONENTS DO NOT SUPPORT ANY SYSTEM INTENDED FUNCTIONS AND THEREFORE ARE NOT IN SCOPE FOR LICENSE RENEWAL.

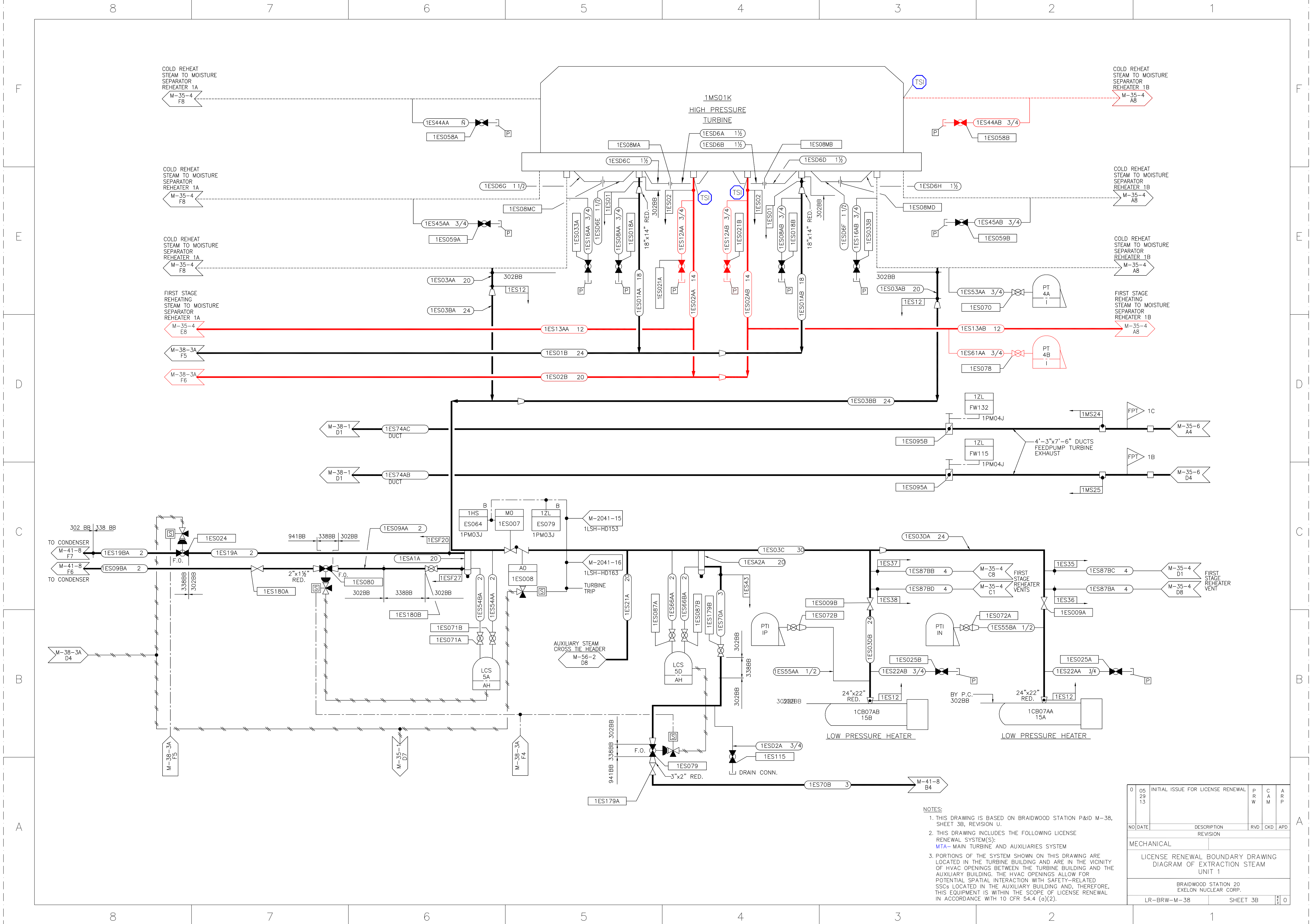
05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	J	J	P	A
				K	P	R	
					J	P	
					O	D	
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING							
DIAGRAM OF AUXILIARY FEEDWATER							
UNIT 1							
BRAIDWOOD STATION 20							
EXELON NUCLEAR CORP.							
LR-BRW-M-37	SHEET 1						



- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-38, SHEET 3A, REVISION V.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MTA- MAIN TURBINE AND AUXILIARIES SYSTEM
  - ASTM A-516 Gr. 60 CARBON STEEL PIPE, CLADDED WITH ASTM-240 TYPE 304L STAINLESS STEEL (CORRONIX) INSTALLED ON PORTIONS OF THE LINE.
  - PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).
  - THE DRIP LEG IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A
29	13		R	A	R
			W	M	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF EXTRACTION STEAM					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-38		SHEET 3A		0	

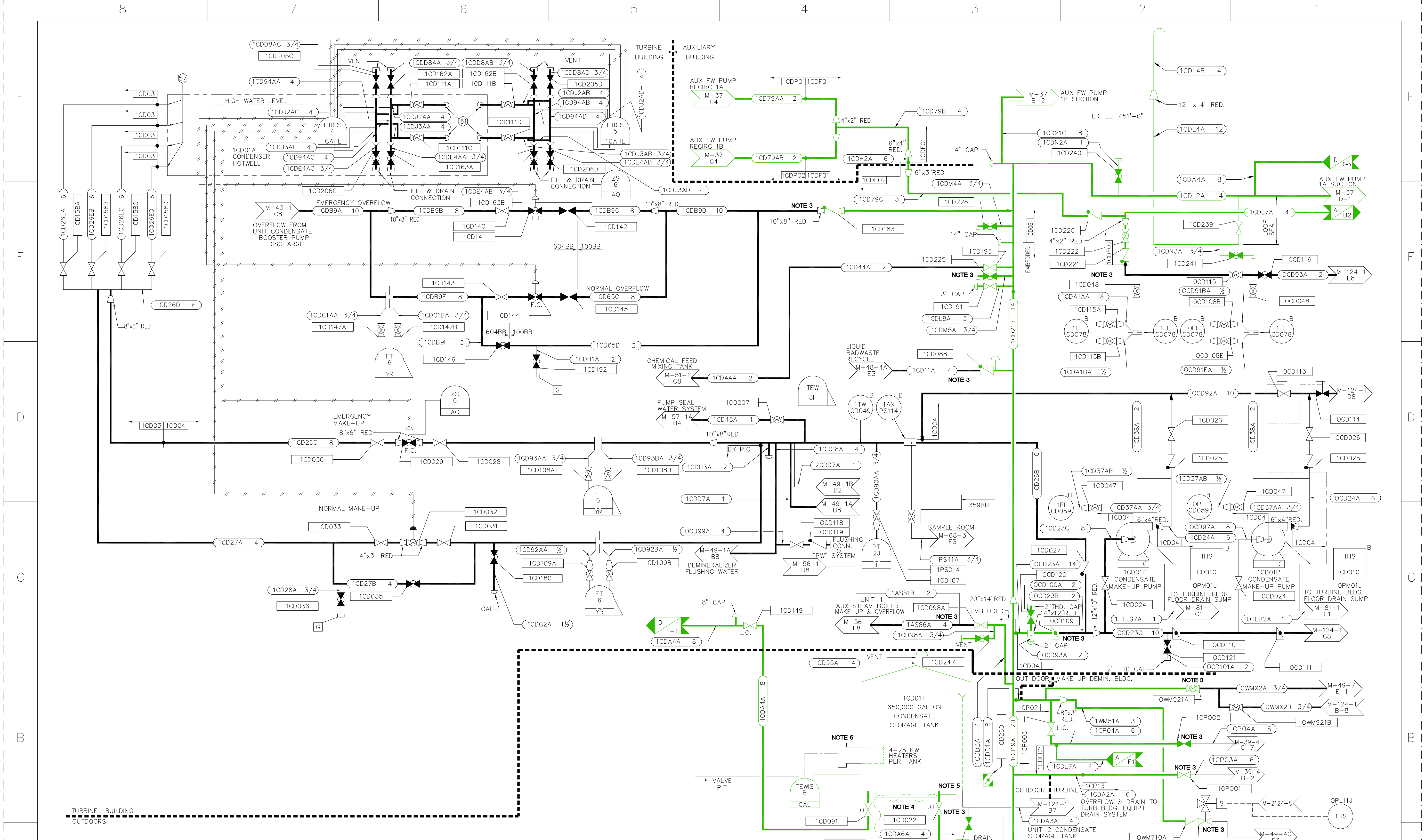




NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-38, SHEET 3B, REVISION U.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MTA - MAIN TURBINE AND AUXILIARIES SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

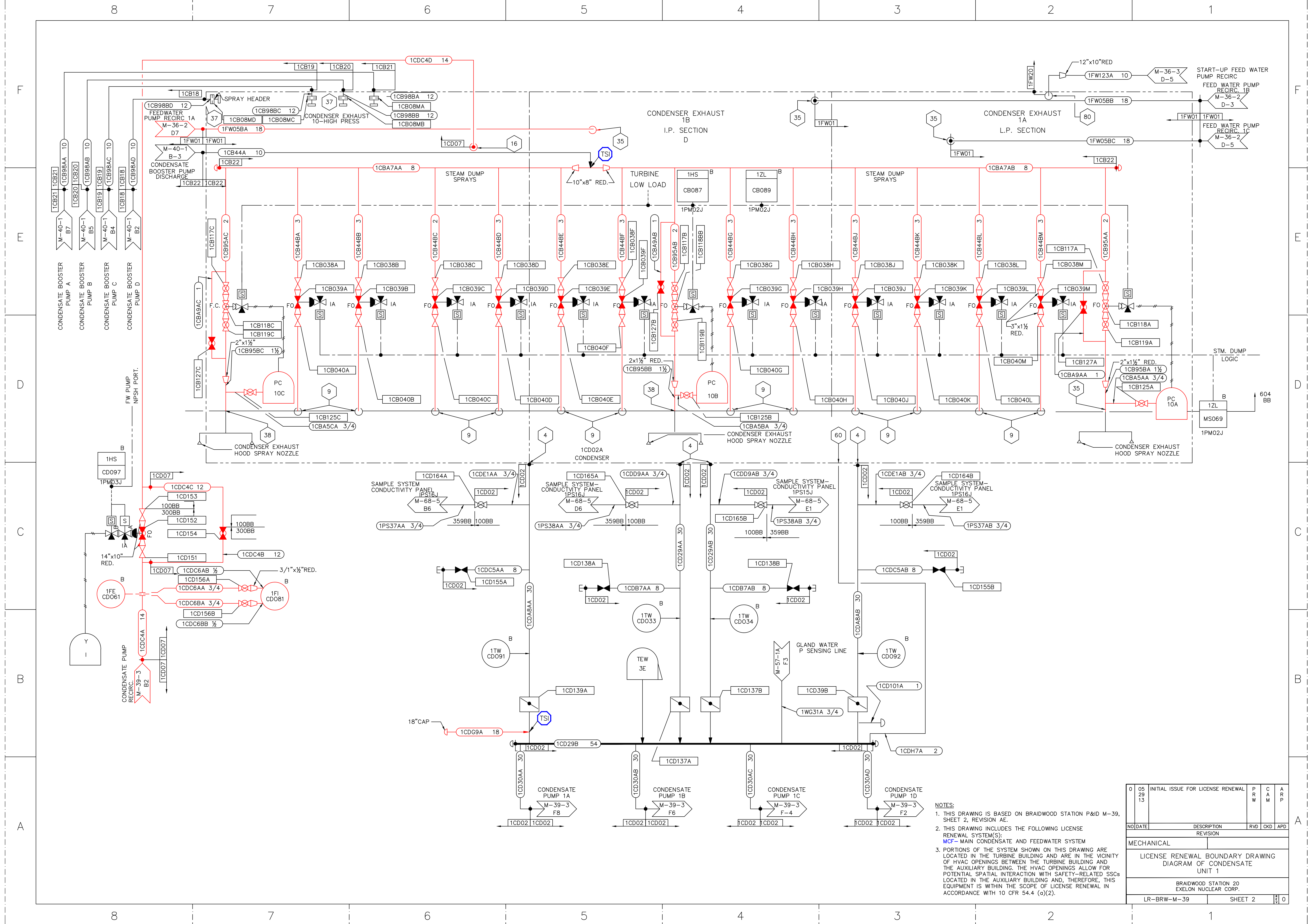
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
	29		W				P
	13						
NO DATE		DESCRIPTION	RVD	CKD	APD		
		REVISION					
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF EXTRACTION STEAM UNIT 1							
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.							
LR-BRW-M-38			SHEET 3B		0		



- NOTES:**
1. THIS DRAWING IS BASED ON BRAIWOOD STATION P&ID M-39, SHEET 1, REVISION AX
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MCF- MAIN CONDENSATE AND FEEDWATER SYSTEM
  3. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT IS NOT LOCATED IN THE VICINITY OF SAFETY-RELATED COMPONENTS, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  4. HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  5. THE STANDPIPE SUPPORTS THE (A)(3) FUNCTION OF THE CONDENSATE STORAGE TANK BY MAINTAINING AN ADEQUATE WATER INVENTORY FOR THE AUXILIARY FEEDWATER SYSTEM. THE ATTACHED DRAIN PIPING IS NOT REQUIRED TO SUPPORT THIS FUNCTION. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT IS NOT LOCATED IN THE VICINITY OF SAFETY-RELATED COMPONENTS, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  6. THE TANK HEATERS ARE INSTALLED IN ALUMINUM SLEEVES THAT ARE INTEGRAL TO THE CONDENSATE STORAGE TANKS AND ARE PART OF THE PRESSURE BOUNDARY. THE HEATER ELEMENTS DO NOT SUPPORT THE PRESSURE BOUNDARY FUNCTION OF THE TANK AND, THEREFORE, ARE NOT IN SCOPE.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
29	13		W		M		P
NO DATE		DESCRIPTION	RVD	CKD	APD		
		REVISION					
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CONDENSATE (MAKE-UP AND OVERFLOW) UNIT 1							
BRAIWOOD STATION 20 EXELON NUCLEAR CORP.							
LR-BRW-M-39		SHEET 1	0				



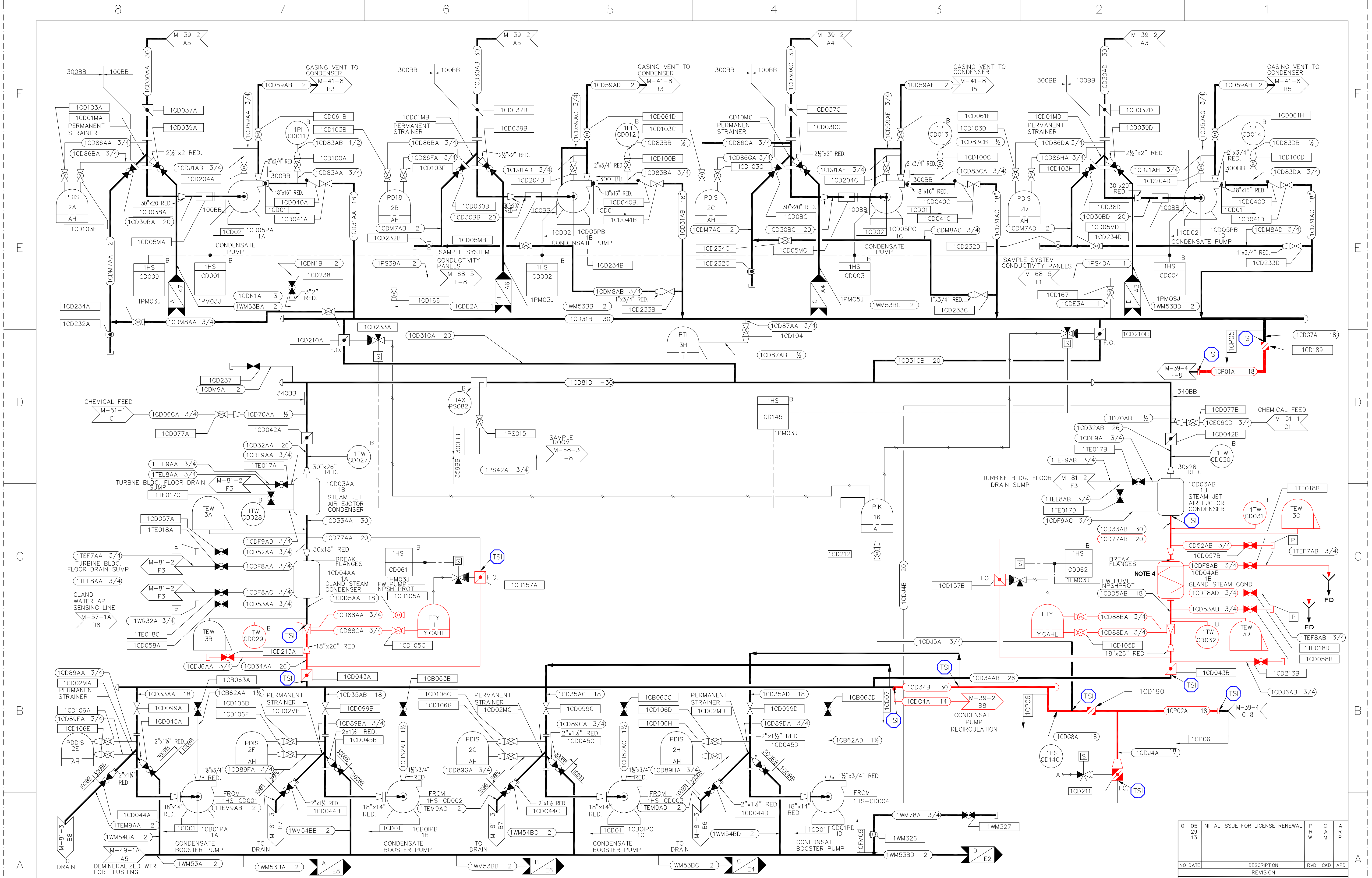


NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-39, SHEET 2, REVISION AE.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MCF - MAIN CONDENSATE AND FEEDWATER SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P
NO/DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CONDENSATE UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-39 SHEET 2 0				





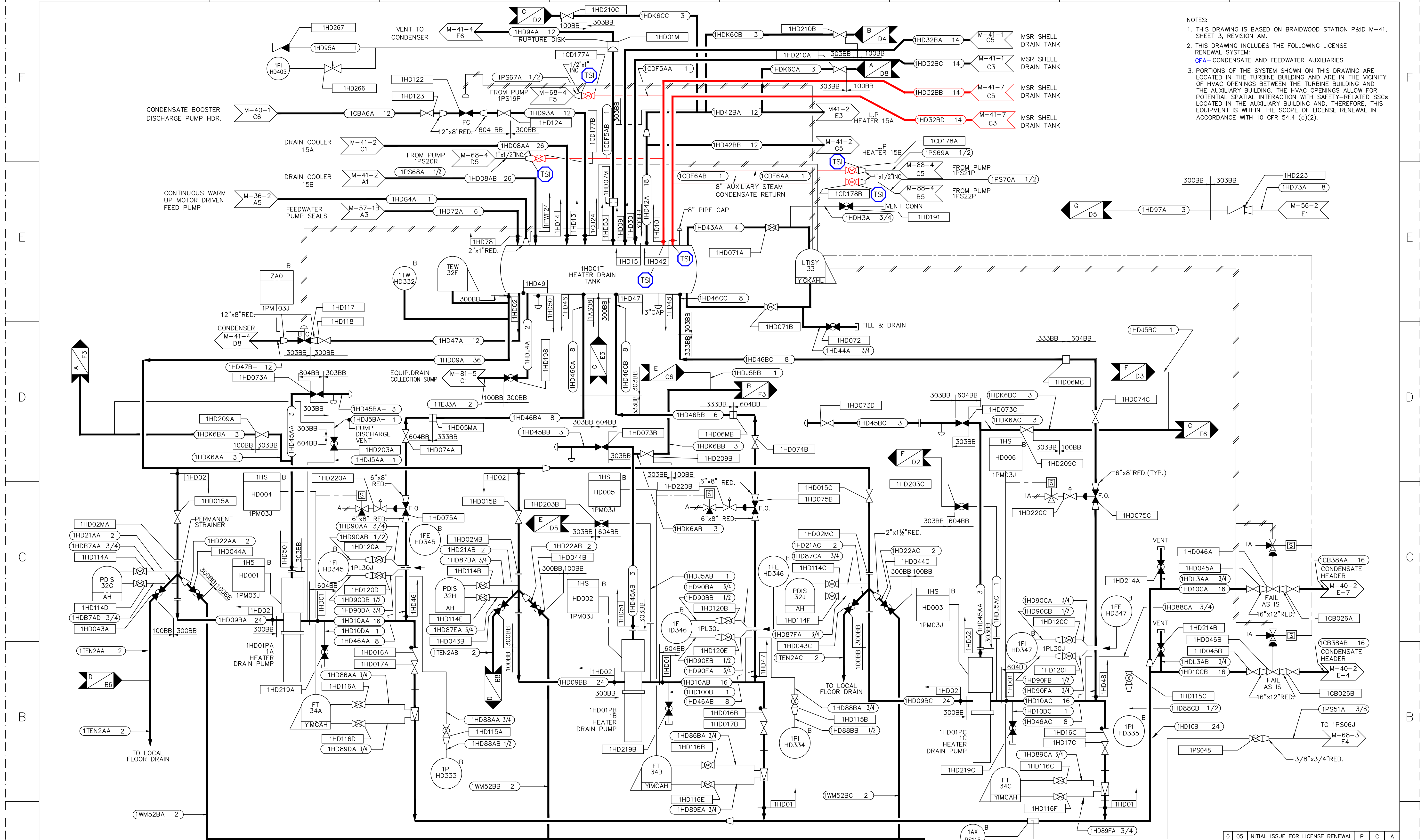
NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-39, SHEET 3, REVISION AH.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MCF - MAIN CONDENSATE AND FEEDWATER SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).
- THE GLAND STEAM CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE MAIN TURBINE AND AUXILIARIES SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE MAIN CONDENSATE AND FEEDWATER SYSTEM. THE TUBES AND TUBE SHEET ARE ENCLOSED AND DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
29		W		M		P
13						
NO DATE		DESCRIPTION		RVD	CKD	APD
		REVISION				
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF CONDENSATE						
UNIT 1						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-39						
SHEET 3						
0						

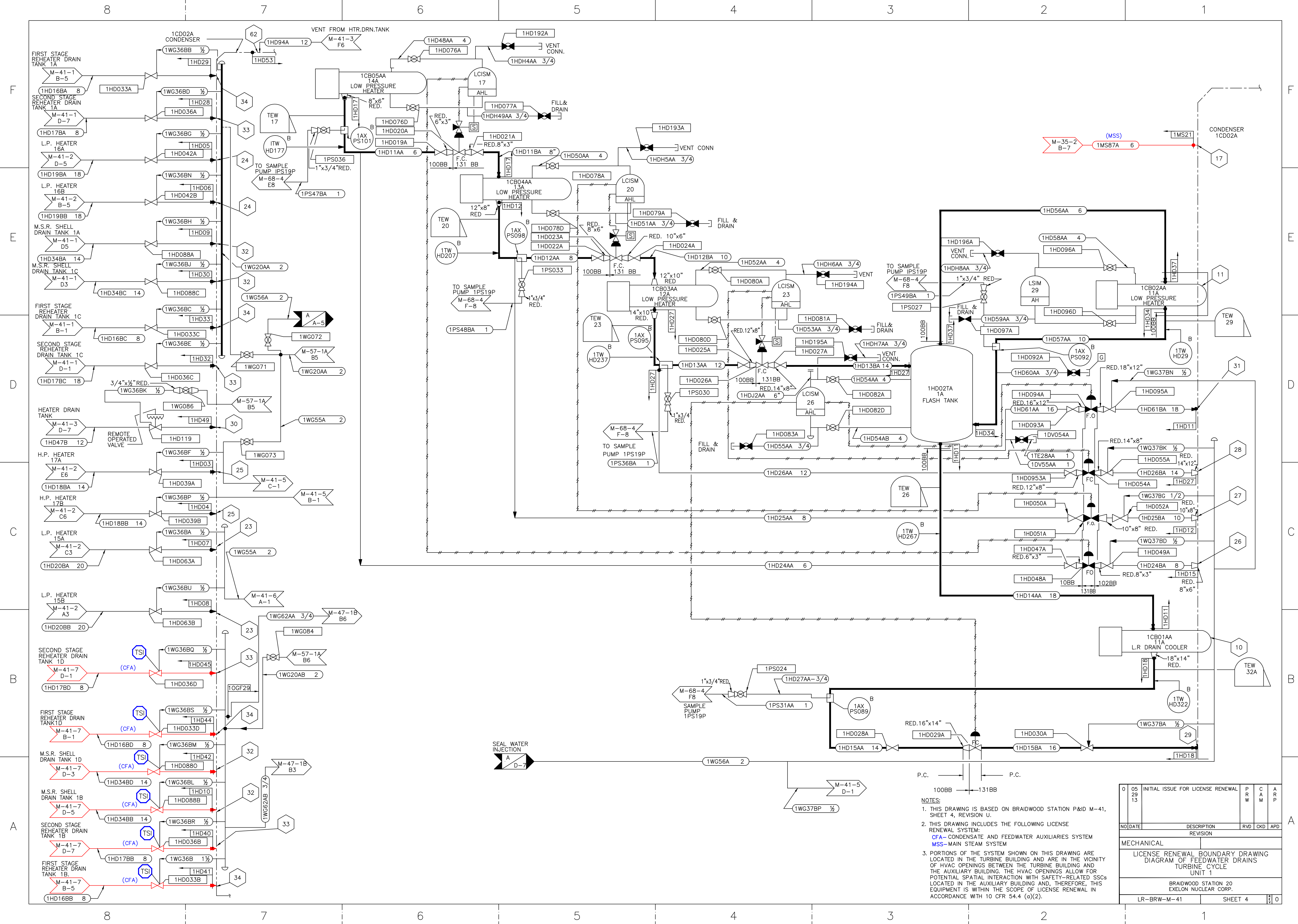


NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-41, SHEET 3, REVISION AM.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM:  
 CFA- CONDENSATE AND FEEDWATER AUXILIARIES  
 3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).



05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FEEDWATER DRAIN TURBINE CYCLE UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-41 SHEET 3 0				



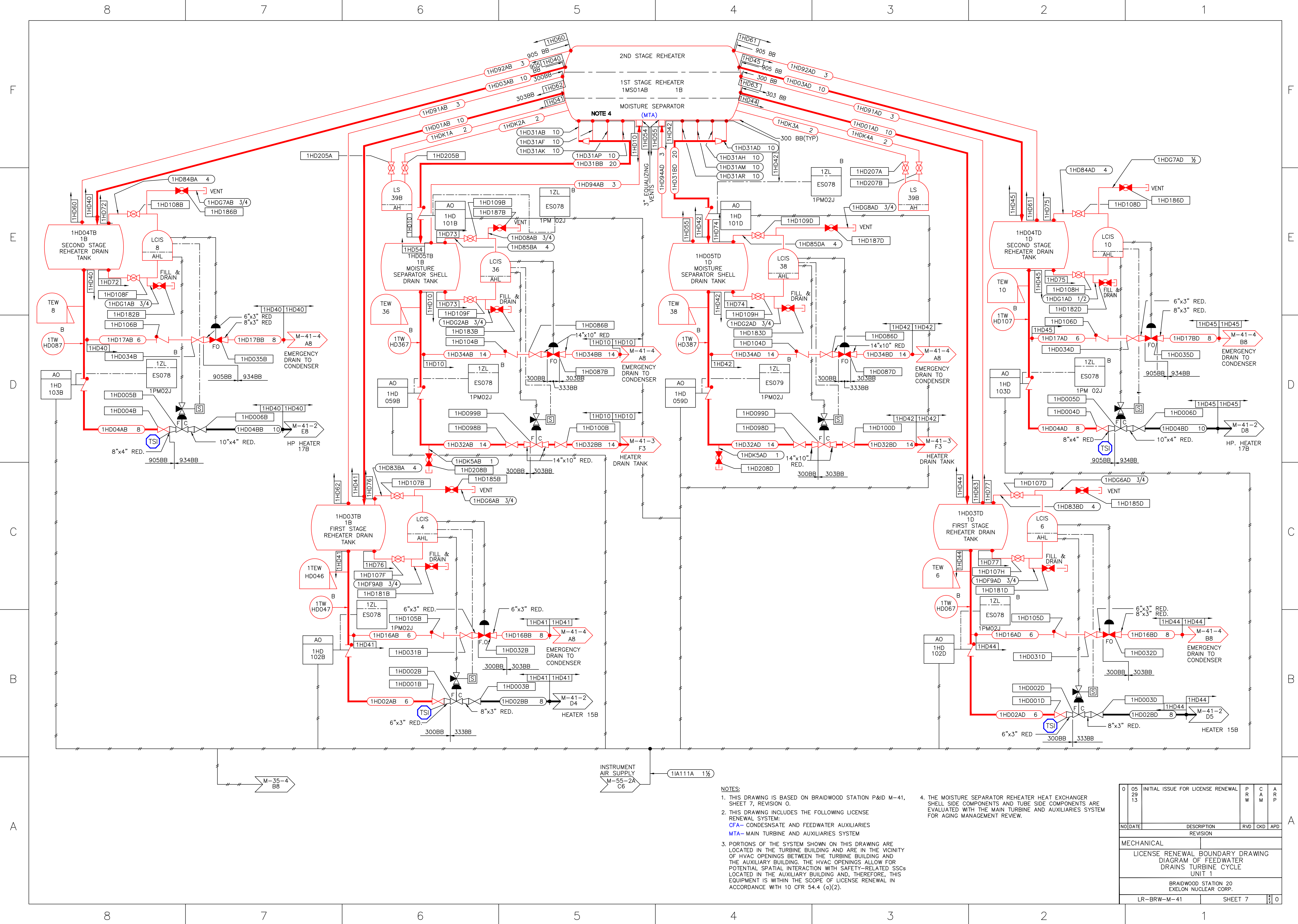


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-41, SHEET 4, REVISION U.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM:  
 CFA - CONDENSATE AND FEEDWATER AUXILIARIES SYSTEM  
 MSS - MAIN STEAM SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
	29		W	W	M	M	P
	13						
NO	DATE	DESCRIPTION	RVD	CKD	APD		
		REVISION					
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING							
DIAGRAM OF FEEDWATER DRAINS							
TURBINE CYCLE							
UNIT 1							
BRAIDWOOD STATION 20							
EXELON NUCLEAR CORP.							
LR-BRW-M-41			SHEET 4				0



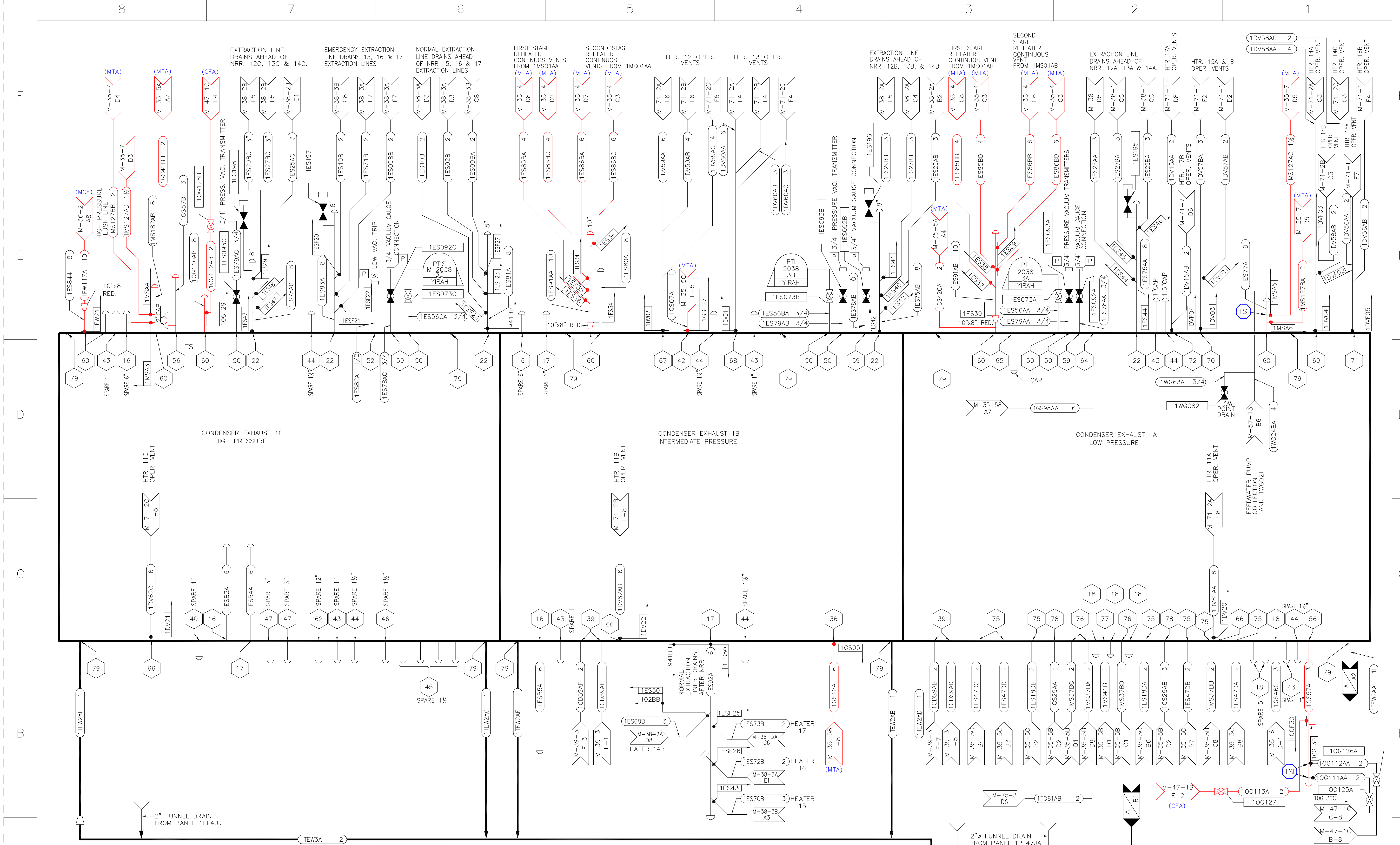


NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-41, SHEET 7, REVISION 0.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM:  
CFA- CONDENSATE AND FEEDWATER AUXILIARIES  
MTA- MAIN TURBINE AND AUXILIARIES SYSTEM
3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).
4. THE MOISTURE SEPARATOR REHEATER HEAT EXCHANGER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE MAIN TURBINE AND AUXILIARIES SYSTEM FOR AGING MANAGEMENT REVIEW.

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
		R	A	M	P
NO/DATE	DESCRIPTION	RVD	CKD	APD	
	REVISION				
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FEEDWATER DRAINS TURBINE CYCLE UNIT 1					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-41				SHEET 7	



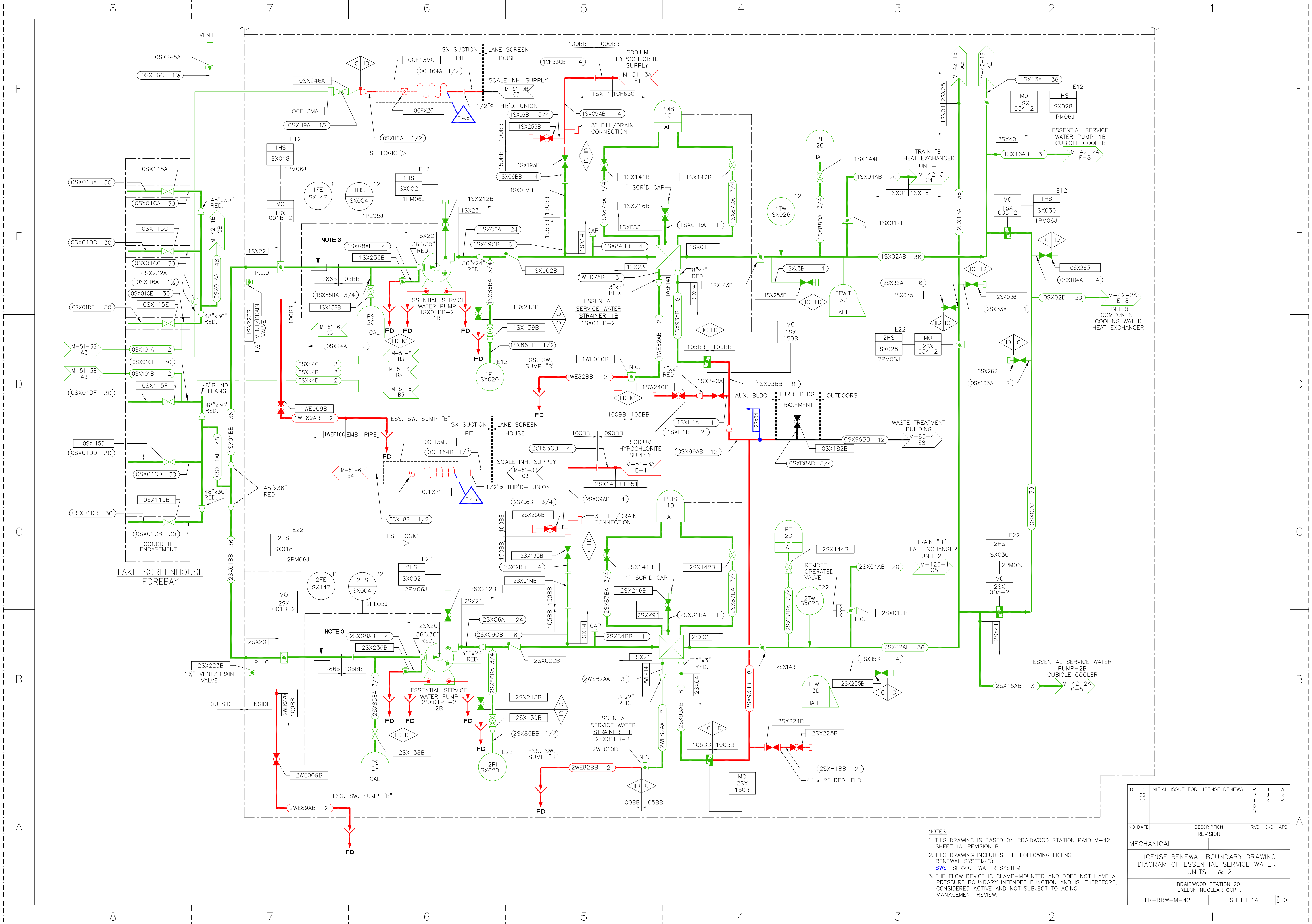


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-41, SHEET 8, REVISION AP.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
**CFA** - CONDENSATE AND FEEDWATER AUXILIARIES SYSTEM  
**MCF** - MAIN CONDENSATE AND FEEDWATER SYSTEM  
**MTA** - MAIN TURBINE AND AUXILIARIES SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
29		W				
13						
NO	DATE	DESCRIPTION	RVD	CKD	APD	
		REVISION				
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF MISCELLANEOUS VENTS AND						
DRAINS TO CONDENSATE						
UNIT 1						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-41		SHEET 8		0		



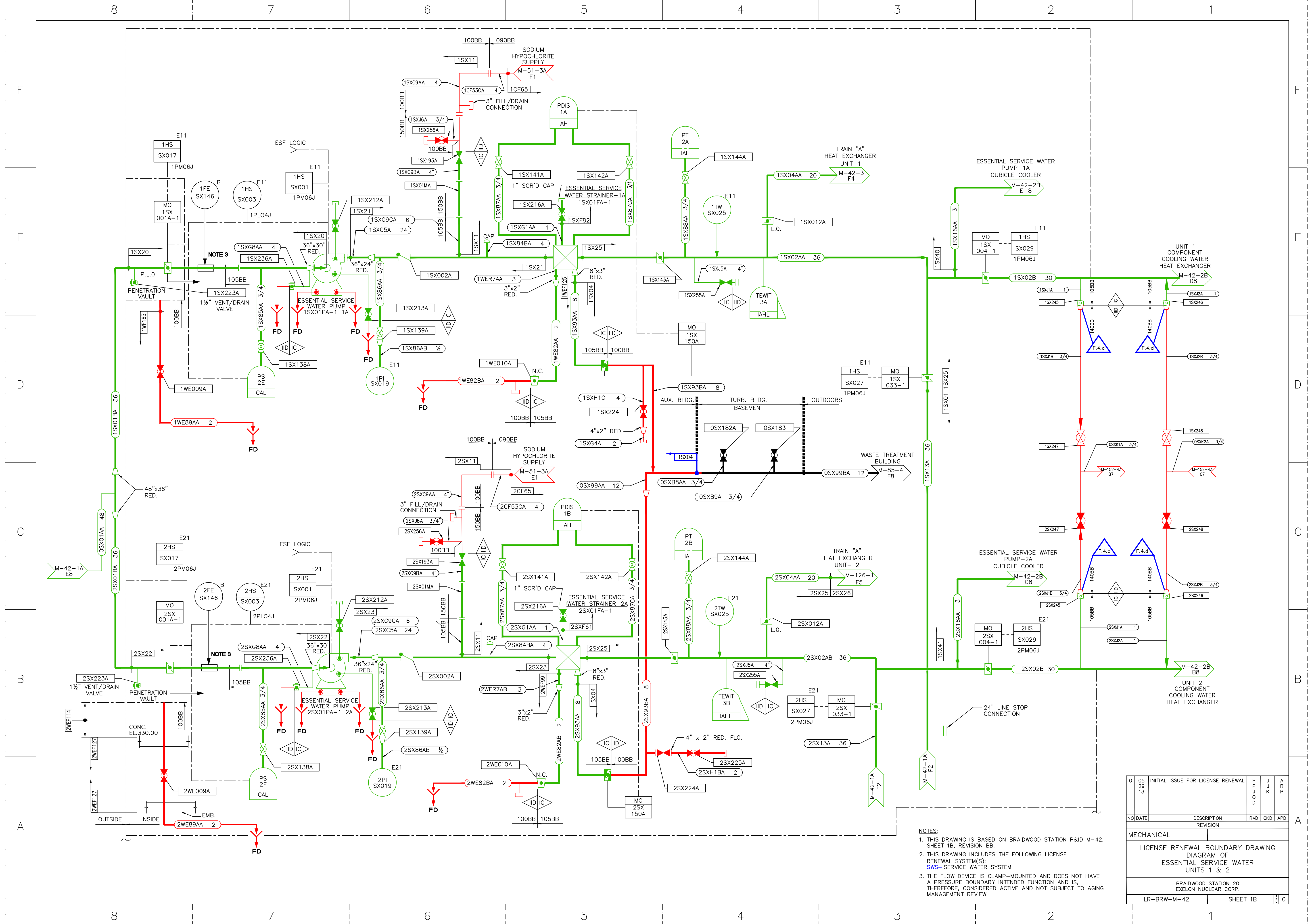


NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-42, SHEET 1A, REVISION B1.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SWS - SERVICE WATER SYSTEM
- THE FLOW DEVICE IS CLAMP-MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J J O D	J K K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF ESSENTIAL SERVICE WATER UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-42	SHEET 1A	0		



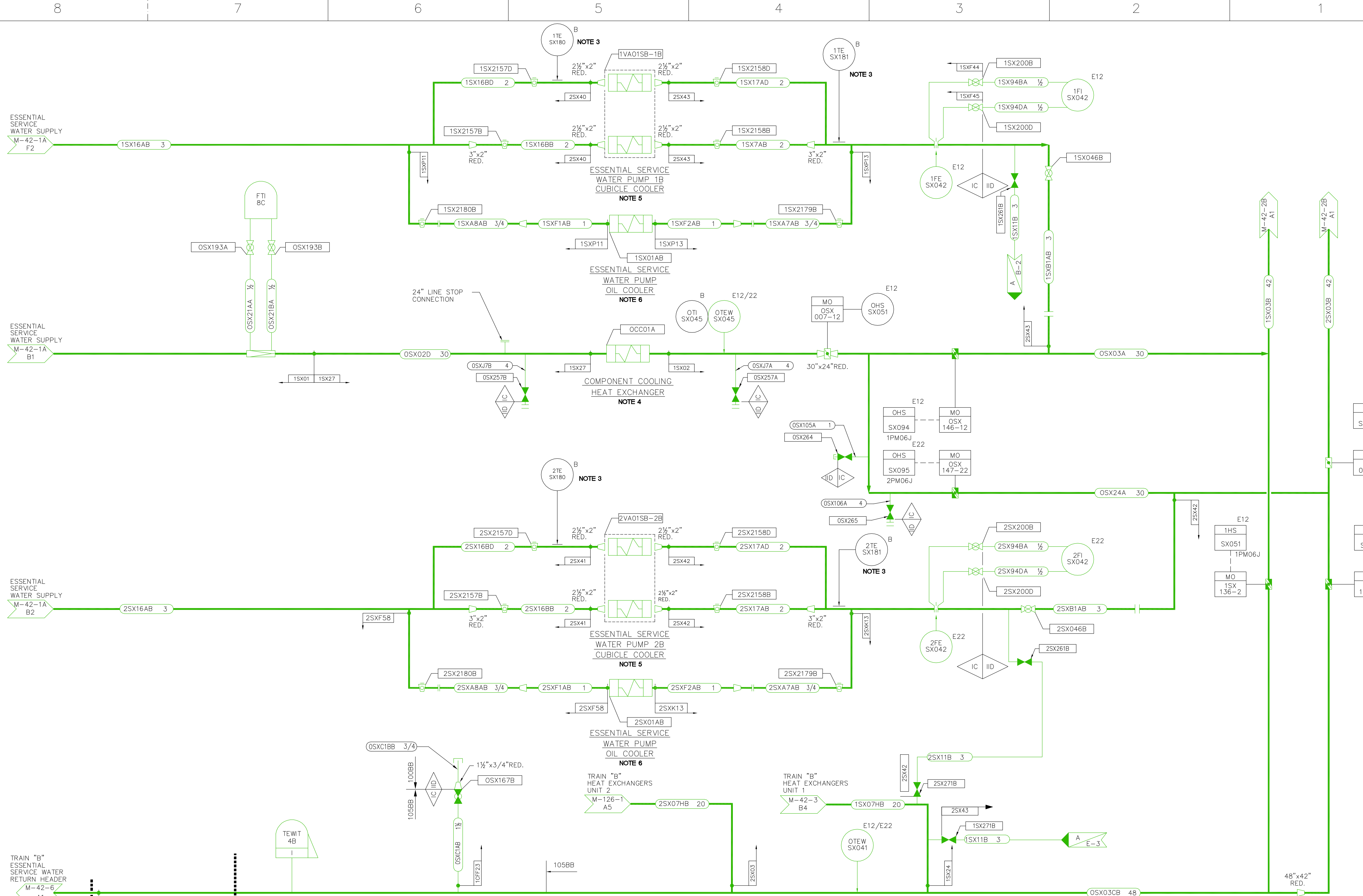


NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-42, SHEET 1B, REVISION BB.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SWS - SERVICE WATER SYSTEM
3. THE FLOW DEVICE IS CLAMP-MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P P J	K J	A P R
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF ESSENTIAL SERVICE WATER UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-42	SHEET 1B	0		

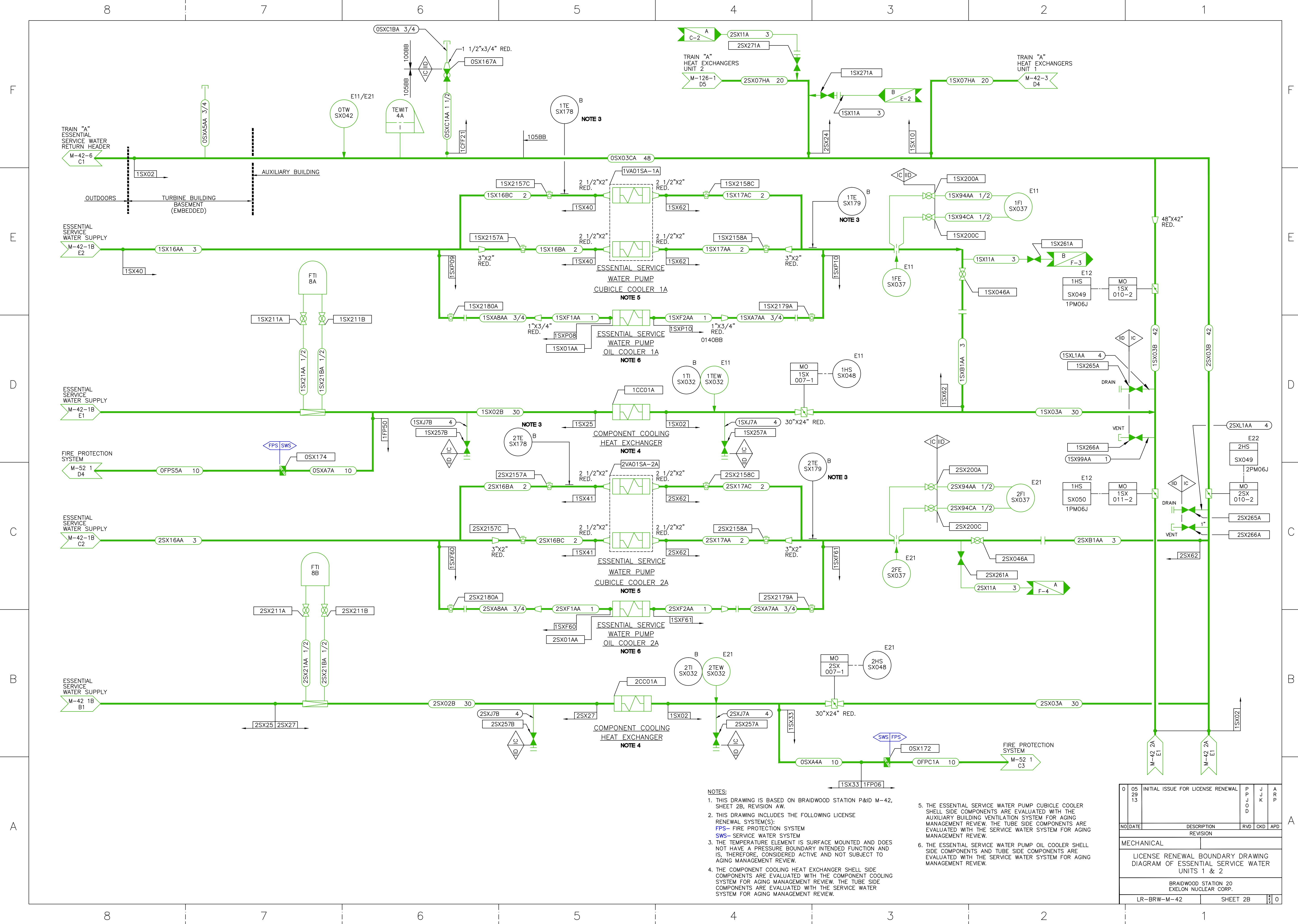




**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-42, SHEET 2A, REVISION AU.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SWS- SERVICE WATER SYSTEM
3. THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
4. THE COMPONENT COOLING HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
5. THE ESSENTIAL SERVICE WATER PUMP CUBICLE COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
6. THE ESSENTIAL SERVICE WATER PUMP OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

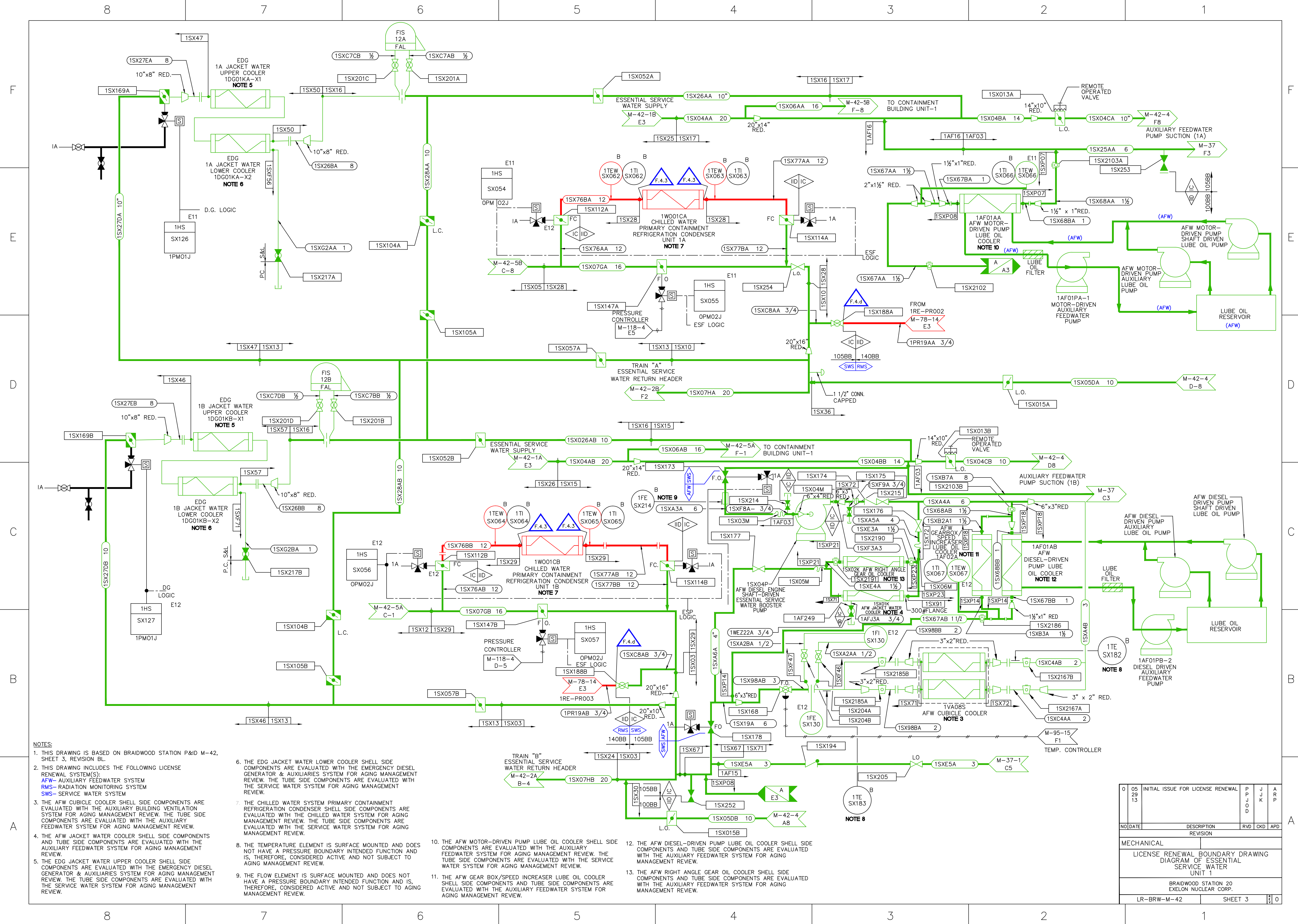
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
		P	J	R
		J	K	P
		O		
		D		
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF ESSENTIAL SERVICE WATER UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-42		SHEET 2A		0



- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-42, SHEET 2B, REVISION AW.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS- FIRE PROTECTION SYSTEM  
SWS- SERVICE WATER SYSTEM
  - THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - THE COMPONENT COOLING HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE ESSENTIAL SERVICE WATER PUMP CUBICLE COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE ESSENTIAL SERVICE WATER PUMP OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL SHEET 2B, REVISION AW.	P	J	A
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF ESSENTIAL SERVICE WATER UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-42			SHEET 2B		0



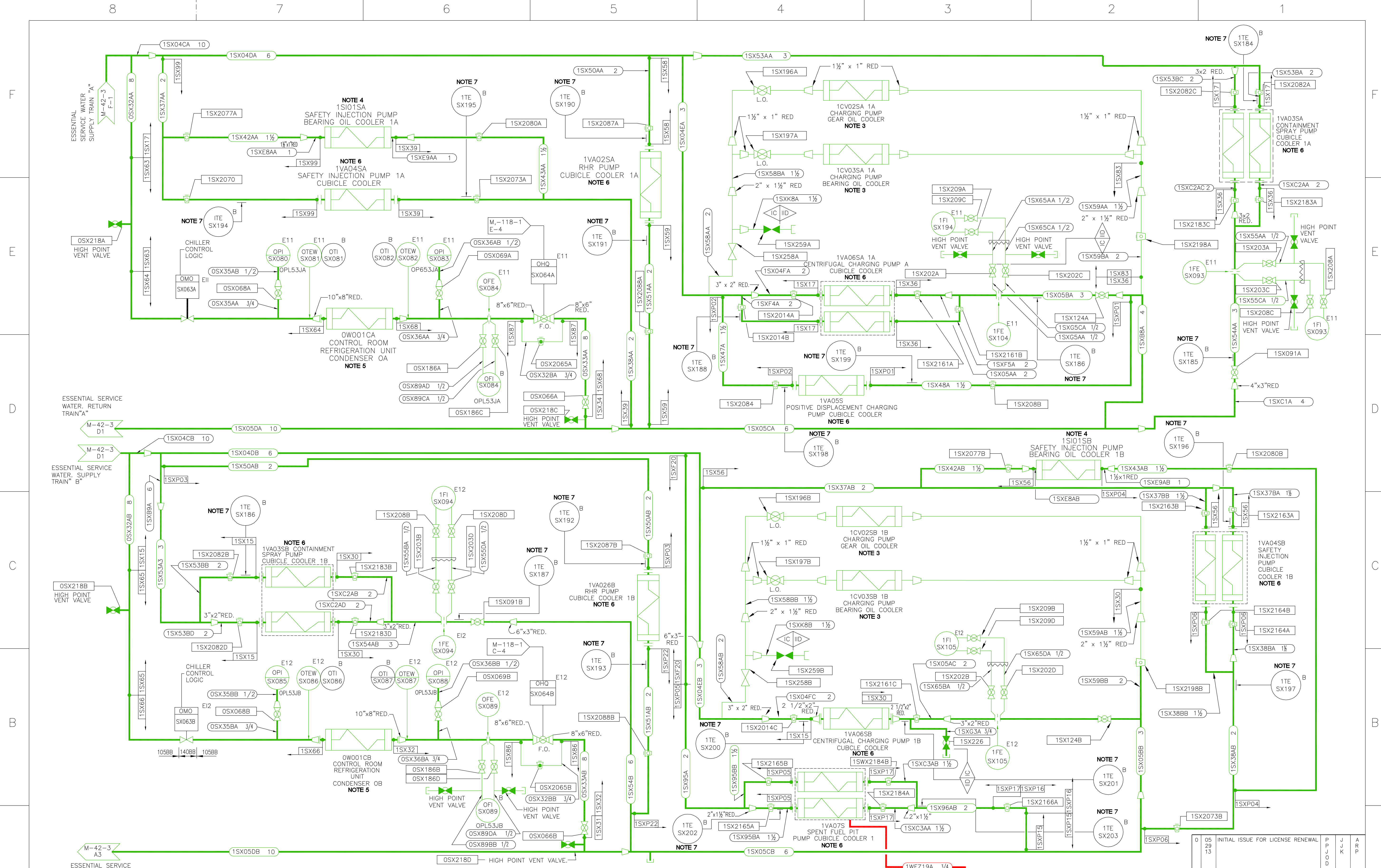


**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-42, SHEET 3, REVISION BL.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 AFW- AUXILIARY FEEDWATER SYSTEM  
 RMS- RADIATION MONITORING SYSTEM  
 SWS- SERVICE WATER SYSTEM
3. THE AFW CUBICLE COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.
4. THE AFW JACKET WATER COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.
5. THE EDG JACKET WATER UPPER COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
6. THE EDG JACKET WATER LOWER COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
7. THE CHILLED WATER SYSTEM PRIMARY CONTAINMENT REFRIGERATION CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
8. THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
9. THE FLOW ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
10. THE AFW MOTOR-DRIVEN PUMP LUBE OIL COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
11. THE AFW GEAR BOX/SPEED INCREASER LUBE OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.
12. THE AFW DIESEL-DRIVEN PUMP LUBE OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.
13. THE AFW RIGHT ANGLE GEAR OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J O D	J K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF ESSENTIAL SERVICE WATER UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-42 SHEET 3 0				

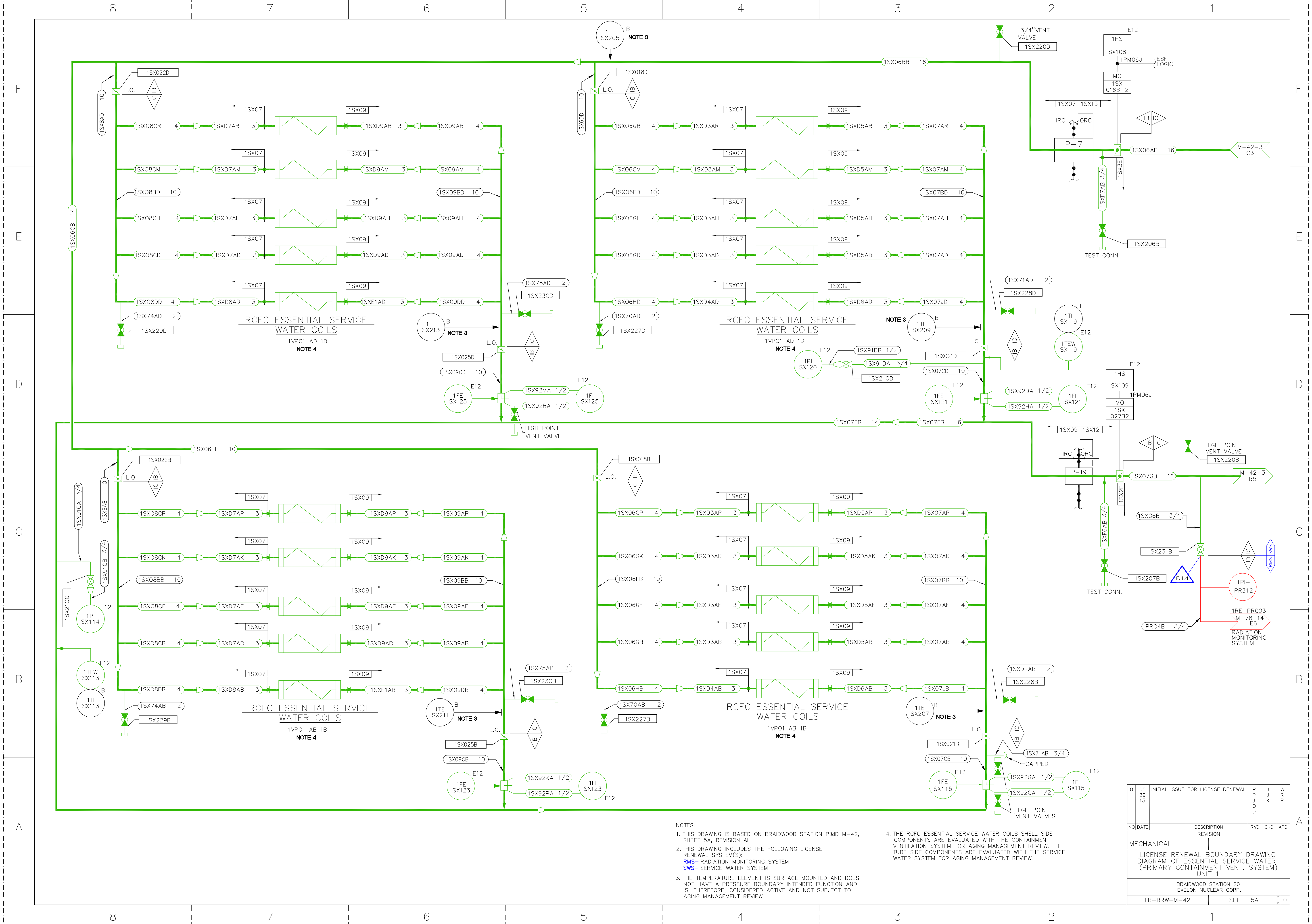




- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-42, SHEET 4, REVISION BB.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SWS- SERVICE WATER SYSTEM
  3. THE CHARGING PUMP GEAR OIL AND BEARING OIL COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  4. THE SAFETY INJECTION PUMP BEARING OIL COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE SAFETY INJECTION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  5. THE CONTROL ROOM REFRIGERATION UNIT CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  6. THE CONTAINMENT SPRAY PUMP, CENTRIFUGAL CHARGING PUMP, POSITIVE DISPLACEMENT CHARGING PUMP, RHR PUMP, SAFETY INJECTION PUMP, AND SPENT FUEL PIT PUMP CUBICLE COOLERS SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  7. THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
					P	J	A	R
					L	O	D	
NO DATE		DESCRIPTION		RVD	CKD	APD		
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF ESSENTIAL SERVICE WATER								
UNIT 1								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-42		SHEET 4						0





RCFC ESSENTIAL SERVICE WATER COILS  
1VP01 AD 1D  
NOTE 4

RCFC ESSENTIAL SERVICE WATER COILS  
1VP01 AD 1D  
NOTE 4

RCFC ESSENTIAL SERVICE WATER COILS  
1VP01 AB 1B  
NOTE 4

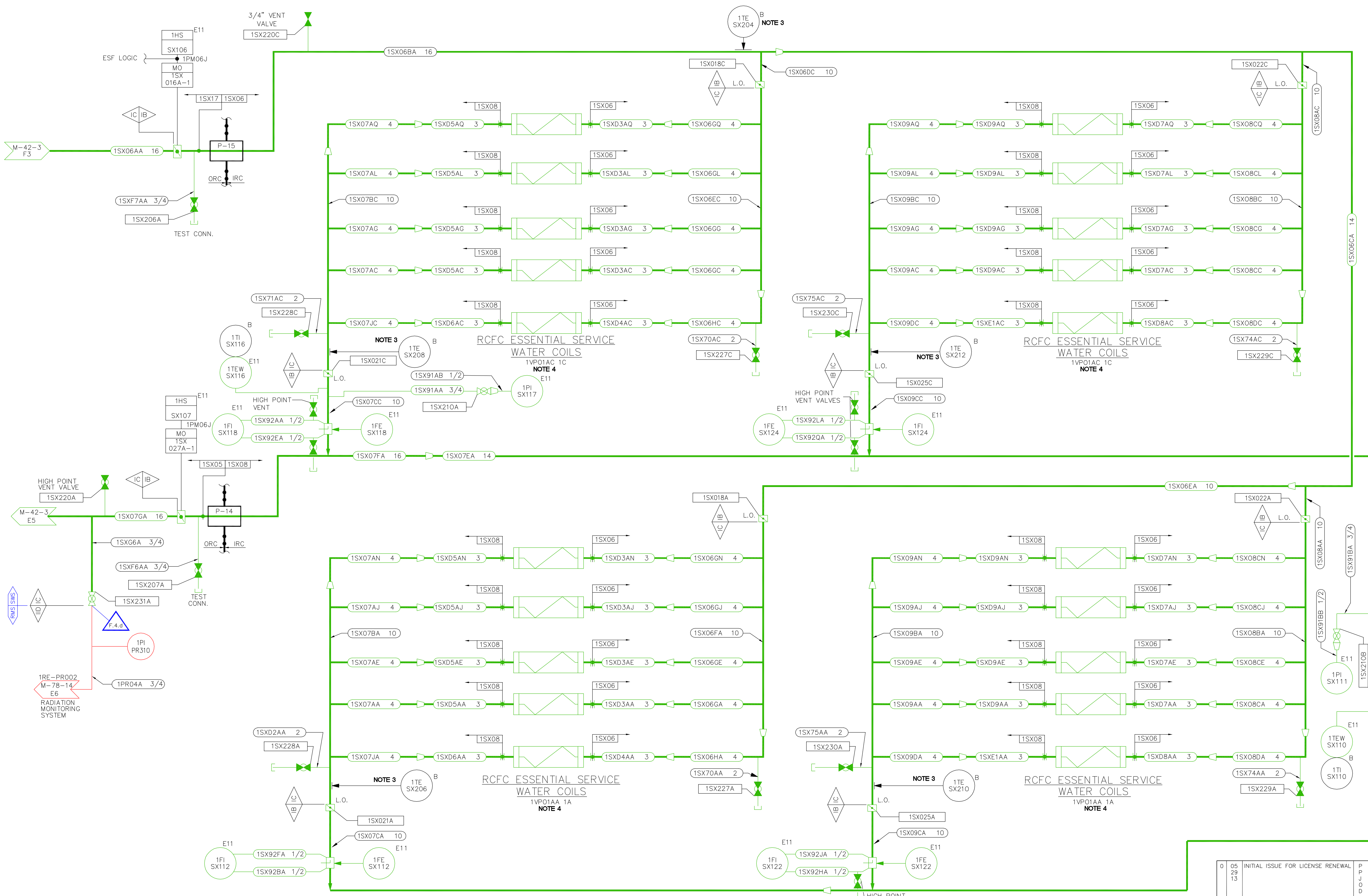
RCFC ESSENTIAL SERVICE WATER COILS  
1VP01 AB 1B  
NOTE 4

**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-42, SHEET 5A, REVISION AL.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
RMS- RADIATION MONITORING SYSTEM  
SWS- SERVICE WATER SYSTEM
3. THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

4. THE RCFC ESSENTIAL SERVICE WATER COILS SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29		P	J	R
13		O	K	P
		D		
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF ESSENTIAL SERVICE WATER (PRIMARY CONTAINMENT VENT. SYSTEM) UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-42		SHEET 5A		0



NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-42, SHEET 5B, REVISION AM.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
RMS - RADIATION MONITORING SYSTEM  
SWS - SERVICE WATER SYSTEM
3. THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
4. THE RCFC ESSENTIAL SERVICE WATER COILS SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
		O	K	R
		D		P
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF ESSENTIAL SERVICE WATER (PRIMARY CONTAINMENT VENT. SYSTEM) UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-42	SHEET 5B			0



8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

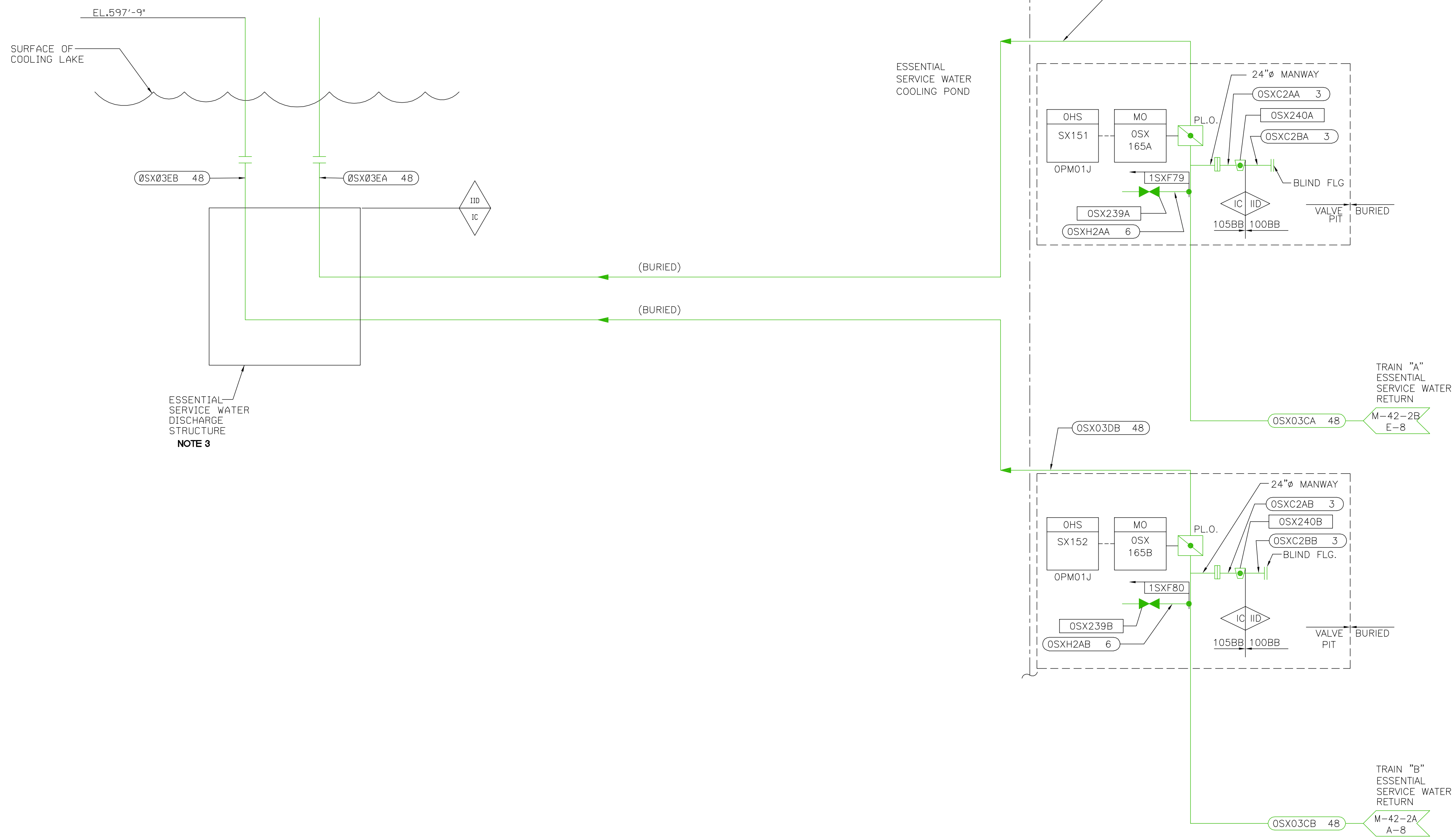
E

D

C

B

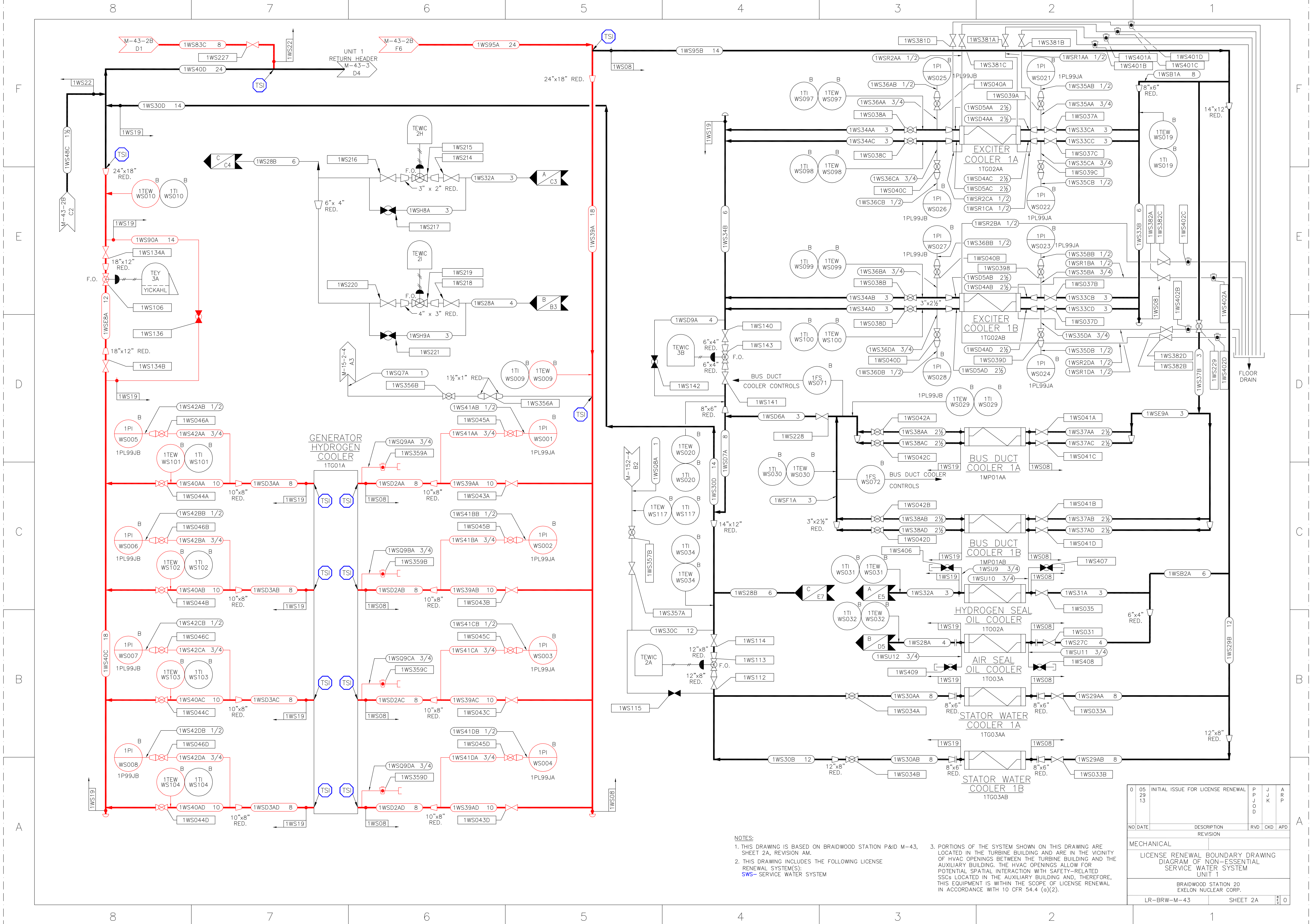
A



NOTE 3

- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-42, SHEET 6, REVISION T.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SWS- SERVICE WATER SYSTEM
  3. THE ESSENTIAL SERVICE WATER DISCHARGE STRUCTURE IS EVALUATED WITH LAKE SCREEN STRUCTURES FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

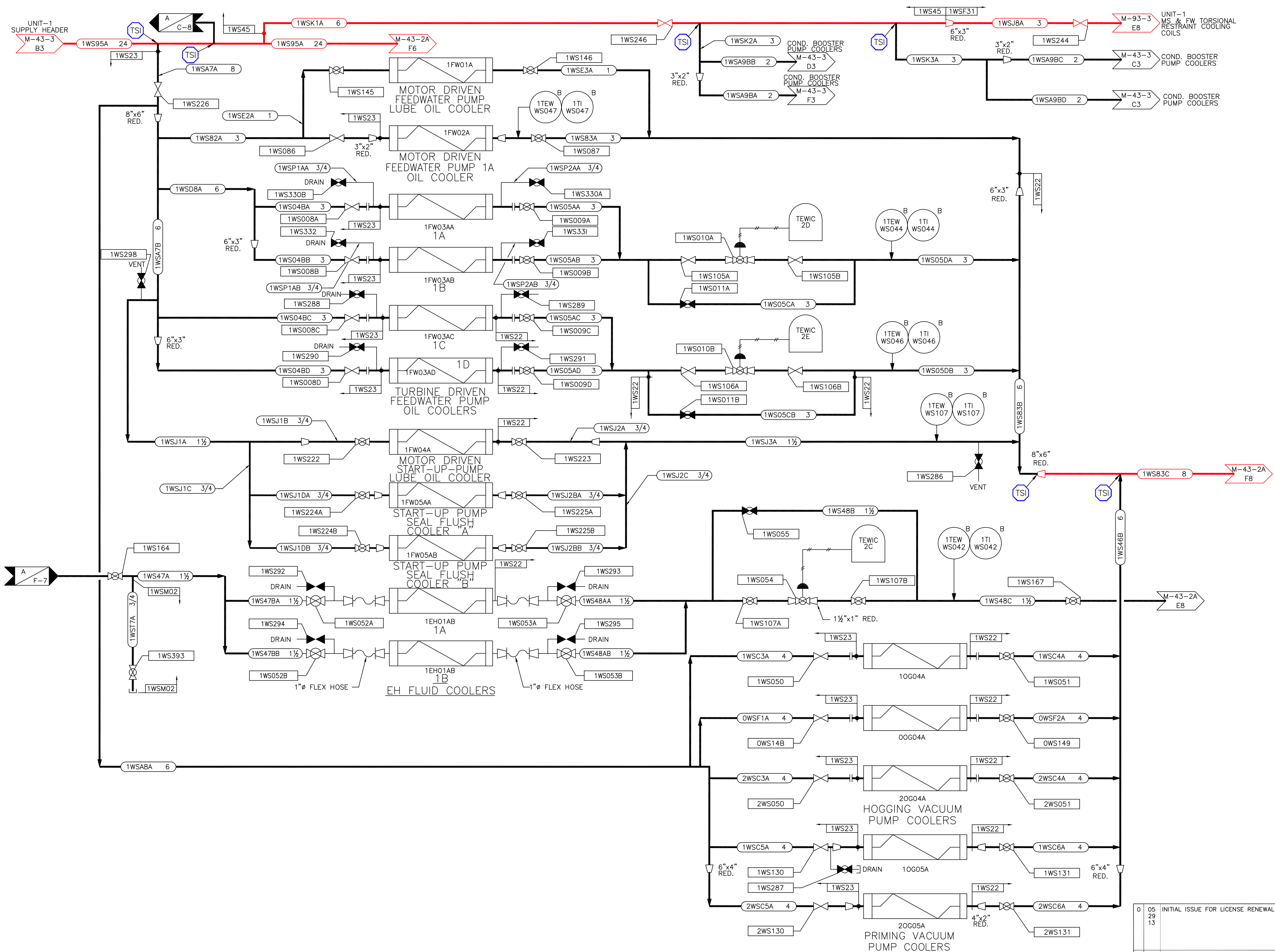
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J O D	J J K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF ESSENTIAL SERVICE WATER UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-42	SHEET 6			



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-43, SHEET 2A, REVISION AM.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 SWS - SERVICE WATER SYSTEM  
 3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
					P	J	A	R
					J	K		
					O			
NO	DATE			DESCRIPTION	RVD	CKD	APD	
				REVISION				
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF NON-ESSENTIAL								
SERVICE WATER SYSTEM								
UNIT 1								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-43 SHEET 2A								

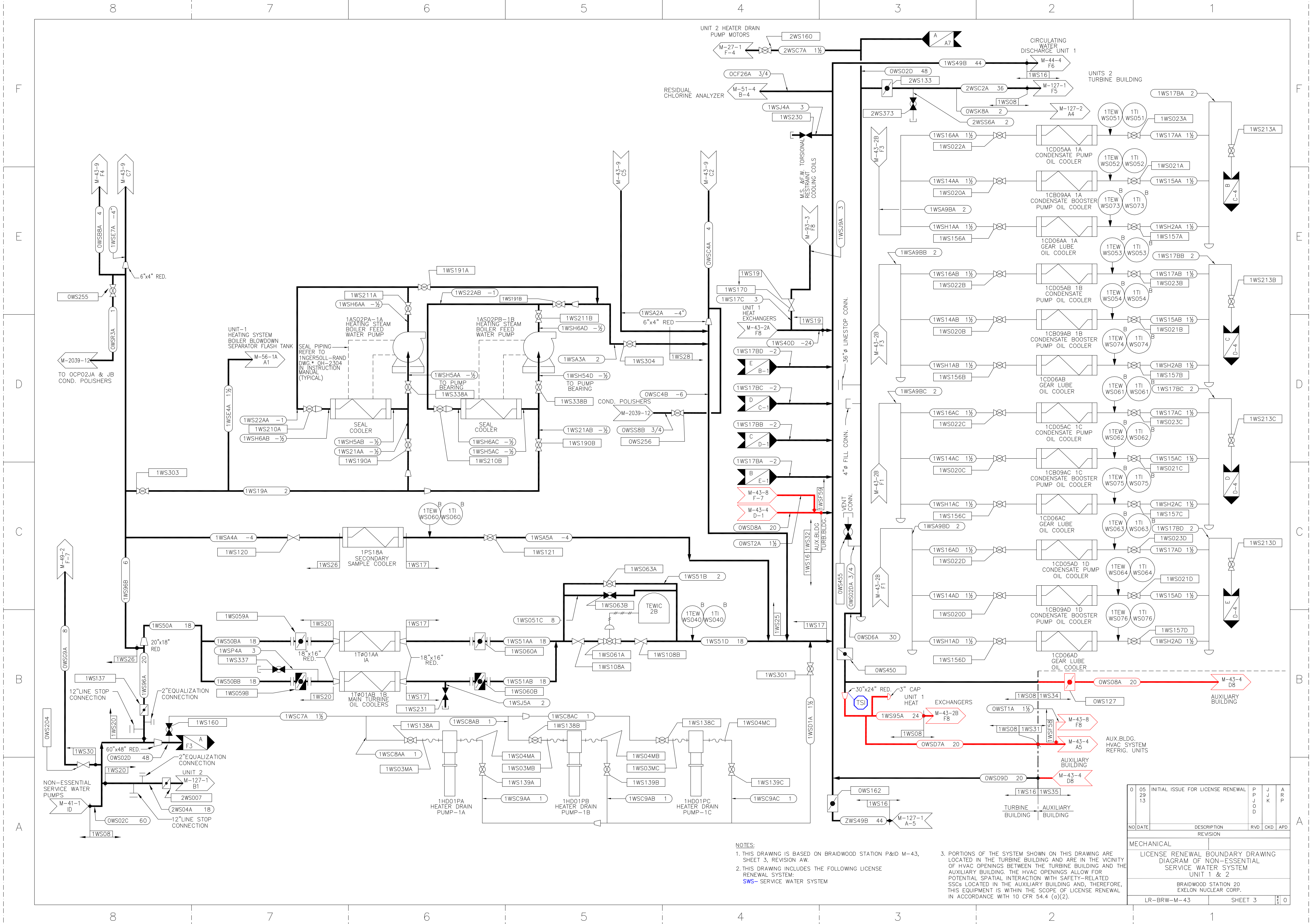




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-43, SHEET 2B, REVISION AG.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 SWS- SERVICE WATER SYSTEM  
 3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J J O D	J J K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF NON- ESSENTIAL SERVICE WATER SYSTEM UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-43		SHEET 2B		0



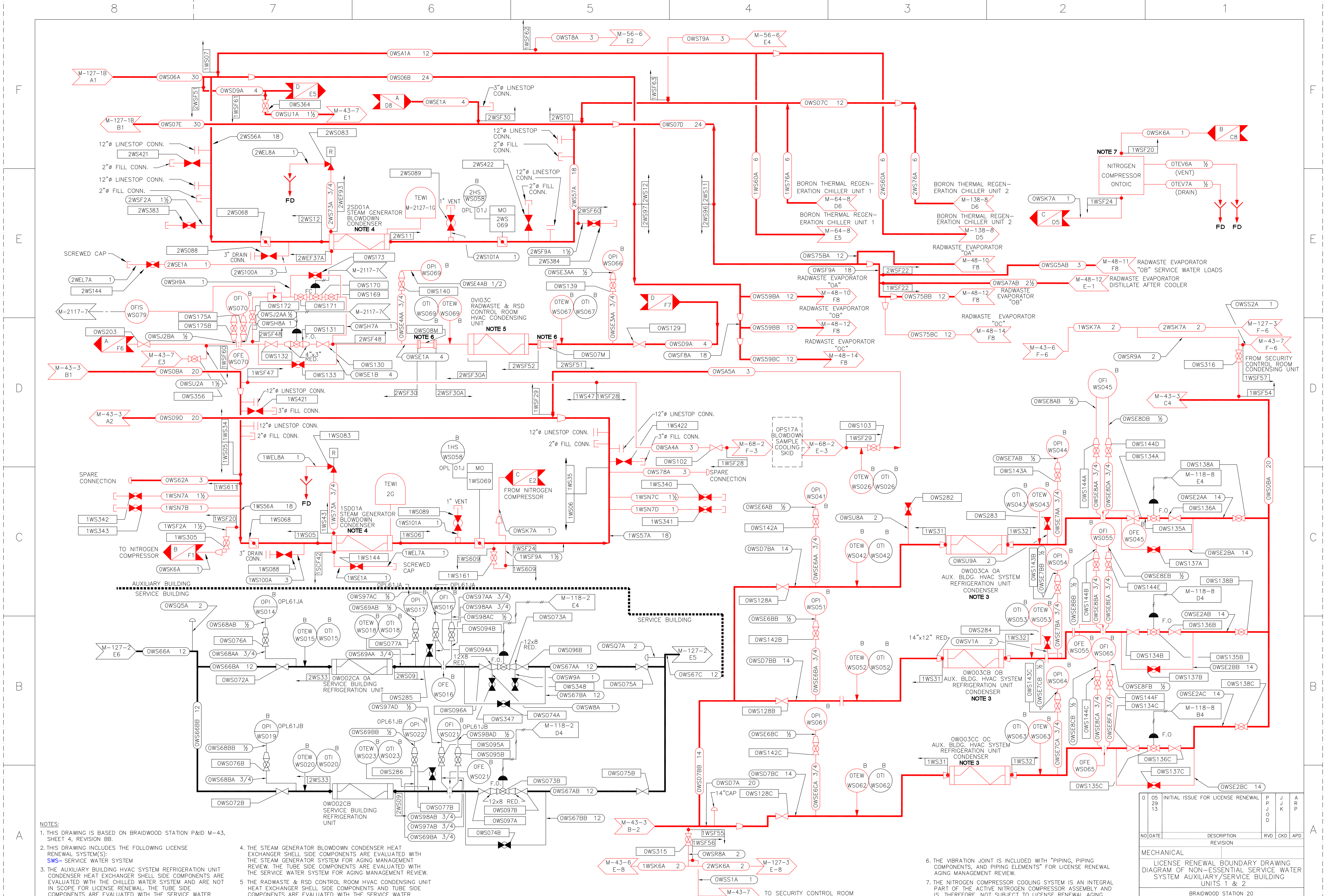


NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-43, SHEET 3, REVISION AW.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM:  
SWS- SERVICE WATER SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (g)(2).

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
				P	J	A	R
				J	K		
				O			
MECHANICAL				LICENSE RENEWAL BOUNDARY DRAWING			
NON-ESSENTIAL SERVICE WATER SYSTEM				UNIT 1 & 2			
BRAIDWOOD STATION 20				EXELON NUCLEAR CORP.			
LR-BRW-M-43				SHEET 3			

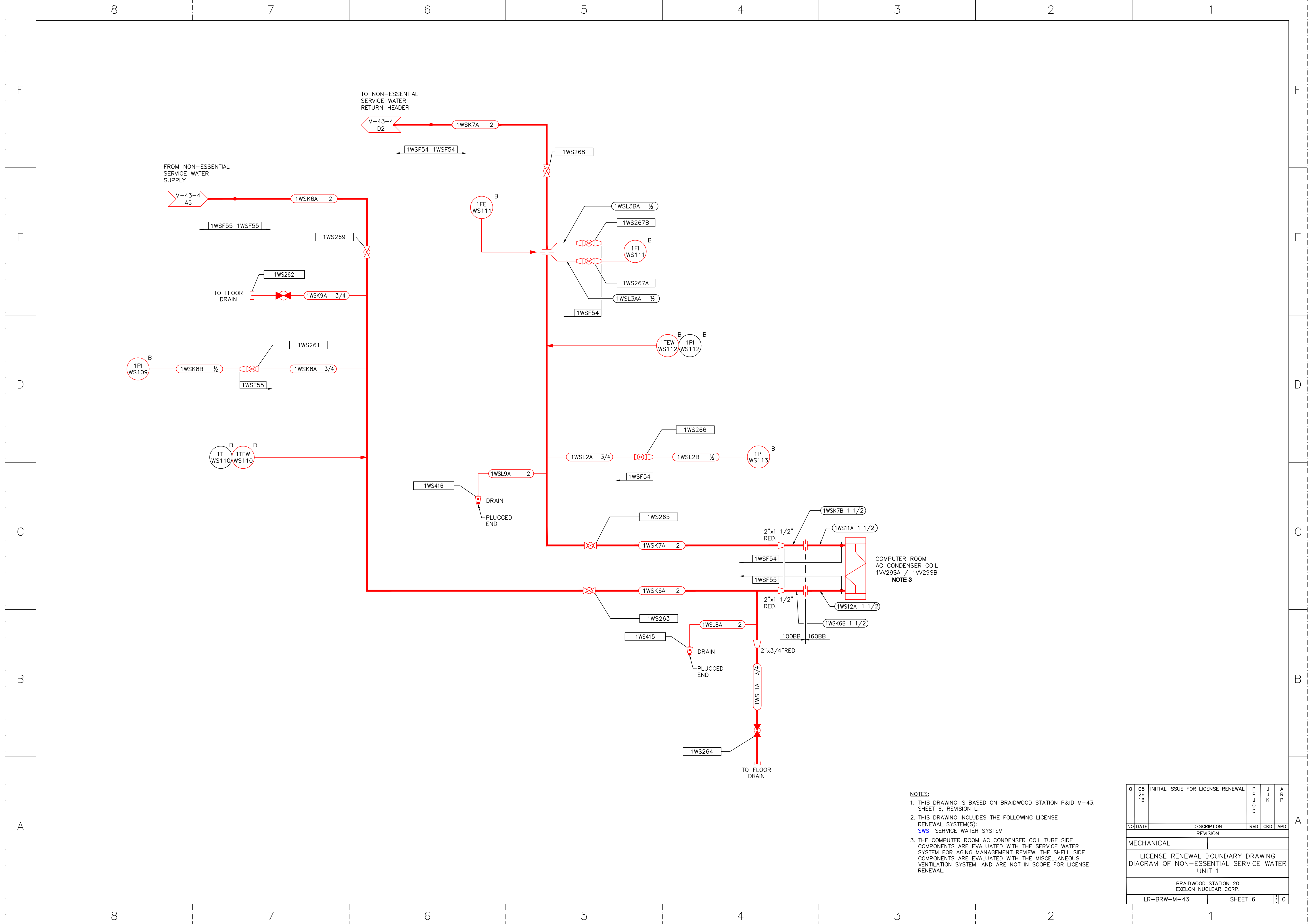




**NOTES:**  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-43, SHEET 4, REVISION BB.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 SWS- SERVICE WATER SYSTEM  
 3. THE AUXILIARY BUILDING HVAC SYSTEM REFRIGERATION UNIT CONDENSER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM AND ARE NOT IN SCOPE FOR LICENSE RENEWAL. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.  
 4. THE STEAM GENERATOR BLOWDOWN CONDENSER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE STEAM GENERATOR SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.  
 5. THE RADWASTE & RSD CONTROL ROOM HVAC CONDENSING UNIT HEAT EXCHANGER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

6. THE VIBRATION JOINT IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.  
 7. THE NITROGEN COMPRESSOR COOLING SYSTEM IS AN INTEGRAL PART OF THE ACTIVE NITROGEN COMPRESSOR ASSEMBLY AND IS, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
NO	DATE			DESCRIPTION	RVD	CKD	APD	
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF NON-ESSENTIAL SERVICE WATER SYSTEM AUXILIARY/SERVICE BUILDING UNITS 1 & 2								
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.								
LR-BRW-M-43 SHEET 4 0								



- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-43, SHEET 6, REVISION L.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SWS- SERVICE WATER SYSTEM
  - THE COMPUTER ROOM AC CONDENSER COIL TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE MISCELLANEOUS VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.

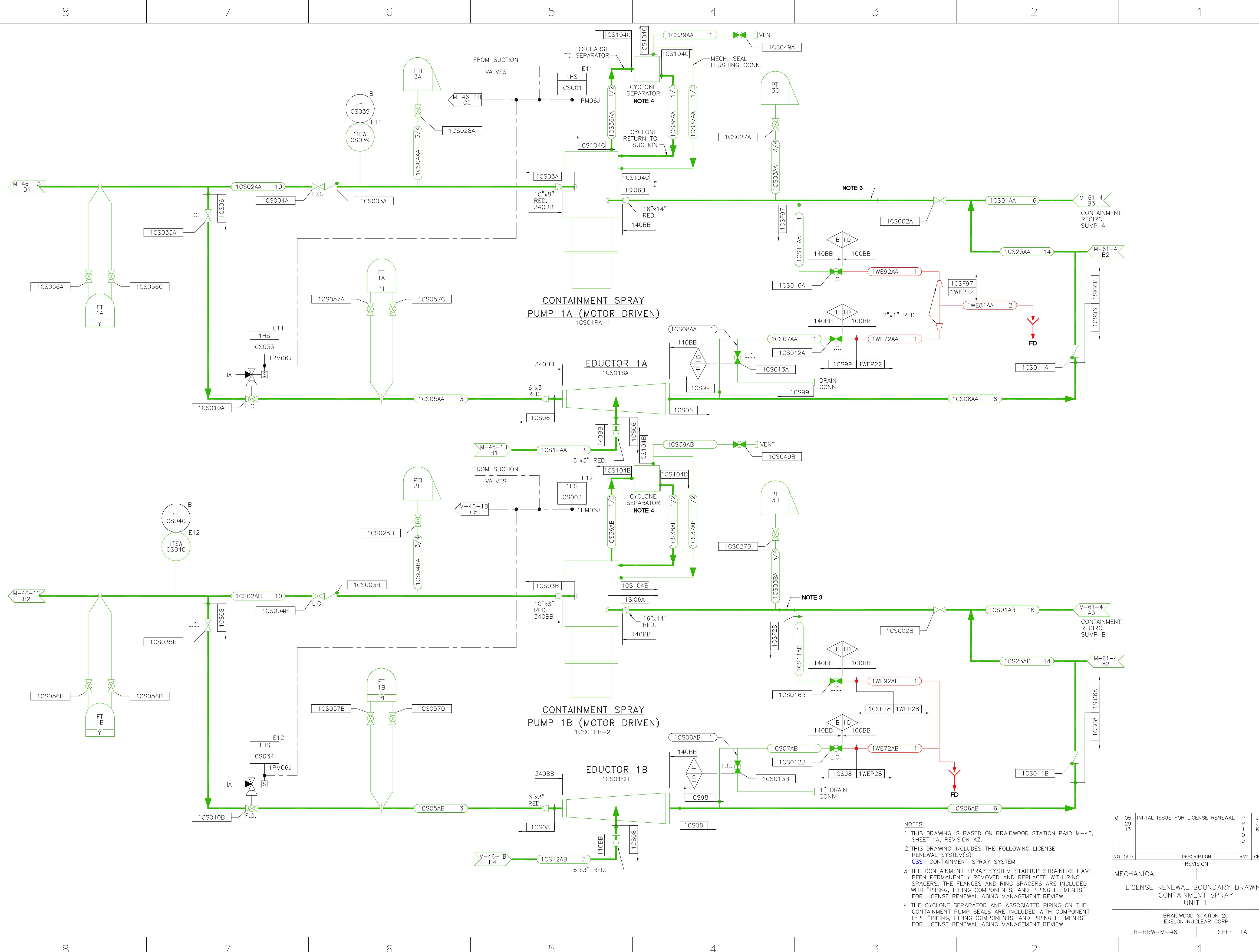
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		J	K	R
			O	D	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF NON-ESSENTIAL SERVICE WATER					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-43		SHEET 6		0	











- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-46, SHEET 1A, REVISION AZ.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CSS- CONTAINMENT SPRAY SYSTEM
  - THE CONTAINMENT SPRAY SYSTEM STARTUP STRAINERS HAVE BEEN PERMANENTLY REMOVED AND REPLACED WITH RING SPACERS. THE FLANGES AND RING SPACERS ARE INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE CYCLONE SEPARATOR AND ASSOCIATED PIPING ON THE CONTAINMENT PUMP SEALS ARE INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	
29		P	J	R	
13		J	K	P	
		O			
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
CONTAINMENT SPRAY					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-46		SHEET 1A		0	

8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

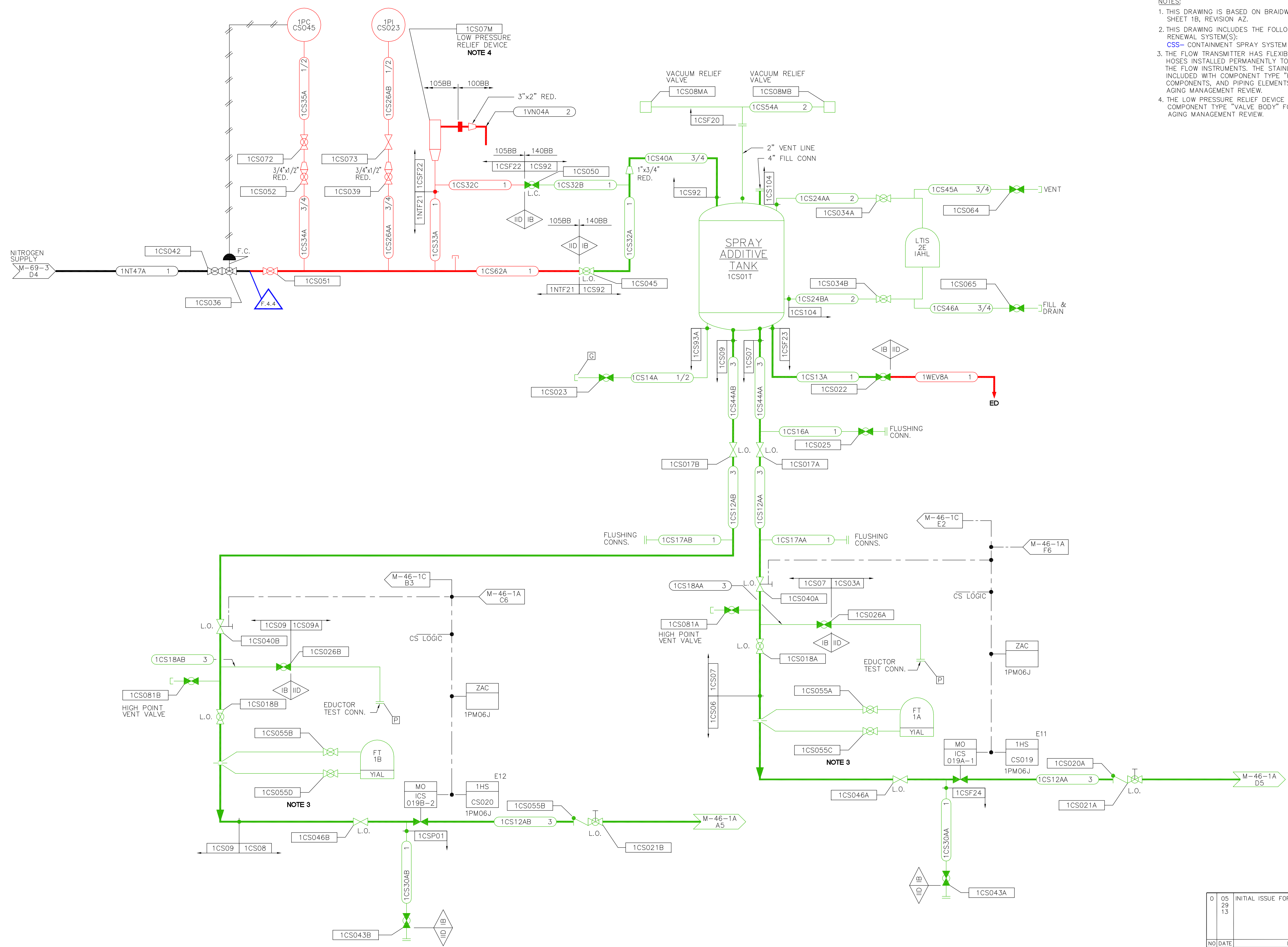
E

D

C

B

A



- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-46, SHEET 1B, REVISION AZ.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CSS- CONTAINMENT SPRAY SYSTEM
  3. THE FLOW TRANSMITTER HAS FLEXIBLE STAINLESS STEEL HOSES INSTALLED PERMANENTLY TO REDUCE VIBRATION TO THE FLOW INSTRUMENTS. THE STAINLESS STEEL HOSES ARE INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE LOW PRESSURE RELIEF DEVICE IS INCLUDED WITH COMPONENT TYPE "VALVE BODY" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

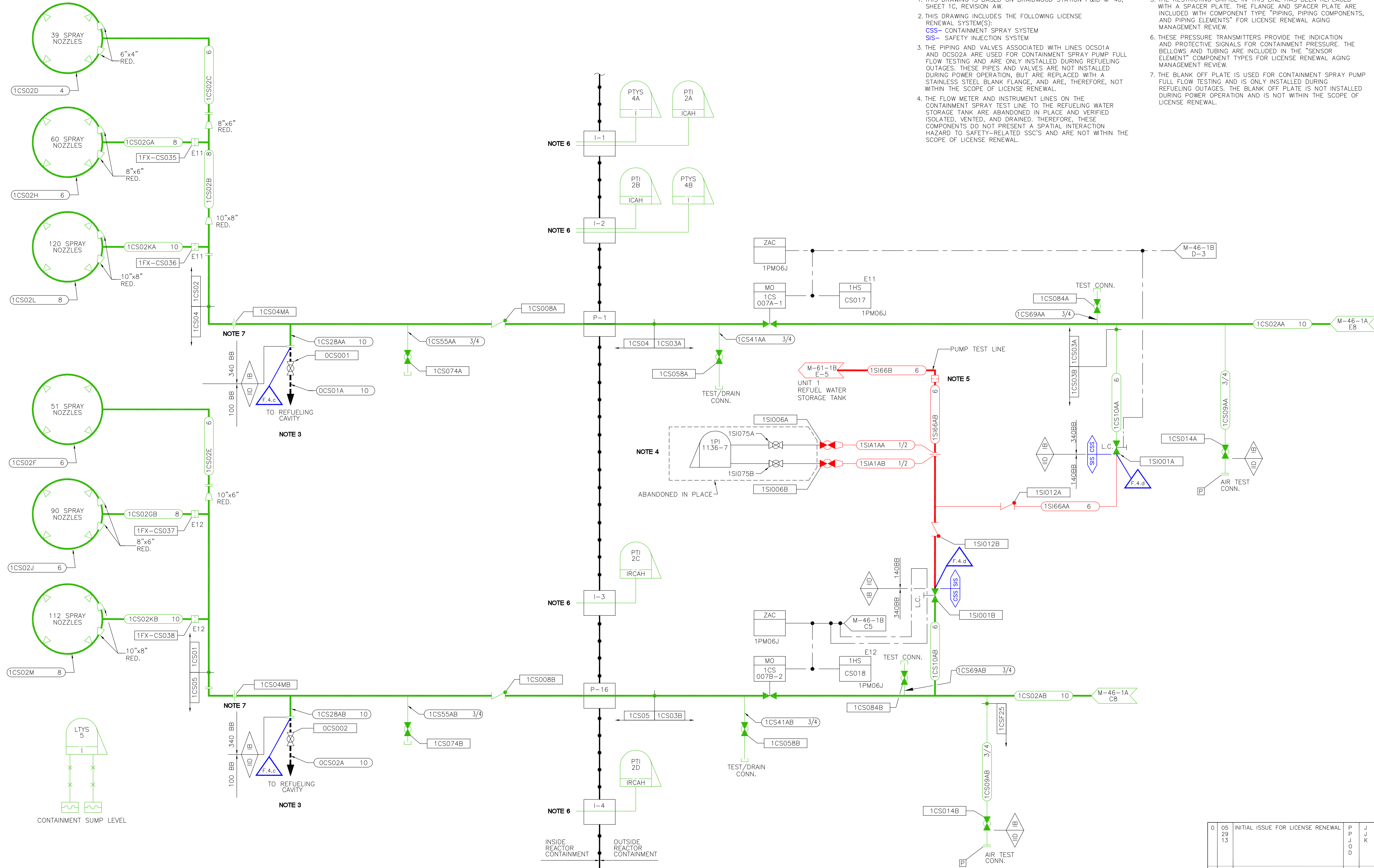
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J G D	J J K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING CONTAINMENT SPRAY UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-46	SHEET 1B	0		



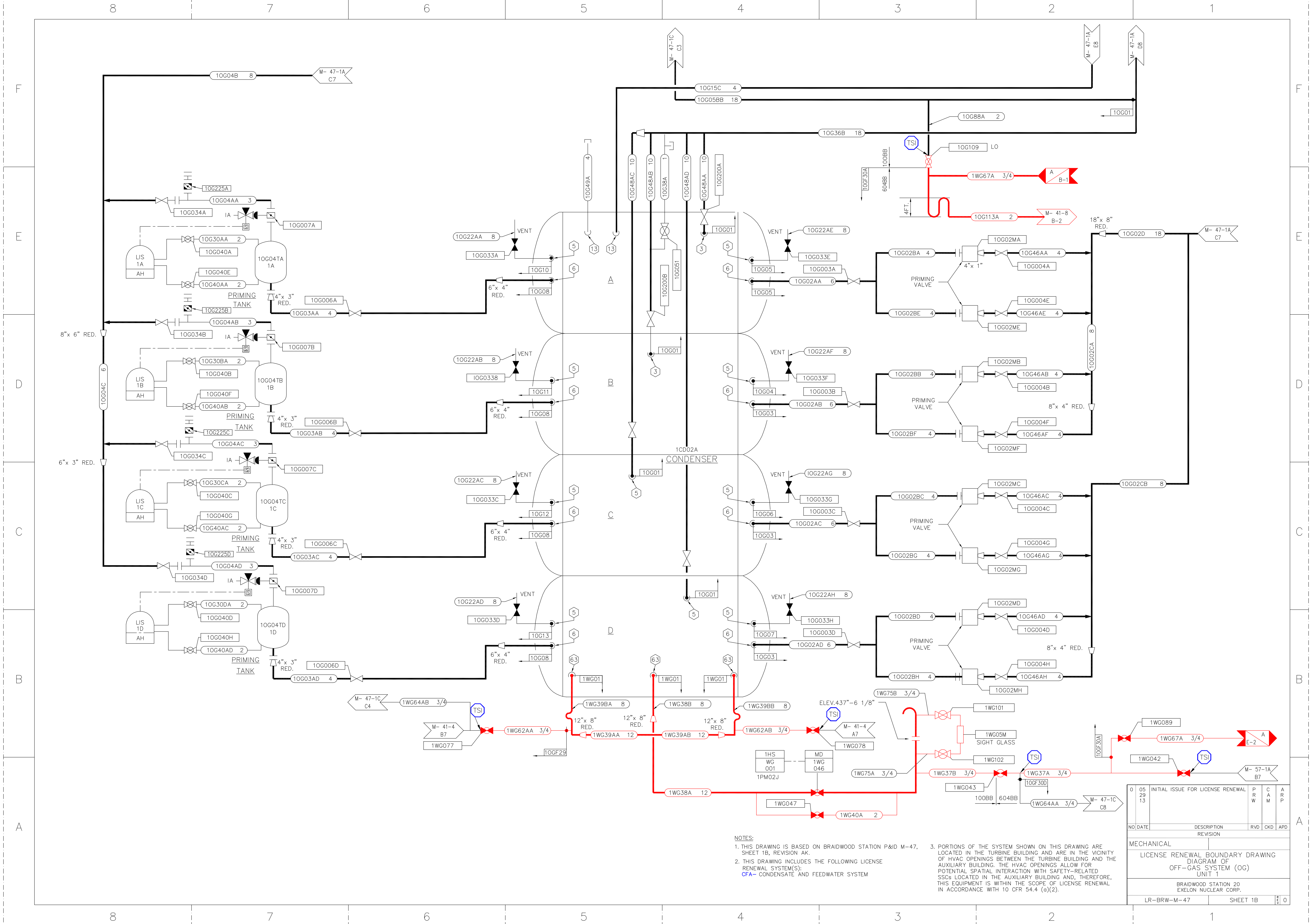
NOTES:

- 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-46, SHEET 1C, REVISION AW.
- 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CSS- CONTAINMENT SPRAY SYSTEM  
 SIS- SAFETY INJECTION SYSTEM
- 3. THE PIPING AND VALVES ASSOCIATED WITH LINES OCS01A AND OCS02A ARE USED FOR CONTAINMENT SPRAY PUMP FULL FLOW TESTING AND ARE ONLY INSTALLED DURING REFUELING OUTAGES. THESE PIPES AND VALVES ARE NOT INSTALLED DURING POWER OPERATION, BUT ARE REPLACED WITH A STAINLESS STEEL BLANK FLANGE, AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
- 4. THE FLOW METER AND INSTRUMENT LINES ON THE CONTAINMENT SPRAY TEST LINE TO THE REFUELING WATER STORAGE TANK ARE ABANDONED IN PLACE AND VERIFIED ISOLATED, VENTED, AND DRAINED. THEREFORE, THESE COMPONENTS DO NOT PRESENT A SPATIAL INTERACTION HAZARD TO SAFETY-RELATED SSC'S AND ARE NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

- 5. THE RESTRICTING ORIFICE IN THIS LINE HAS BEEN REPLACED WITH A SPACER PLATE. THE FLANGE AND SPACER PLATE ARE INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- 6. THESE PRESSURE TRANSMITTERS PROVIDE THE INDICATION AND PROTECTIVE SIGNALS FOR CONTAINMENT PRESSURE. THE BELLOWES AND TUBING ARE INCLUDED IN THE "SENSOR ELEMENT" COMPONENT TYPES FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- 7. THE BLANK OFF PLATE IS USED FOR CONTAINMENT SPRAY PUMP FULL FLOW TESTING AND IS ONLY INSTALLED DURING REFUELING OUTAGES. THE BLANK OFF PLATE IS NOT INSTALLED DURING POWER OPERATION AND IS NOT WITHIN THE SCOPE OF LICENSE RENEWAL.



05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J J K	A R P
NO DATE	DESCRIPTION	RVD	CKD APD
MECHANICAL			
LICENSE RENEWAL BOUNDARY DRAWING CONTAINMENT SPRAY UNIT 1			
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.			
LR-BRW-M-46	SHEET 1C	0	

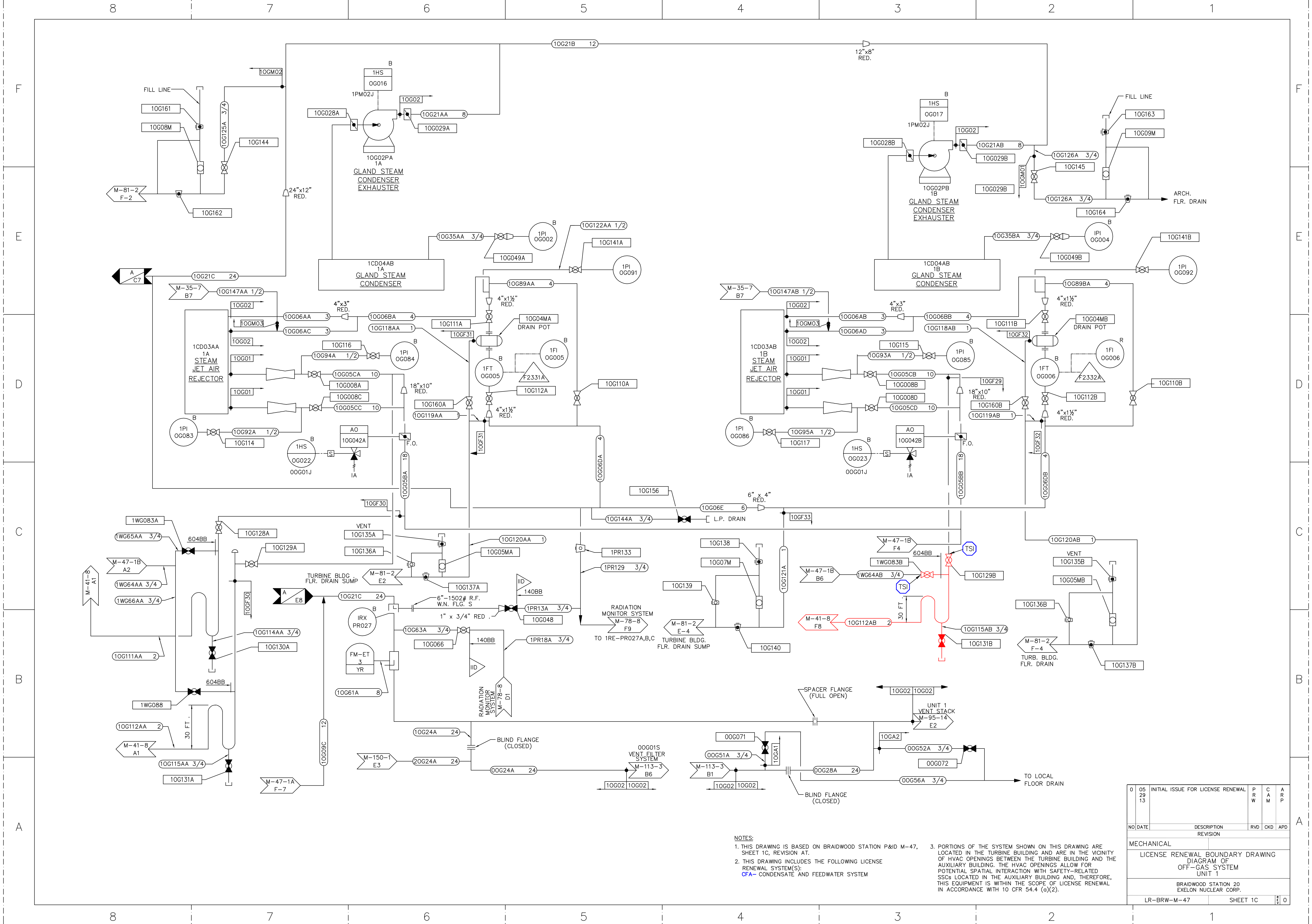


NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-47, SHEET 1B, REVISION AK.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CFA- CONDENSATE AND FEEDWATER SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF				
OFF-GAS SYSTEM (OG)				
UNIT 1				
BRAIDWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-47		SHEET 1B		0





NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-47, SHEET 1C, REVISION AT.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CFA- CONDENSATE AND FEEDWATER SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF OFF-GAS SYSTEM UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-47	SHEET 1C	0		

8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

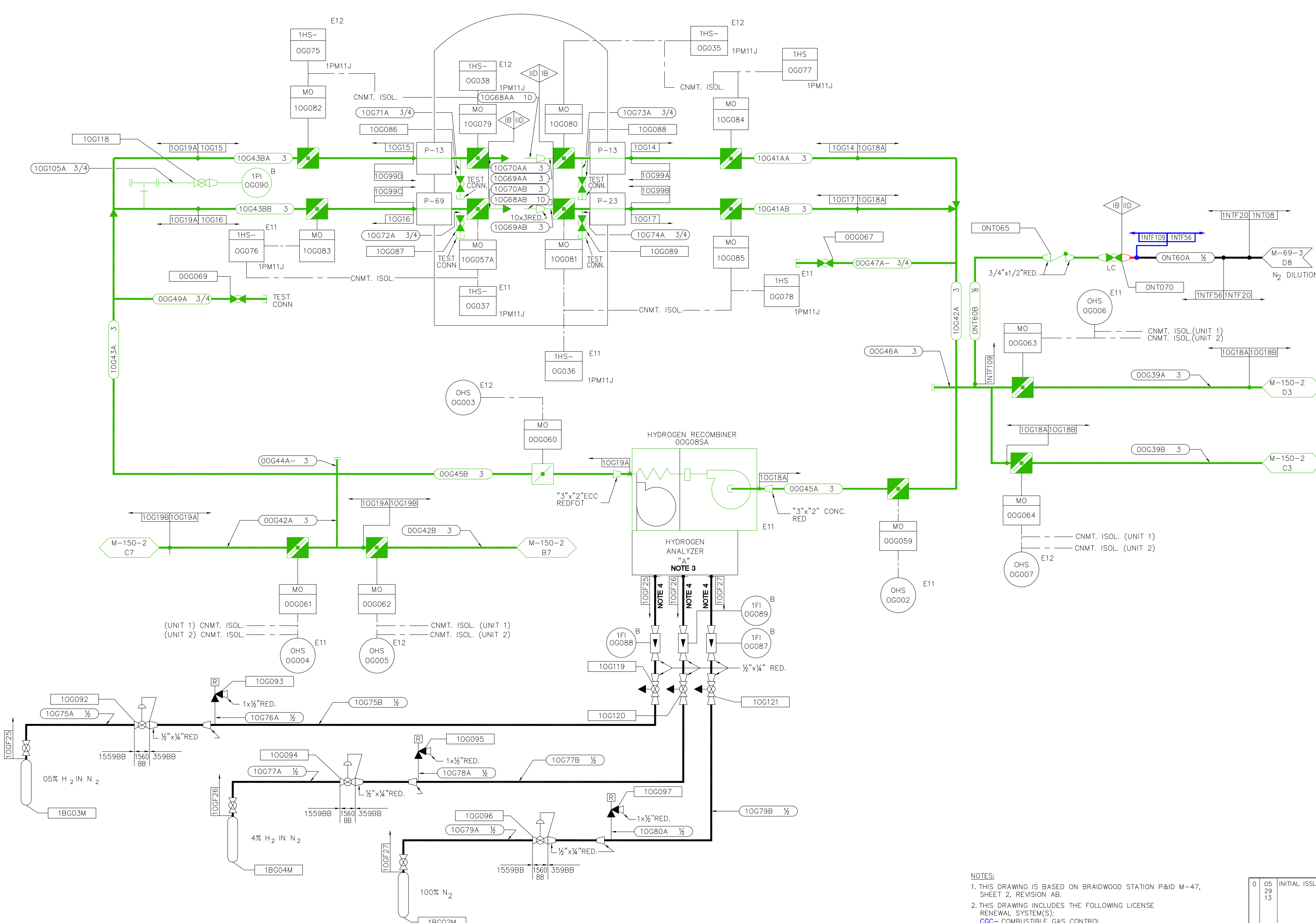
E

D

C

B

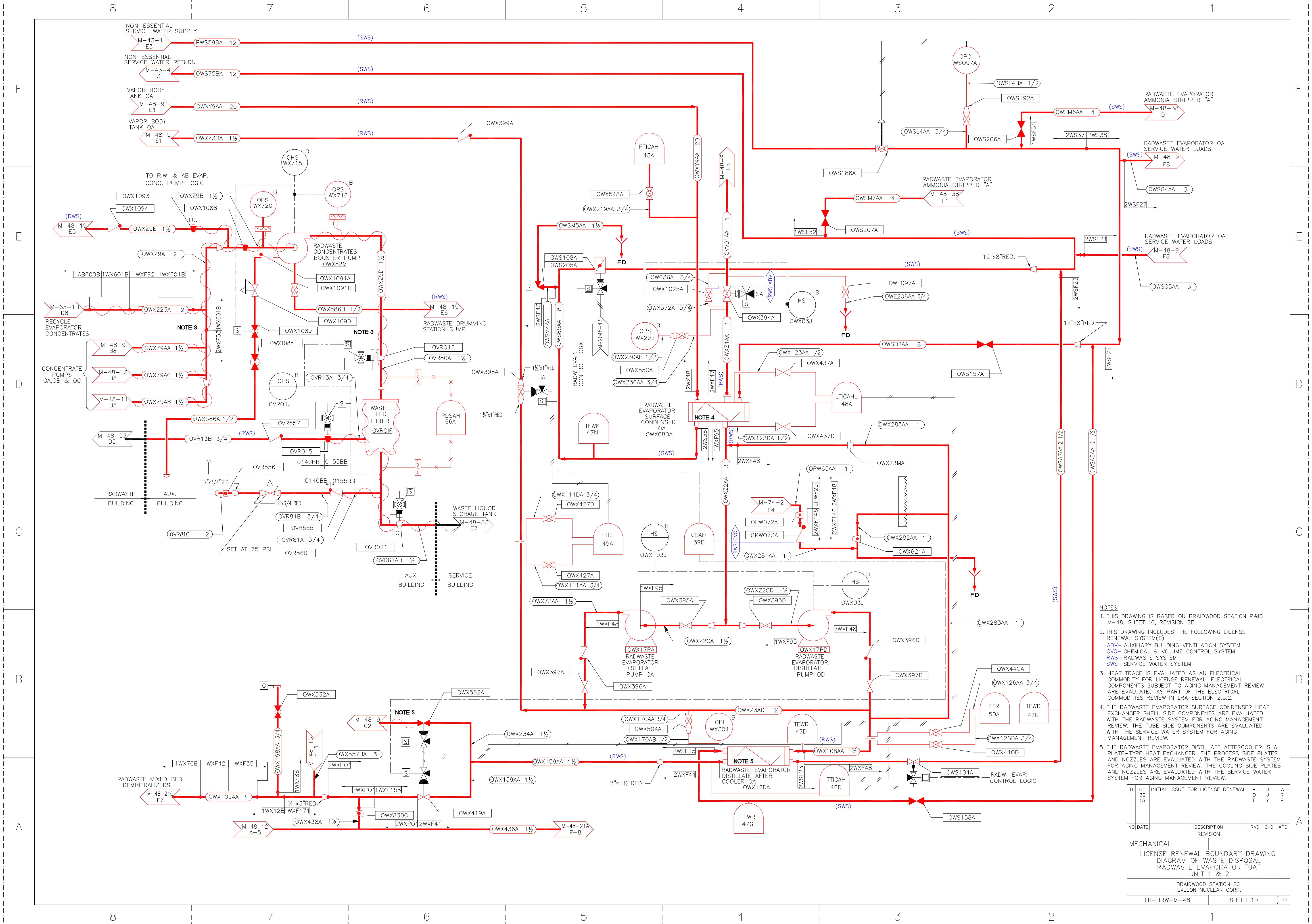
A



- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-47, SHEET 2, REVISION AB.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CGC- COMBUSTIBLE GAS CONTROL.
  - THE HYDROGEN ANALYZER IS NONSAFETY-RELATED.
  - THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED TO PROVIDE STRUCTURAL SUPPORT FOR THE SAFETY-RELATED HYDROGEN RECOMBINER OR SAFETY-RELATED PIPING. THE CREDITED SEISMIC SUPPORTS ARE LOCATED ON THE HYDROGEN RECOMBINER SKID AND SAFETY-RELATED PIPING. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	A	J	C	A	R
	29			F	A	M	P
	13						
NO	DATE	DESCRIPTION	RVD	CKD	APD		
		REVISION					
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF OFFGAS SYSTEM HYDROGEN RECOMBINERS UNITS 1 & 2							
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.							
LR-BRW-M-47			SHEET 2		0		





- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 10, REVISION BE.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RWS- RADWASTE SYSTEM  
 SWS- SERVICE WATER SYSTEM
  3. HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  4. THE RADWASTE EVAPORATOR SURFACE CONDENSER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  5. THE RADWASTE EVAPORATOR DISTILLATE AFTER-COOLER IS A PLATE-TYPE HEAT EXCHANGER. THE PROCESS SIDE PLATES AND NOZZLES ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW. THE COOLING SIDE PLATES AND NOZZLES ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	J	A	R
NO	DATE	DESCRIPTION	RV	CK	AP				
MECHANICAL									
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF WASTE DISPOSAL RADWASTE EVAPORATOR "0A" UNIT 1 & 2									
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.									
LR-BRW-M-48			SHEET 10						







F

F

E

E

D

D

C

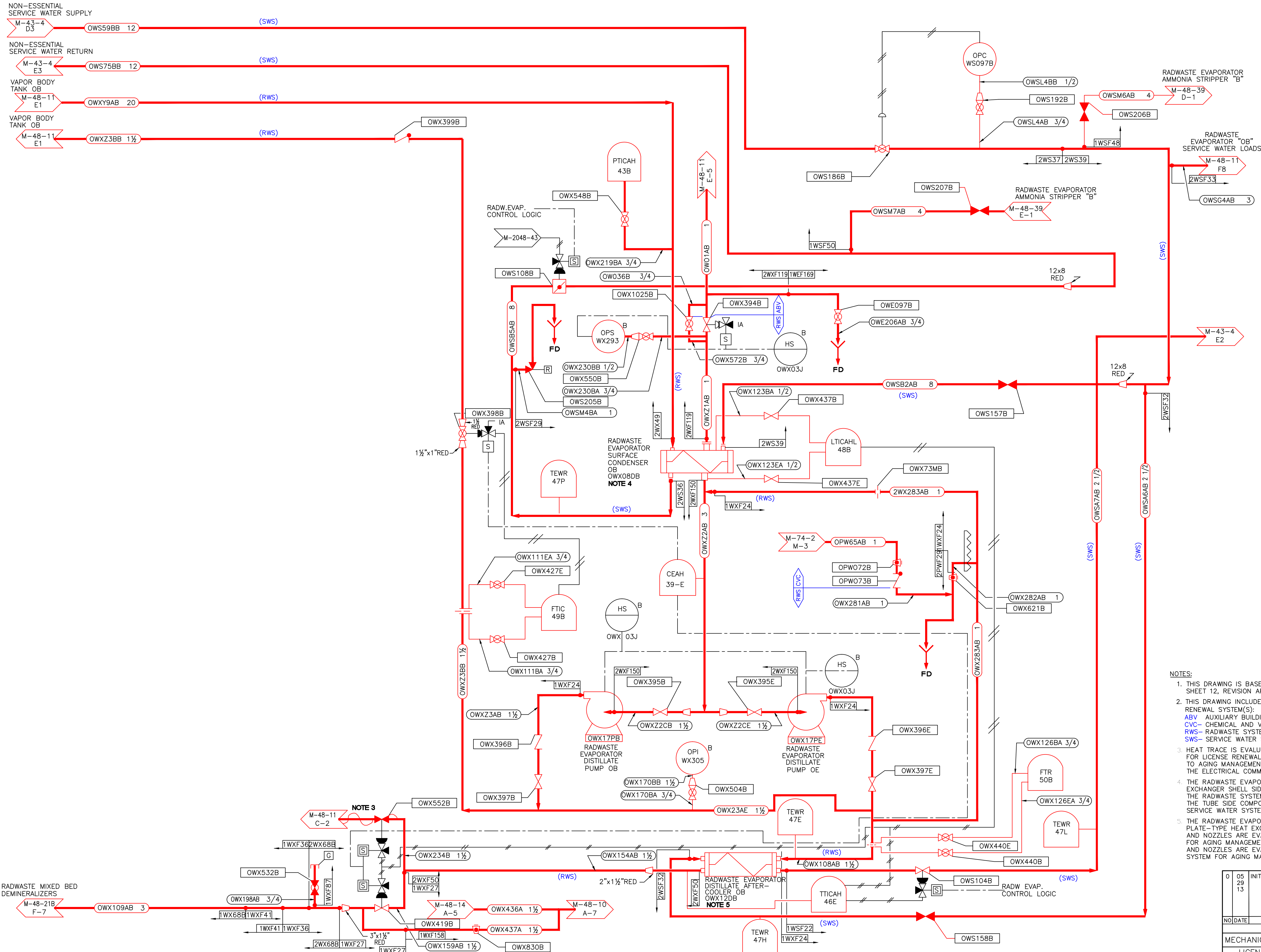
C

B

B

A

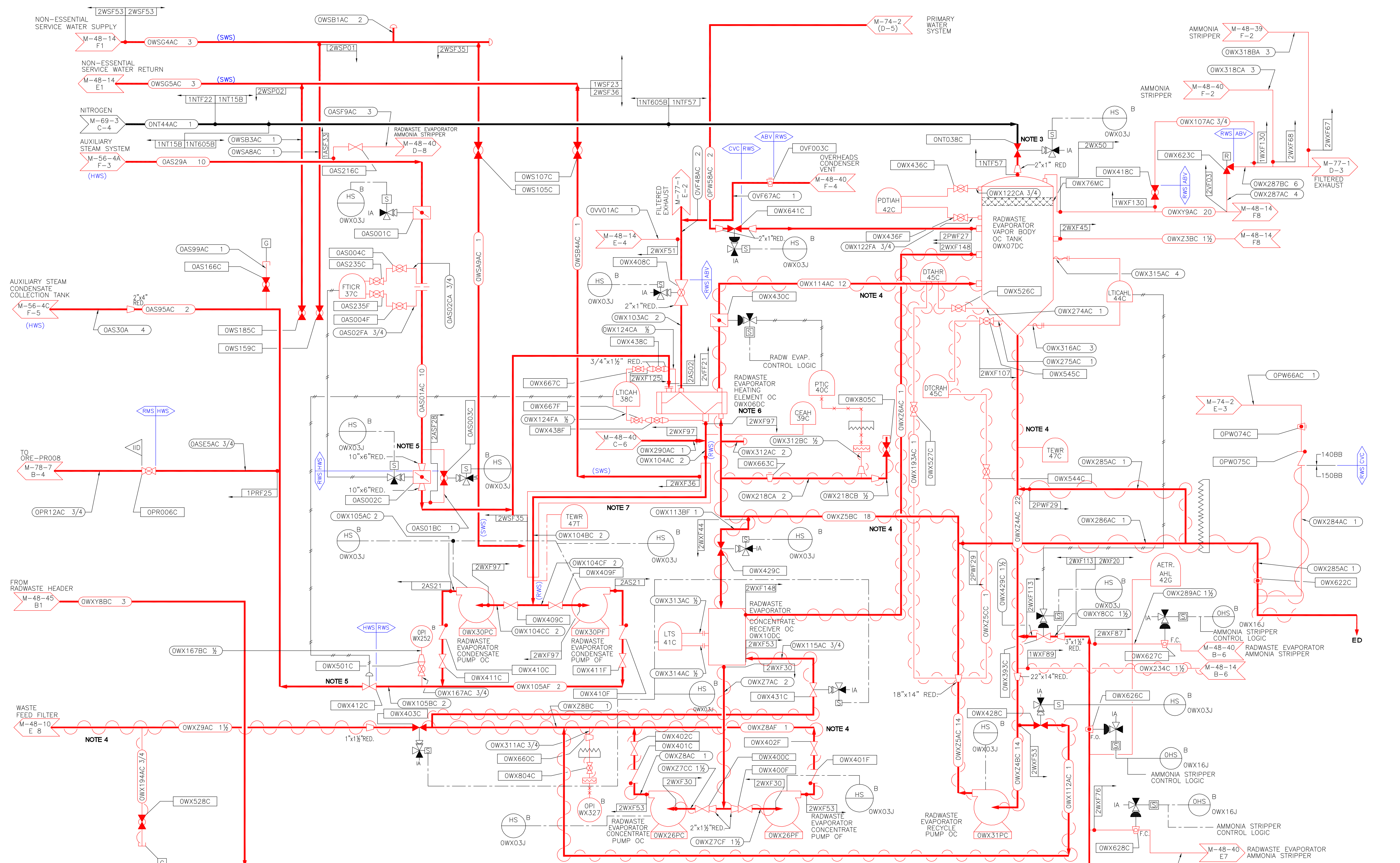
A



- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 12, REVISION AP.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV - AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC - CHEMICAL AND VOLUME CONTROL SYSTEM  
 RWS - RADWASTE SYSTEM  
 SWS - SERVICE WATER SYSTEM
  3. HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  4. THE RADWASTE EVAPORATOR SURFACE CONDENSER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  5. THE RADWASTE EVAPORATOR DISTILLATE AFTERCOOLER IS A PLATE-TYPE HEAT EXCHANGER. THE PROCESS SIDE PLATES AND NOZZLES ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW. THE COOLING SIDE PLATES AND NOZZLES ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
			P	J	J	P
NO DATE		DESCRIPTION	RVD	CKD	APD	
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF WASTE DISPOSAL RADWASTE EVAPORATOR "OB" UNITS 1 & 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-48			SHEET 12		0	



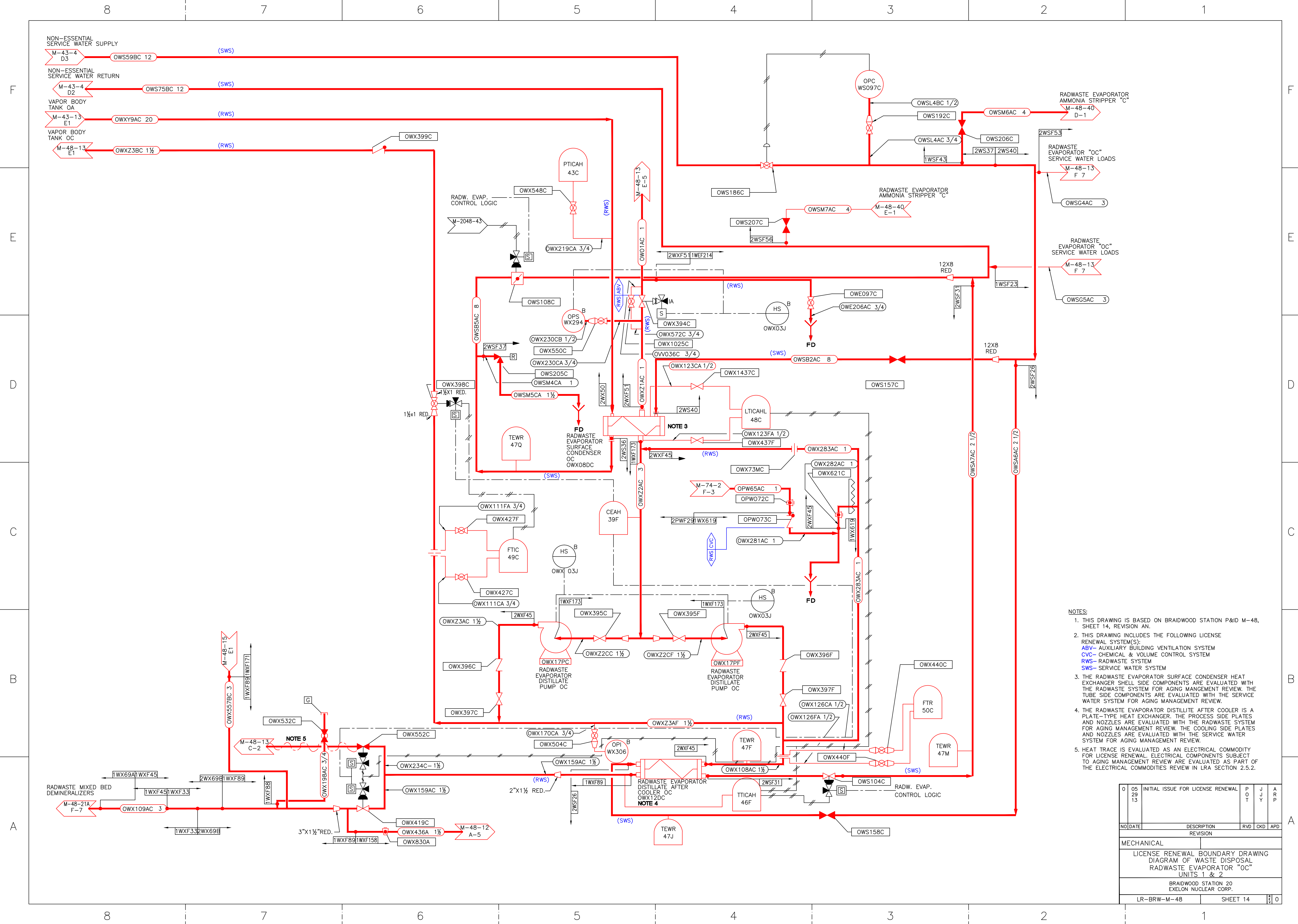


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 13, REVISION BF.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV-AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC-CHEMICAL & VOLUME CONTROL SYSTEM  
 HWS-HEATING WATER AND HEATING STEAM SYSTEM  
 RMS-RADIATION MONITORING SYSTEM  
 RWS-RADWASTE SYSTEM  
 SWS-SERVICE WATER SYSTEM
- PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
- HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
- HEATING WATER AND HEATING SYSTEM HAS BEEN PERMANENTLY ISOLATED FROM THE RADWASTE EVAPORATOR HEATING ELEMENT. THEREFORE FLUID TEMPERATURES ON THE SHELL AND THE TUBE SIDE WILL BE LESS THAN 140 F.
- THE RADWASTE EVAPORATOR HEATING ELEMENT HEAT EXCHANGER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW.
- THIS PIPE-IN-PIPE ARRANGEMENT IS DESIGNED TO COOL CONDENSATE PRIOR TO REACHING THE SUCTION OF THE RADWASTE EVAPORATOR CONDENSATE PUMPS. THE INNER PIPE IS FULLY CONTAINED WITHIN THE OUTER PIPE AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL FOR SPATIAL INTERACTION. THE OUTER PIPE IS EVALUATED WITH THE SERVICE WATER SYSTEM AS COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

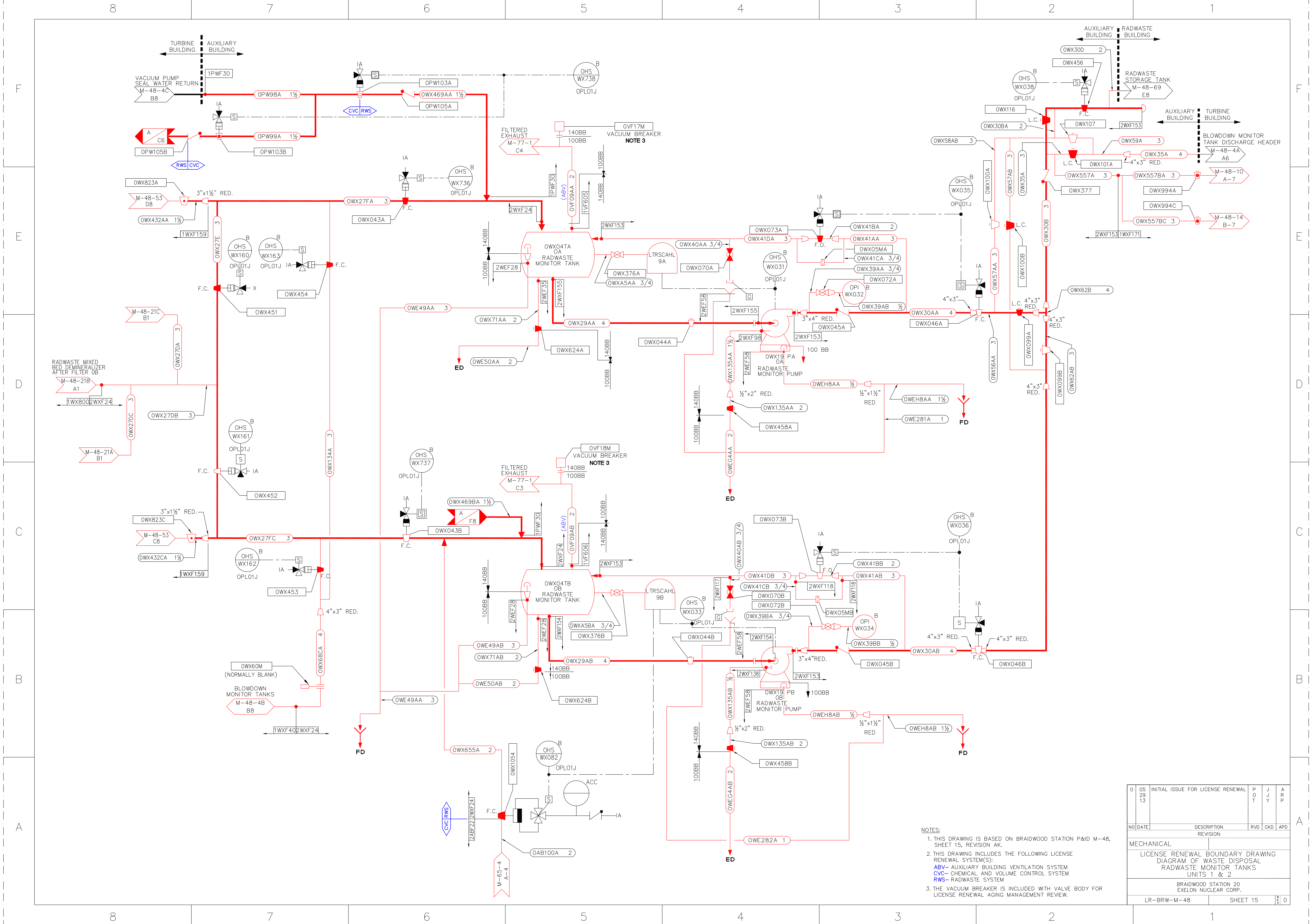
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
		O	J	J	P
NO DATE	DESCRIPTION	RVD	CKD	APD	
	REVISION				
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF WASTE DISPOSAL RADWASTE EVAPORATOR UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-48	SHEET 13				0





- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 14, REVISION AN.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RWS- RADWASTE SYSTEM  
 SWS- SERVICE WATER SYSTEM
  3. THE RADWASTE EVAPORATOR SURFACE CONDENSER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  4. THE RADWASTE EVAPORATOR DISTILLATE AFTER COOLER IS A PLATE-TYPE HEAT EXCHANGER. THE PROCESS SIDE PLATES AND NOZZLES ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW. THE COOLING SIDE PLATES AND NOZZLES ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  5. HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.

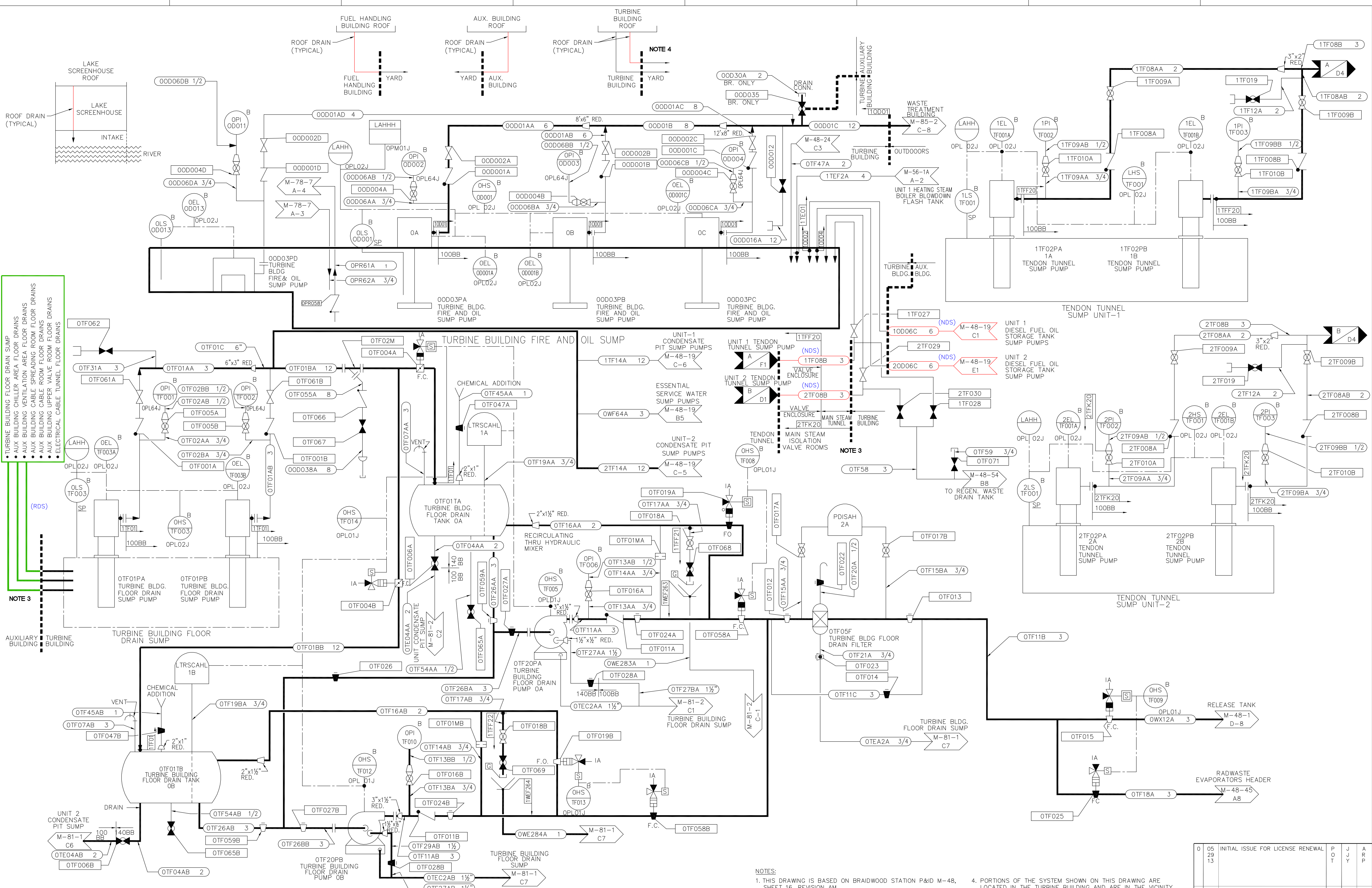
05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29		O	J	R
13		T	J	P
NO DATE		REVISION		
		RVD	CKD	APD
<b>MECHANICAL</b>				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF WASTE DISPOSAL RADWASTE EVAPORATOR "OC" UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-48		SHEET 14		0



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 15, REVISION AK.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL AND VOLUME CONTROL SYSTEM  
 RWS- RADWASTE SYSTEM  
 3. THE VACUUM BREAKER IS INCLUDED WITH VALVE BODY FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05	INITIAL ISSUE FOR LICENSE RENEWAL	POT	J	A
29			J	R
13			J	P
NO DATE DESCRIPTION RVD CKD APD				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING OF WASTE DISPOSAL RADWASTE MONITOR TANKS UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-48	SHEET 15			0





- TURBINE BUILDING FLOOR DRAIN SUMP
- AUX BUILDING CHILLER AREA FLOOR DRAINS
- AUX BUILDING VENTILATION AREA FLOOR DRAINS
- AUX BUILDING CABLE SPREADING ROOM FLOOR DRAINS
- AUX BUILDING CABLE ROOM FLOOR DRAINS
- AUX BUILDING UPPER VALVE ROOM FLOOR DRAINS
- ELECTRICAL CABLE TUNNEL FLOOR DRAINS

NOTE 3

NOTES:

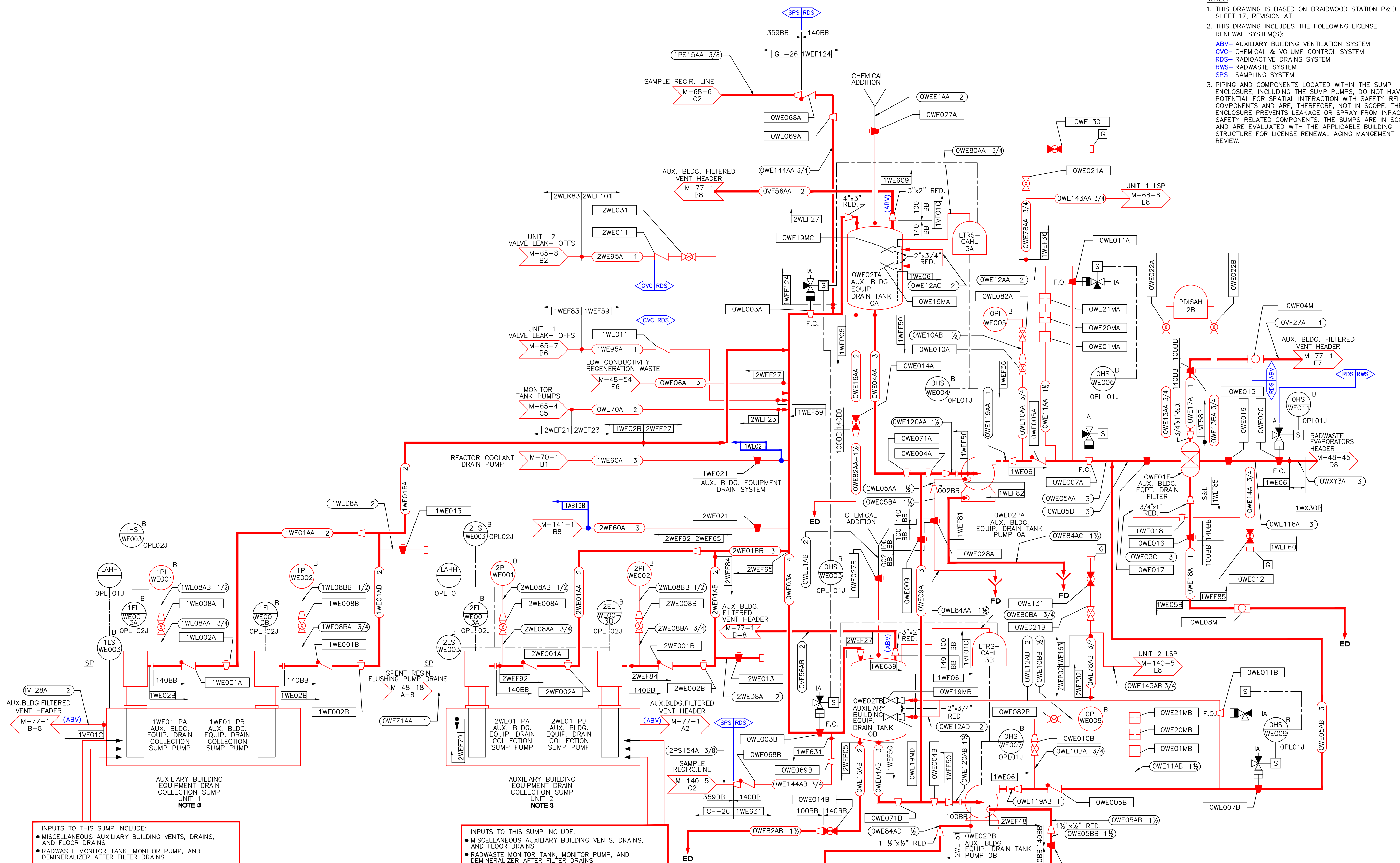
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 16, REVISION AM.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 NDS- NON-RADIOACTIVE DRAIN SYSTEM  
 RDS- RADIOACTIVE DRAINS SYSTEM
3. PORTIONS OF THE RADIOACTIVE DRAINS SYSTEM LOCATED WITHIN THE AUXILIARY BUILDING ARE INCLUDED IN SCOPE BECAUSE THEY ARE UTILIZED TO PRECLUDE FLOODING DUE TO HIGH ENERGY AND MEDIUM ENERGY LINE BREAKS IN ROOMS OF THE AUXILIARY BUILDING THAT CONTAIN SAFETY-RELATED EQUIPMENT.
4. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (g)(2).

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
					O	J		P
NO	DATE			DESCRIPTION	RVD	CKD	APD	
				REVISION				
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF WASTE DISPOSAL								
TURBINE BUILDING FLOOR DRAINS								
UNITS 1 & 2								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-48					SHEET 16		0	



**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 17, REVISION AT.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):
  - ABV- AUXILIARY BUILDING VENTILATION SYSTEM
  - CVC- CHEMICAL & VOLUME CONTROL SYSTEM
  - RDS- RADIOACTIVE DRAINS SYSTEM
  - RWS- RADWASTE SYSTEM
  - SPS- SAMPLING SYSTEM
- PIPING AND COMPONENTS LOCATED WITHIN THE SUMP ENCLOSURE, INCLUDING THE SUMP PUMPS, DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED COMPONENTS AND ARE, THEREFORE, NOT IN SCOPE. THE ENCLOSURE PREVENTS LEAKAGE OR SPRAY FROM IMPACTING SAFETY-RELATED COMPONENTS. THE SUMPS ARE IN SCOPE AND ARE EVALUATED WITH THE APPLICABLE BUILDING STRUCTURE FOR LICENSE RENEWAL AGING MANGEMENT REVIEW.



**NOTE 3**

INPUTS TO THIS SUMP INCLUDE:

- MISCELLANEOUS AUXILIARY BUILDING VENTS, DRAINS, AND FLOOR DRAINS
- RADWASTE MONITOR TANK, MONITOR PUMP, AND DEMINERALIZER AFTER FILTER DRAINS
- CHILLER SURGE TANK AND PUMP DRAINS
- LETDOWN BOOSTER PUMP DRAINS
- BORON THERMAL REGENERATION CHILLER DRAINS
- AUXILIARY BUILDING EQUIPMENT DRAIN TANK DRAINS
- BLOWDOWN CONDENSER, PRE, AND AFTER FILTER DRAINS
- RECYCLE HOLDUP TANK, EVAPORATOR, CONCENTRATE FILTER, AND EVAPORATOR FEED PUMP DRAINS
- VARIOUS SYSTEM BUILDING FLOOR AND EQUIPMENT FILTER DRAINS
- GAS DECAY TANKS DRAIN LINES
- DECONTAMINATION SKID DRAIN LINES
- LAUNDRY WASTE STORAGE TANK, DRAIN TANK, PUMP, AND FILTER DRAINS
- AUXILIARY FEEDWATER, DAY TANK, AND DIESEL-DRIVEN FEED PUMP DRAINS
- VENTILATION CUBICLE COOLER DRAINS
- MIXED BED DEMINERALIZER DRAINS

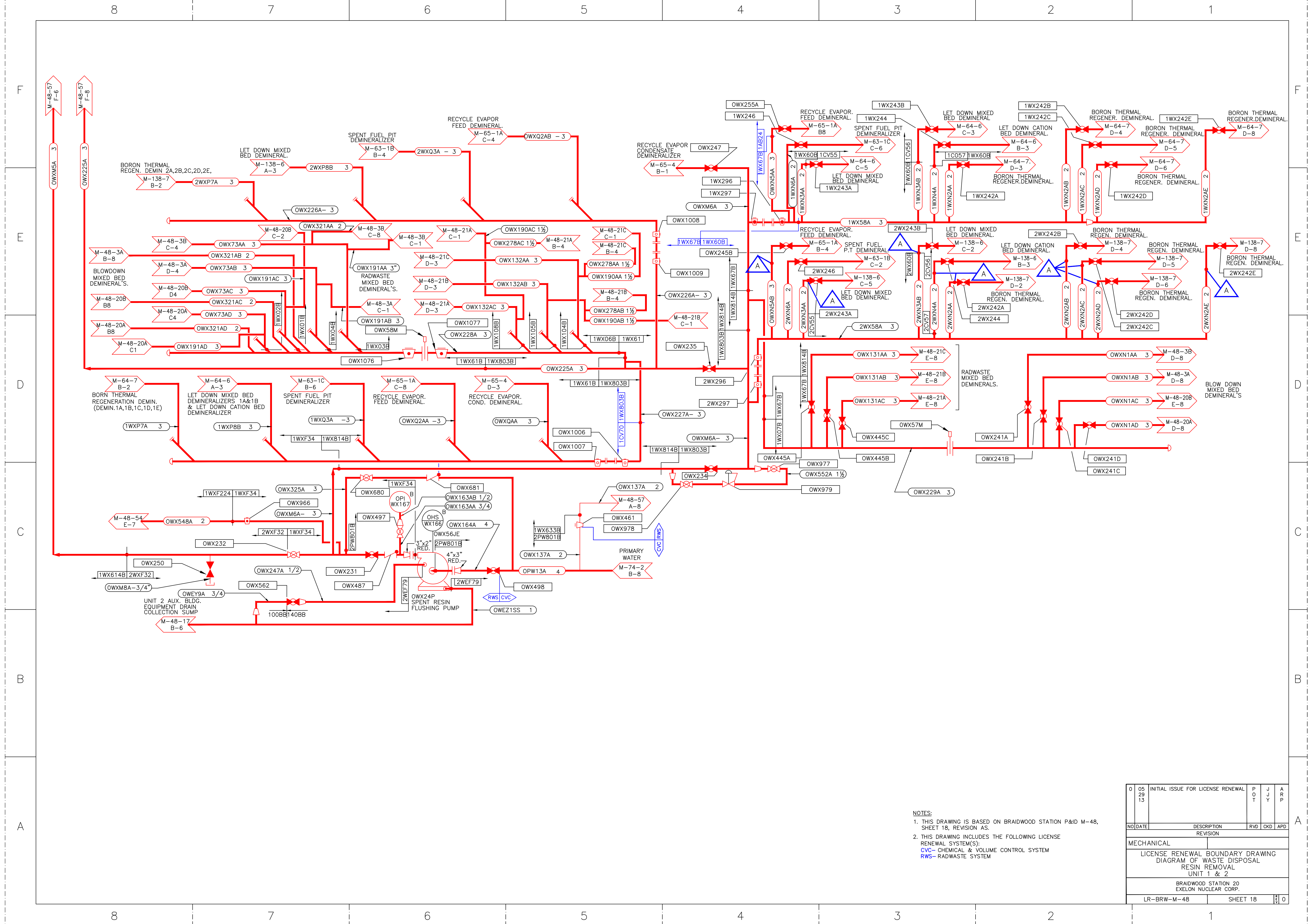
**NOTE 3**

INPUTS TO THIS SUMP INCLUDE:

- MISCELLANEOUS AUXILIARY BUILDING VENTS, DRAINS, AND FLOOR DRAINS
- RADWASTE MONITOR TANK, MONITOR PUMP, AND DEMINERALIZER AFTER FILTER DRAINS
- SPENT RESIN FLUSHING PUMP DRAINS
- RECYCLE EVAPORATOR PACKAGE DRAINS
- 300 GALLON HOTWELL TANK DRAINS
- GAS DECAY TANKS DRAIN LINES
- DECONTAMINATION SKID DRAIN LINES
- SPENT FUEL PIT DEMINERALIZER DRAINS
- MIXED BED DEMINERALIZER DRAINS
- CHILLER SURGE TANK AND PUMP DRAINS
- LETDOWN BOOSTER PUMP DRAINS
- RECYCLE MONITOR TANK AND PUMP DRAINS
- BORON THERMAL REGENERATION CHILLER, DEMINERALIZER, AND EVAPORATOR DRAINS
- AUXILIARY BUILDING EQUIPMENT DRAIN TANK DRAINS
- BLOWDOWN CONDENSER, PRE, AND AFTER FILTER DRAINS
- RECYCLE HOLDUP TANK, EVAPORATOR, CONCENTRATE FILTER, AND EVAPORATOR FEED PUMP DRAINS

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	O	C	A	R
13	29		T	T	M		P
NO DATE		DESCRIPTION	RVD	CKD	APD		
		REVISION					
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING							
DIAGRAM OF WASTE DISPOSAL							
AUXILIARY BUILDING EQUIPMENT DRAINS							
UNITS 1 & 2							
BRAIDWOOD STATION 20							
EXELON NUCLEAR CORP.							
LR-BRW-M-48		SHEET 17		0			

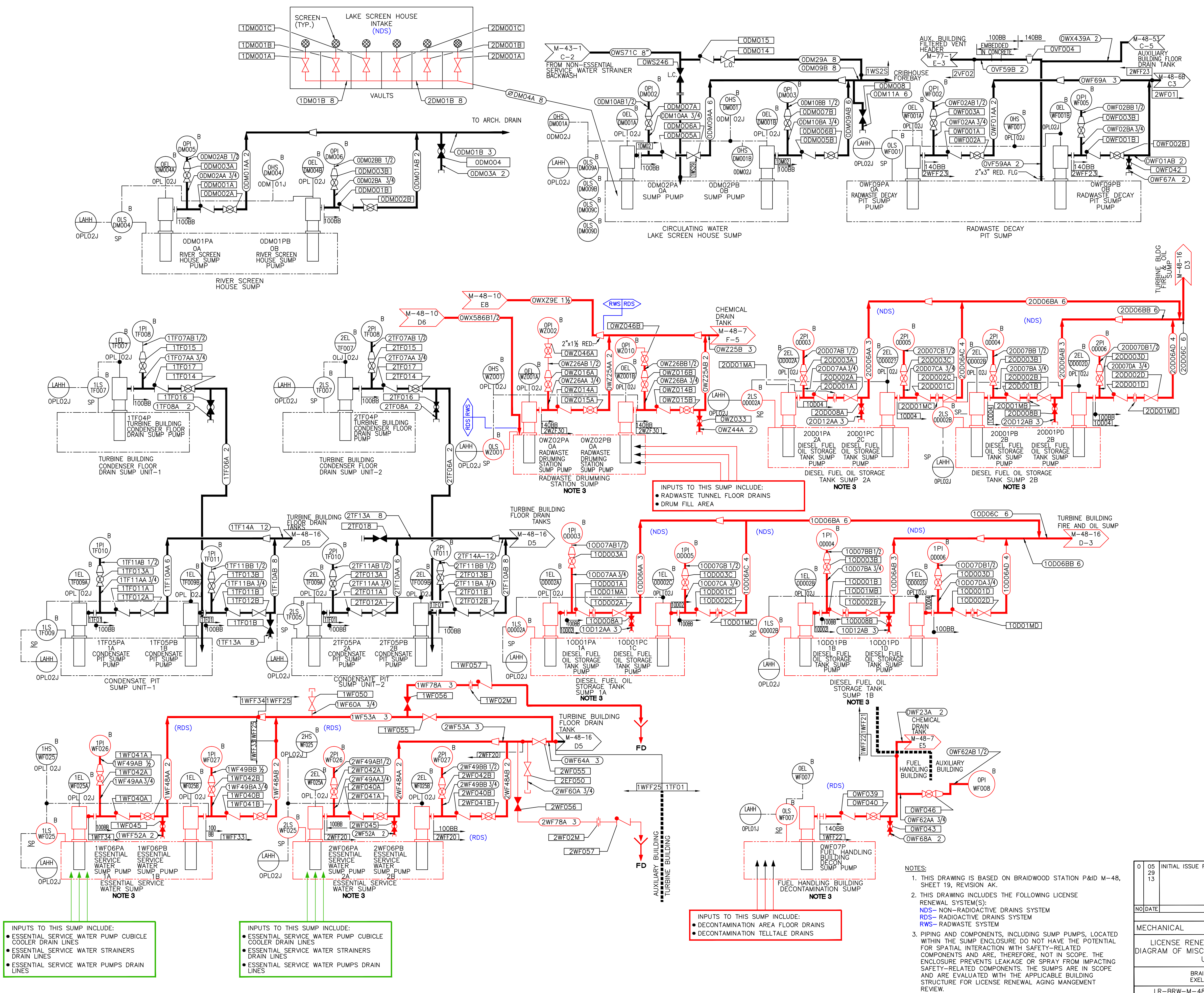




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 18, REVISION AS.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RWS- RADWASTE SYSTEM

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	POT	J	A	R
NO DATE	DESCRIPTION	RVD	CKD	APD	
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF WASTE DISPOSAL RESIN REMOVAL UNIT 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-48	SHEET 18				0





INPUTS TO THIS SUMP INCLUDE:

- ESSENTIAL SERVICE WATER PUMP CUBICLE COOLER DRAIN LINES
- ESSENTIAL SERVICE WATER STRAINERS DRAIN LINES
- ESSENTIAL SERVICE WATER PUMPS DRAIN LINES

INPUTS TO THIS SUMP INCLUDE:

- ESSENTIAL SERVICE WATER PUMP CUBICLE COOLER DRAIN LINES
- ESSENTIAL SERVICE WATER STRAINERS DRAIN LINES
- ESSENTIAL SERVICE WATER PUMPS DRAIN LINES

INPUTS TO THIS SUMP INCLUDE:

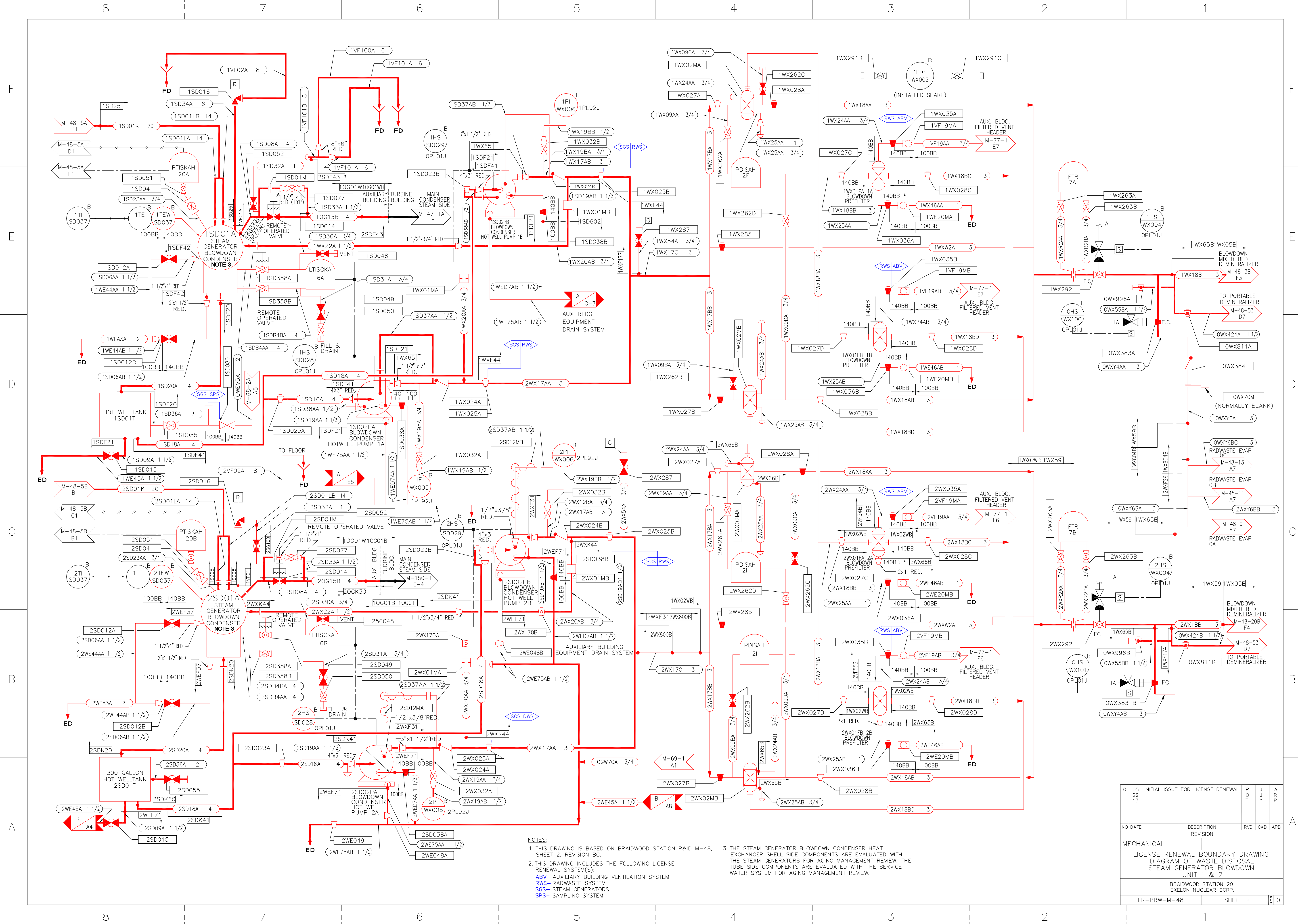
- DECONTAMINATION AREA FLOOR DRAINS
- DECONTAMINATION TELLTALE DRAINS

NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 19, REVISION AK.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 NDS- NON-RADIOACTIVE DRAINS SYSTEM  
 RDS- RADIOACTIVE DRAINS SYSTEM  
 RWS- RADWASTE SYSTEM
- PIPING AND COMPONENTS, INCLUDING SUMP PUMPS, LOCATED WITHIN THE SUMP ENCLOSURE DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED COMPONENTS AND ARE, THEREFORE, NOT IN SCOPE. THE ENCLOSURE PREVENTS LEAKAGE OR SPRAY FROM IMPACTING SAFETY-RELATED COMPONENTS. THE SUMPS ARE IN SCOPE AND ARE EVALUATED WITH THE APPLICABLE BUILDING STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	POT	J	A
1	29			J	R
13					P
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF MISCELLANEOUS SUMPS & PUMPS					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-48		SHEET 19	0		



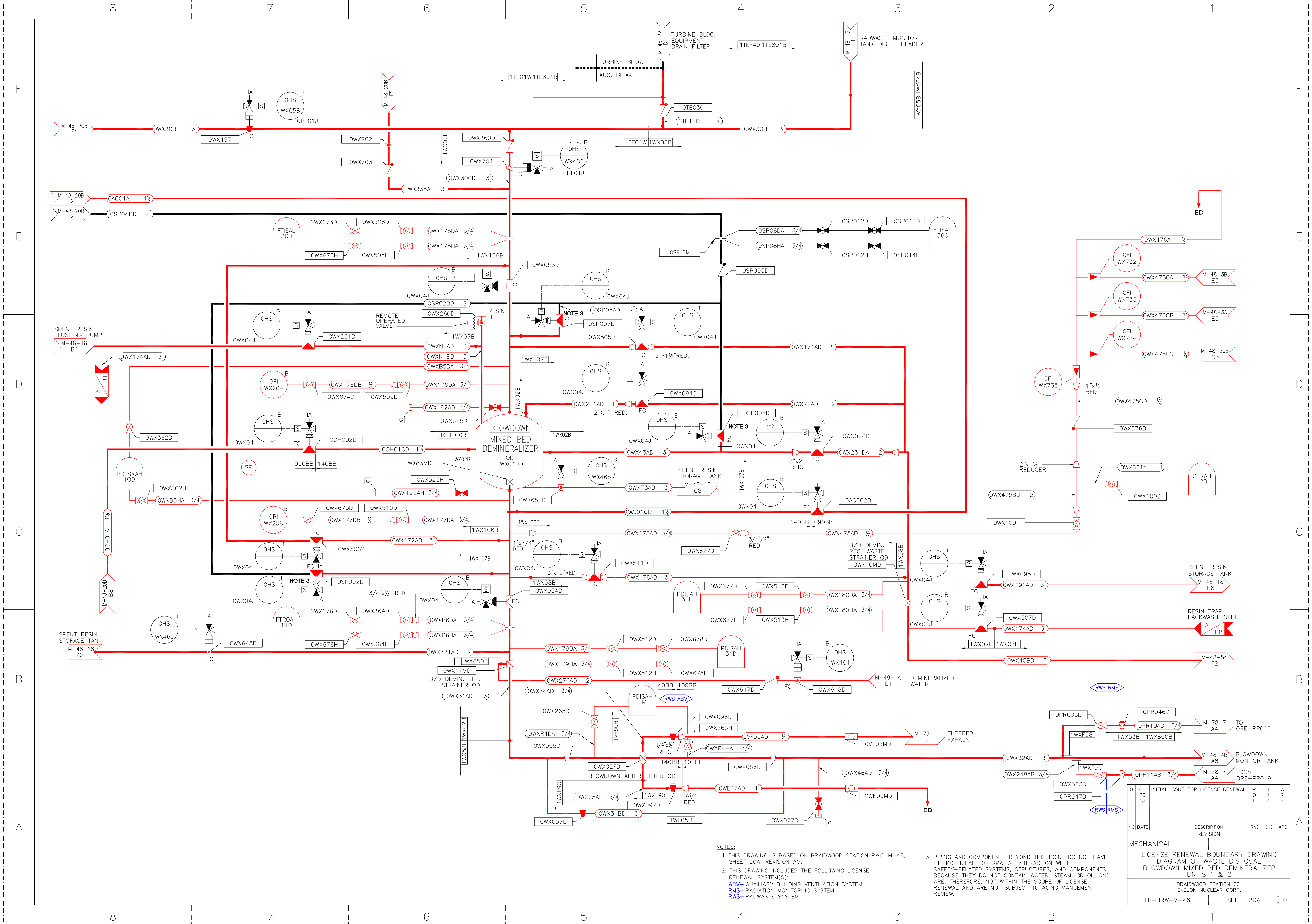


**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 2, REVISION BC.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RWS- RADWASTE SYSTEM  
 SCS- STEAM GENERATORS  
 SPS- SAMPLING SYSTEM
3. THE STEAM GENERATOR BLOWDOWN CONDENSER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE STEAM GENERATORS FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
					O	J		P
					T	Y		
NO	DATE			DESCRIPTION	RVD	CKD	APD	
				REVISION				
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF WASTE DISPOSAL								
STEAM GENERATOR BLOWDOWN								
UNIT 1 & 2								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-48 SHEET 2 0								



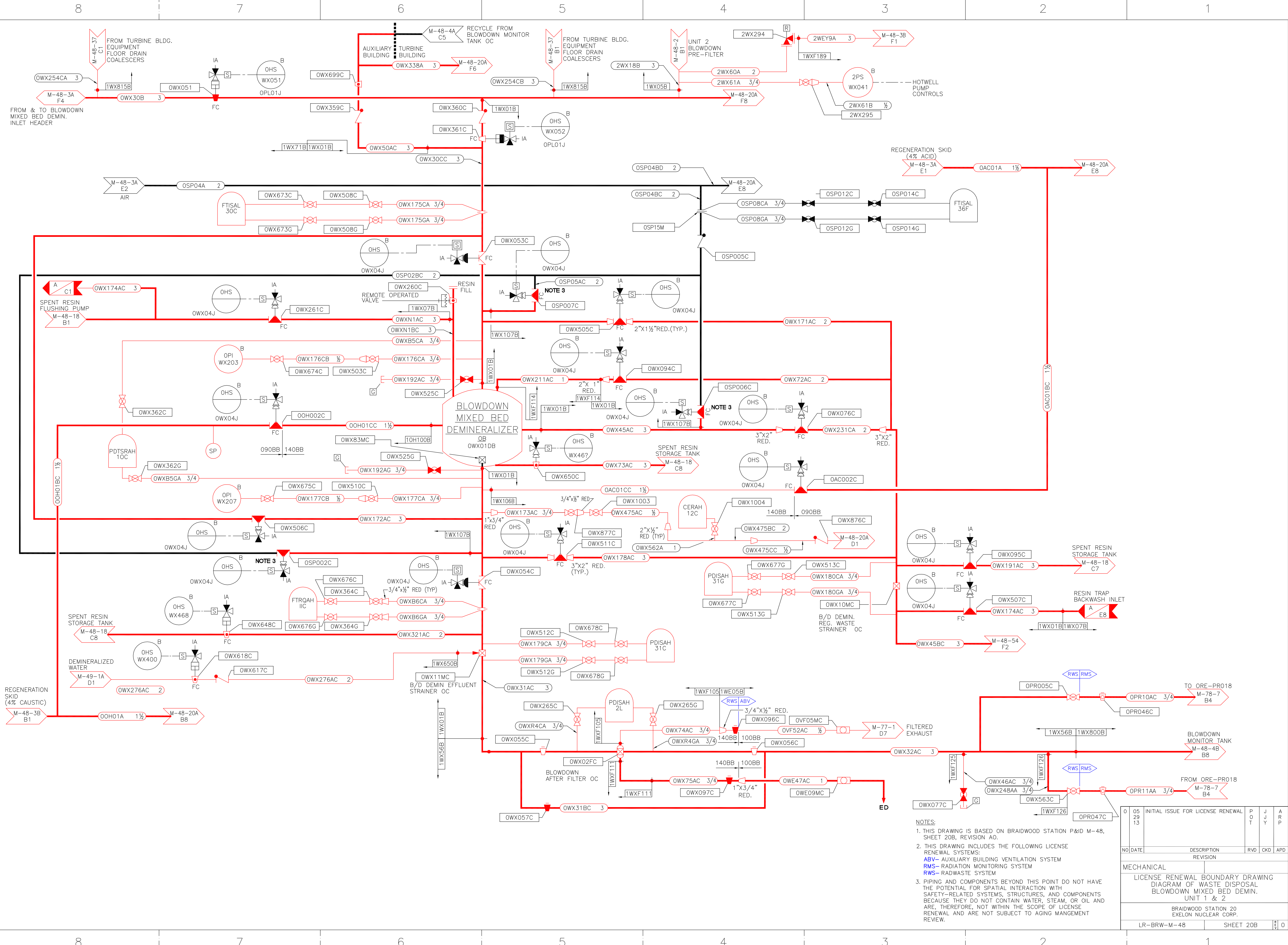


NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 20A, REVISION AM.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RMS- RADIATION MONITORING SYSTEM  
 RWS- RADWASTE SYSTEM
- PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANGEMENT REVIEW.

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	
29		O	J	R	
13		T	J	P	
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF WASTE DISPOSAL					
BLOWDOWN MIXED BED DEMINERALIZER					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-48		SHEET 20A			0

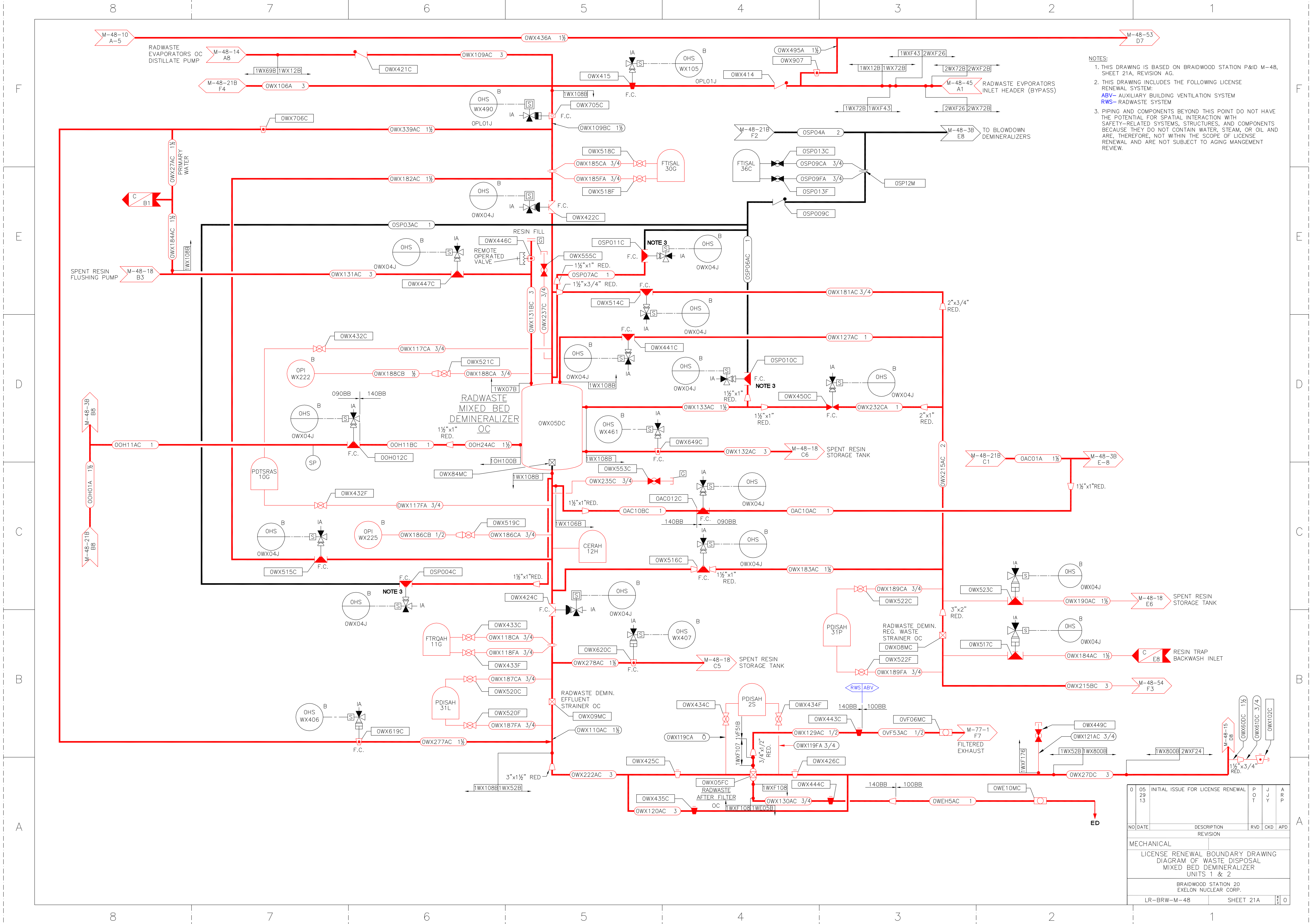




**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 20B, REVISION A0.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RMS- RADIATION MONITORING SYSTEM  
 RWS- RADWASTE SYSTEM
- PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.

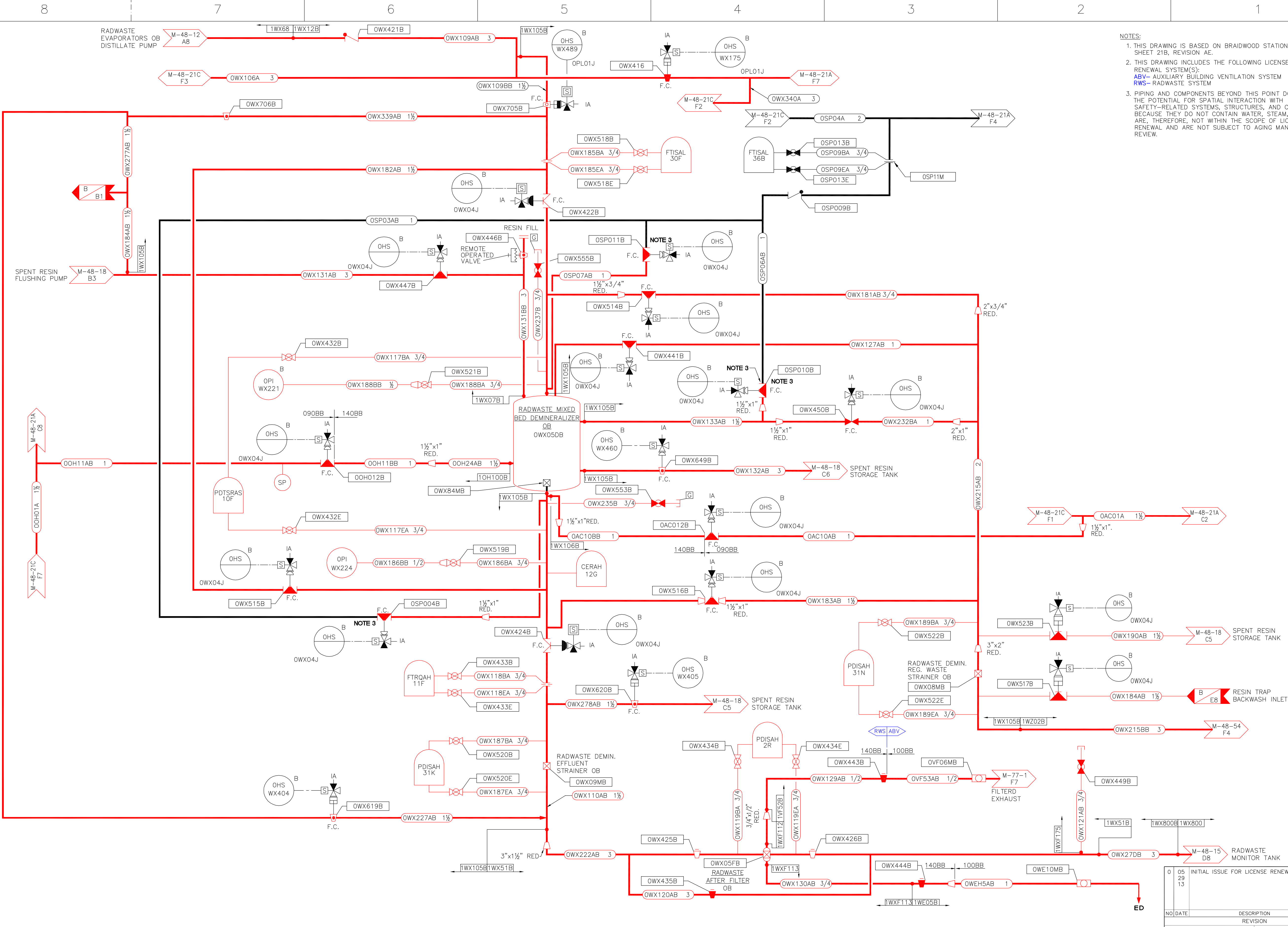
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		O	J	R
					P
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF WASTE DISPOSAL					
BLOWDOWN MIXED BED DEMIN.					
UNIT 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-48 SHEET 20B 0					



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 21A, REVISION AG.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM:  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RWS- RADWASTE SYSTEM  
 3. PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	POT	J	A	R
29	13			U	L	P
NO DATE		DESCRIPTION	RVD	CKD	APD	
		REVISION				
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF WASTE DISPOSAL						
MIXED BED DEMINERALIZER						
UNITS 1 & 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-48		SHEET 21A		0		



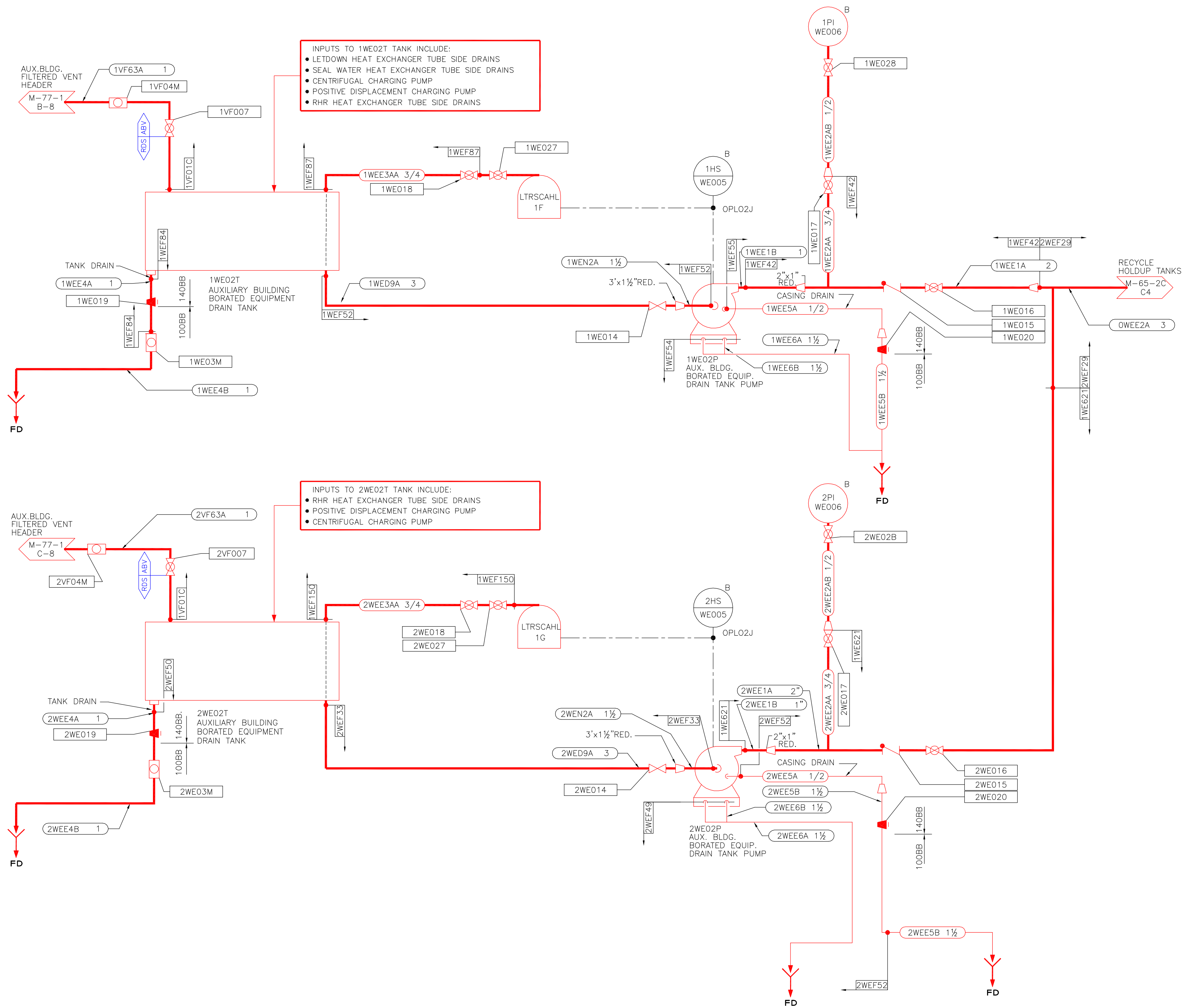


- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 21B, REVISION AE.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV-AUXILIARY BUILDING VENTILATION SYSTEM  
 RWS-RADWASTE SYSTEM
  3. PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANGEMENT REVIEW.

05	29	13						
NO	DATE	DESCRIPTION	RVD	CKD	APD	POT	JY	ARP
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF WASTE DISPOSAL RADWASTE MIXED BED DEMINERALIZER UNITS 1 & 2								
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.								
LR-BRW-M-48			SHEET 21B			0		





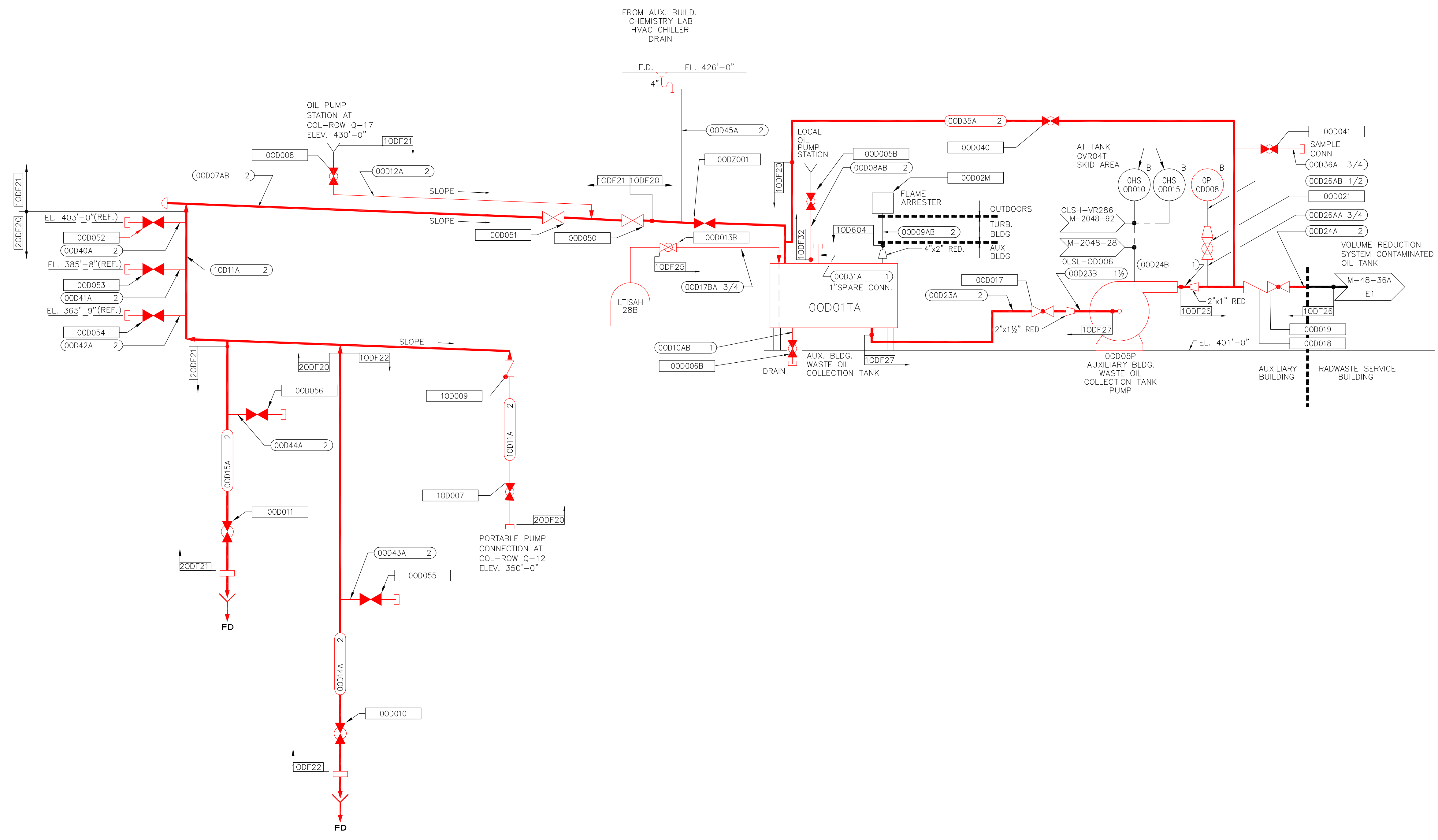


INPUTS TO 1WEO2T TANK INCLUDE:  
 • LETDOWN HEAT EXCHANGER TUBE SIDE DRAINS  
 • SEAL WATER HEAT EXCHANGER TUBE SIDE DRAINS  
 • CENTRIFUGAL CHARGING PUMP  
 • POSITIVE DISPLACEMENT CHARGING PUMP  
 • RHR HEAT EXCHANGER TUBE SIDE DRAINS

INPUTS TO 2WEO2T TANK INCLUDE:  
 • RHR HEAT EXCHANGER TUBE SIDE DRAINS  
 • POSITIVE DISPLACEMENT CHARGING PUMP  
 • CENTRIFUGAL CHARGING PUMP

NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-4B, SHEET 23, REVISION S.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RDS- RADIOACTIVE DRAINS SYSTEM

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	POT	J	A
			J	R
			J	P
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF RADIOACTIVE WASTE				
REPROCESSING AND DISPOSAL				
UNITS 1 & 2				
BRAIDWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-4B	SHEET 23			0



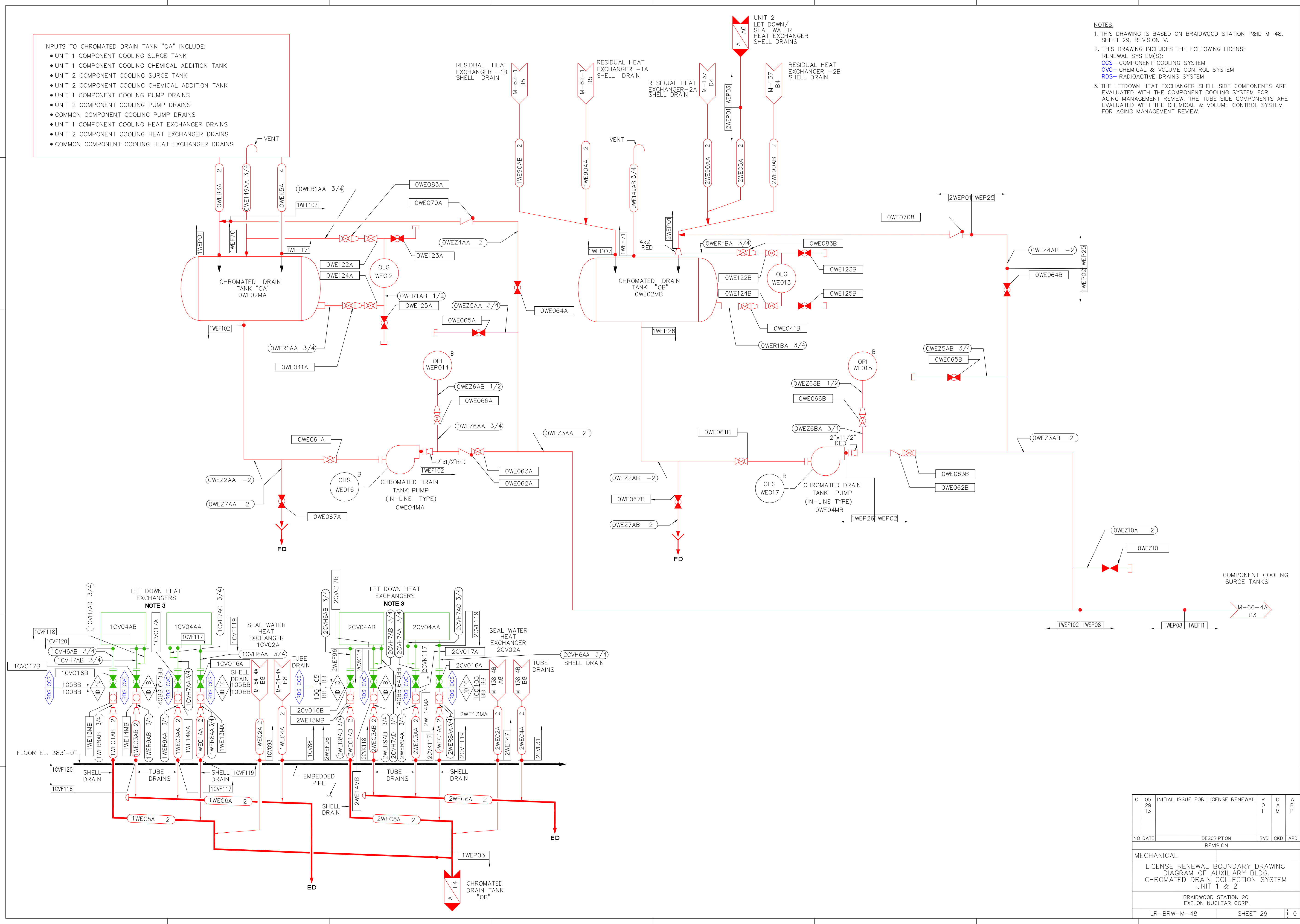
NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 25, REVISION AA.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 NDS- NON-RADIOACTIVE DRAIN SYSTEM

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	
29		O	J	R	
13		T	Y	P	
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF AUXILIARY BUILDING					
WASTE OIL COLLECTION SYSTEM					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-48		SHEET 25			0

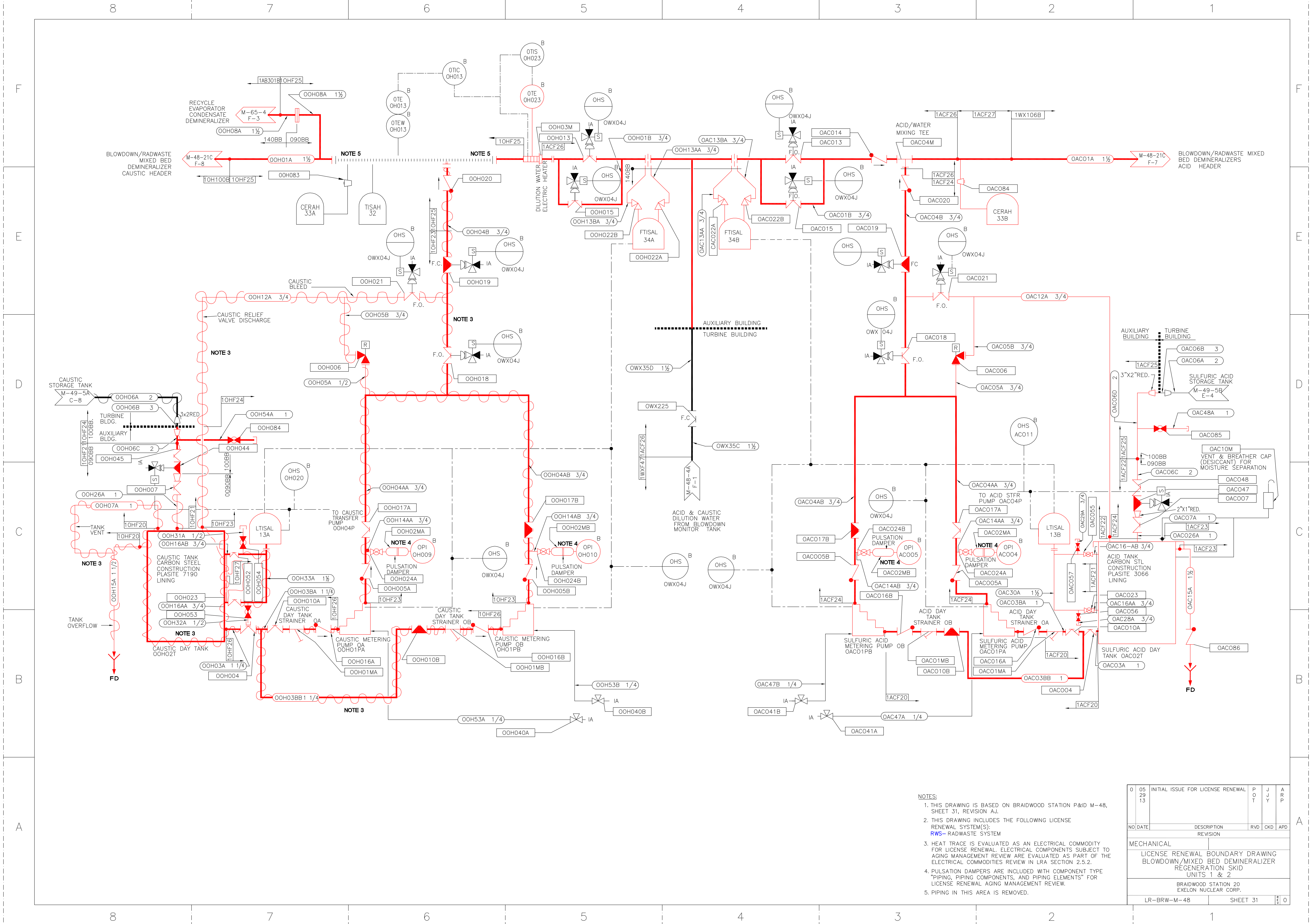


- INPUTS TO CHROMATED DRAIN TANK "OA" INCLUDE:
- UNIT 1 COMPONENT COOLING SURGE TANK
  - UNIT 1 COMPONENT COOLING CHEMICAL ADDITION TANK
  - UNIT 2 COMPONENT COOLING SURGE TANK
  - UNIT 2 COMPONENT COOLING CHEMICAL ADDITION TANK
  - UNIT 1 COMPONENT COOLING PUMP DRAINS
  - UNIT 2 COMPONENT COOLING PUMP DRAINS
  - COMMON COMPONENT COOLING PUMP DRAINS
  - UNIT 1 COMPONENT COOLING HEAT EXCHANGER DRAINS
  - UNIT 2 COMPONENT COOLING HEAT EXCHANGER DRAINS
  - COMMON COMPONENT COOLING HEAT EXCHANGER DRAINS

NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 29, REVISION V.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS- COMPONENT COOLING SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RDS- RADIOACTIVE DRAINS SYSTEM  
 3. THE LETDOWN HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.



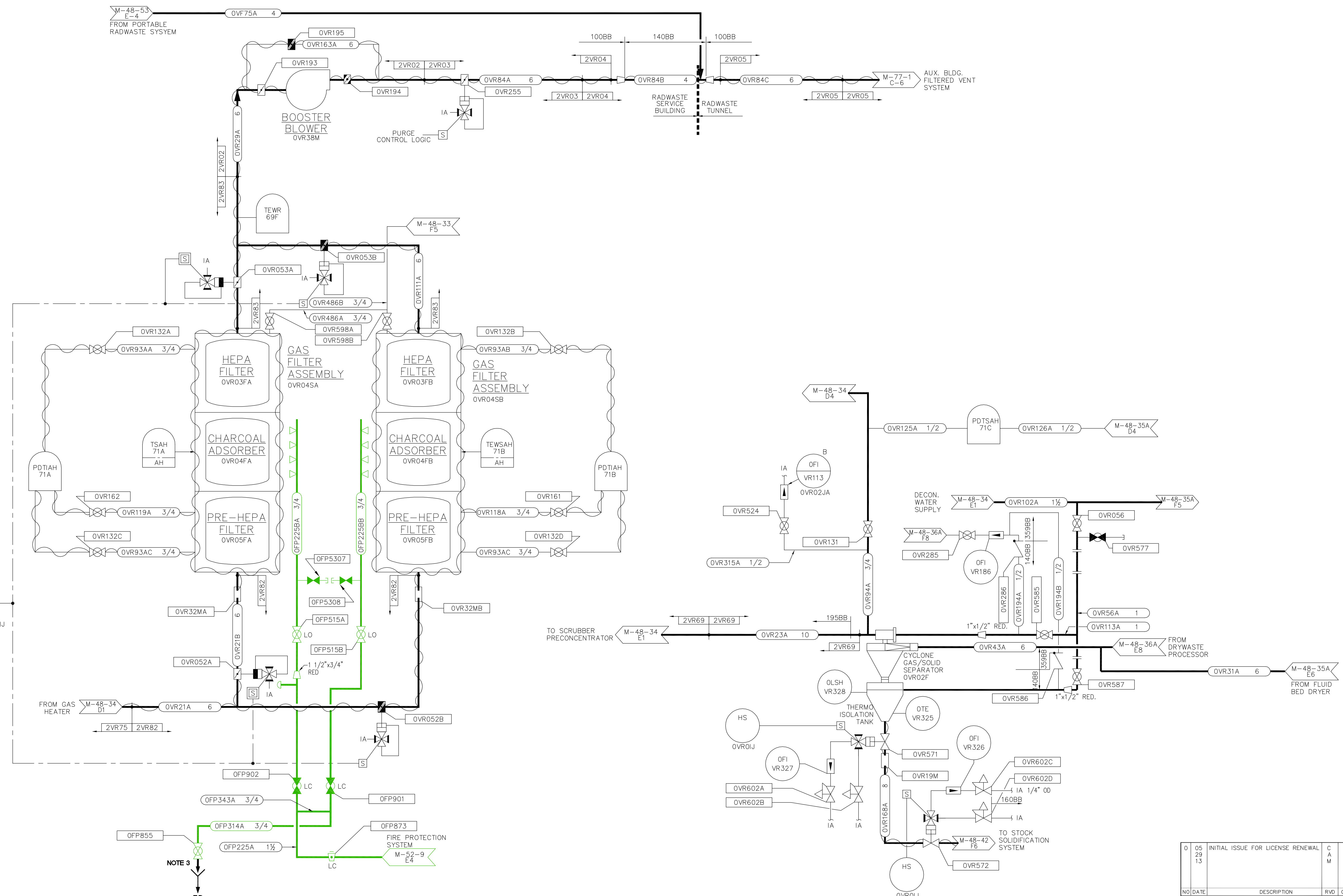
05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
NO	DATE	DESCRIPTION	RVD	CKD	APD		
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF AUXILIARY BLDG. CHROMATED DRAIN COLLECTION SYSTEM UNIT 1 & 2							
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.							
LR-BRW-M-48		SHEET 29					0



- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 31, REVISION AJ.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
RWS - RADWASTE SYSTEM
  - HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  - PULSATION DAMPERS ARE INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - PIPING IN THIS AREA IS REMOVED.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	POT	J	A	R
			J	J	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING BLOWDOWN/MIXED BED DEMINERALIZER REGENERATION SKID UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-48 SHEET 31 0					

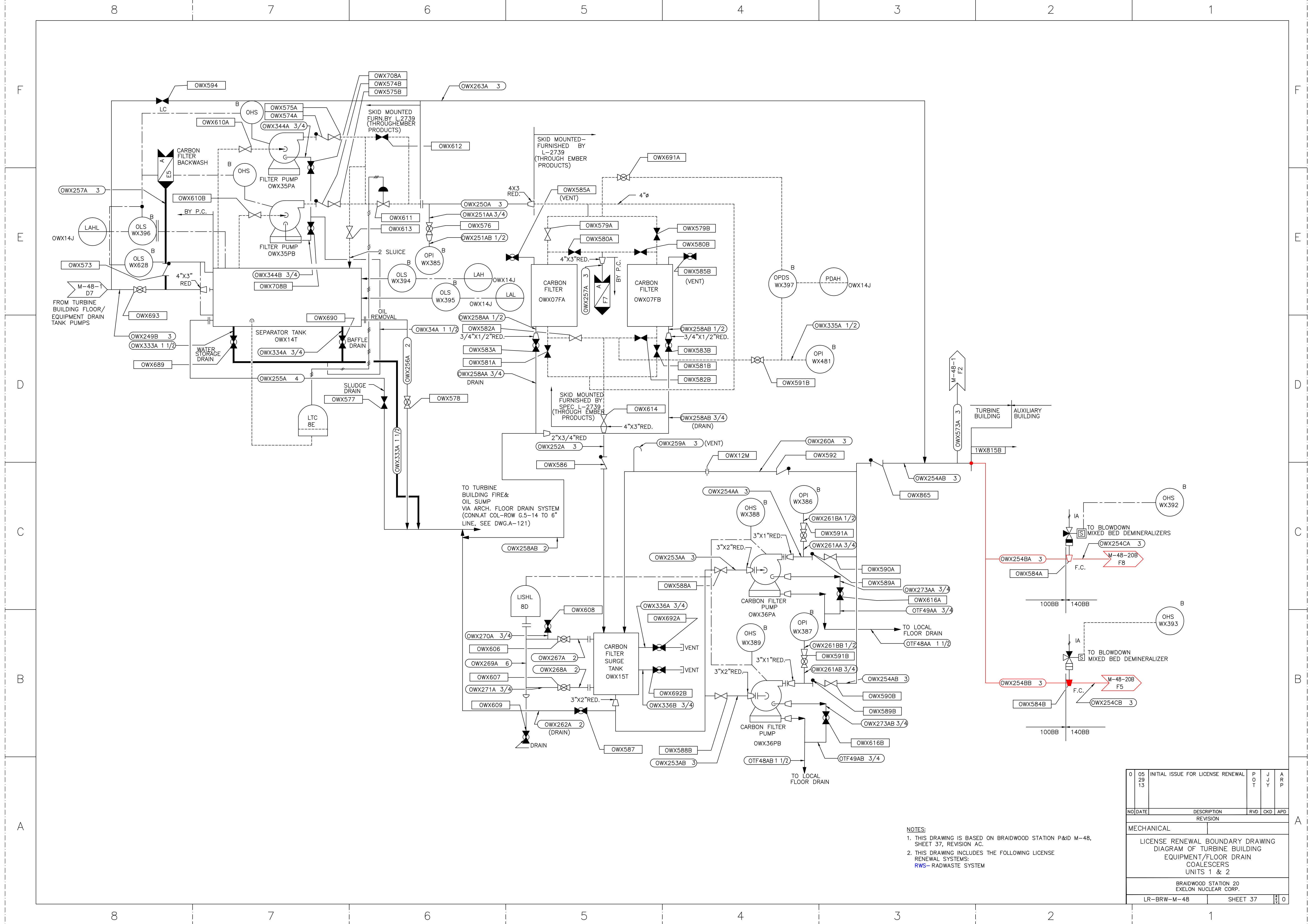




NOTE 3

- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 35B, REVISION AX.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS- FIRE PROTECTION SYSTEM
  3. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT IS NOT LOCATED IN THE VICINITY OF SAFETY-RELATED COMPONENTS, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

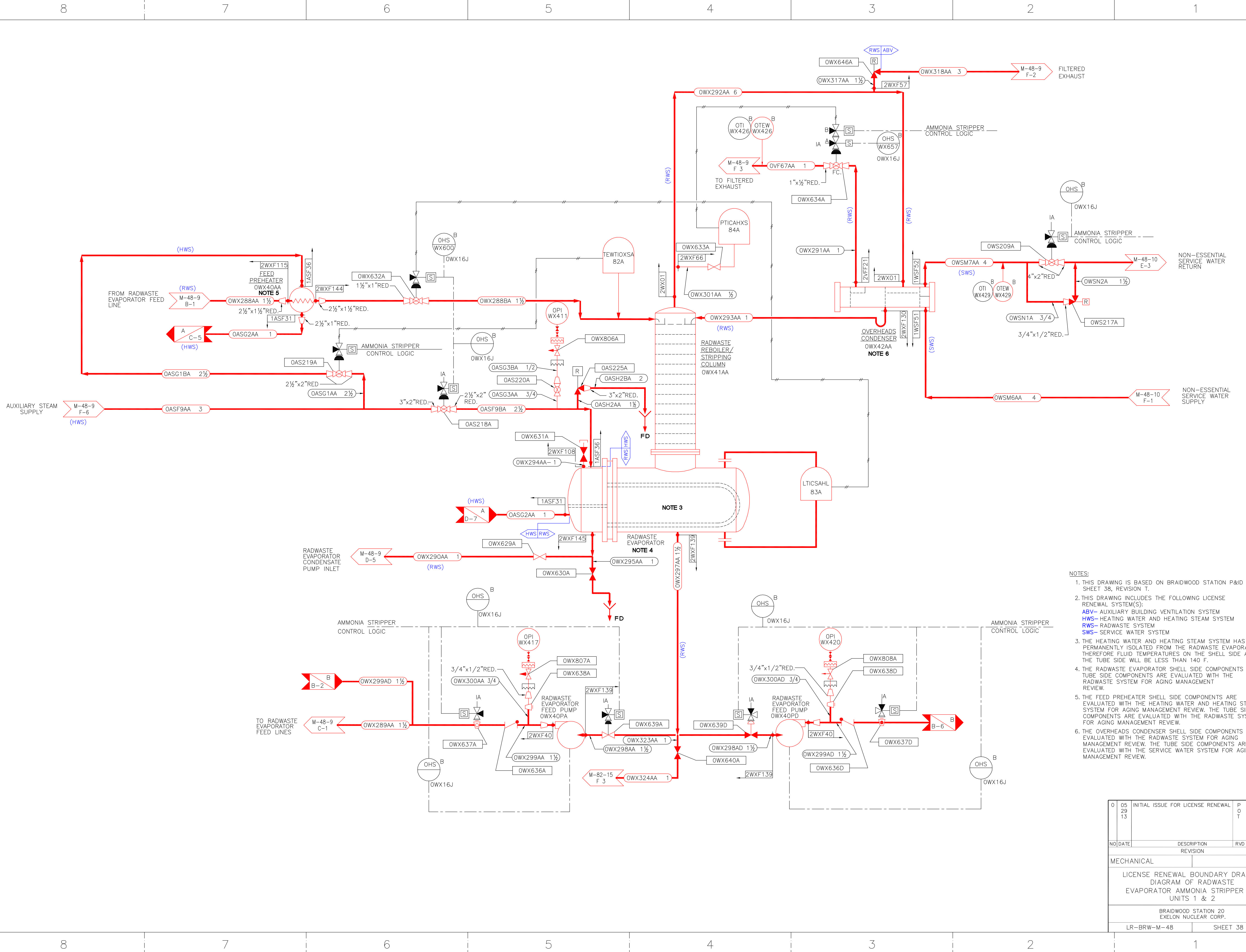
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	C A M	P F C	A R P
NO. DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF VOLUME REDUCTION UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-48		SHEET 35B		0



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 37, REVISION AC.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
 RWS- RADWASTE SYSTEM

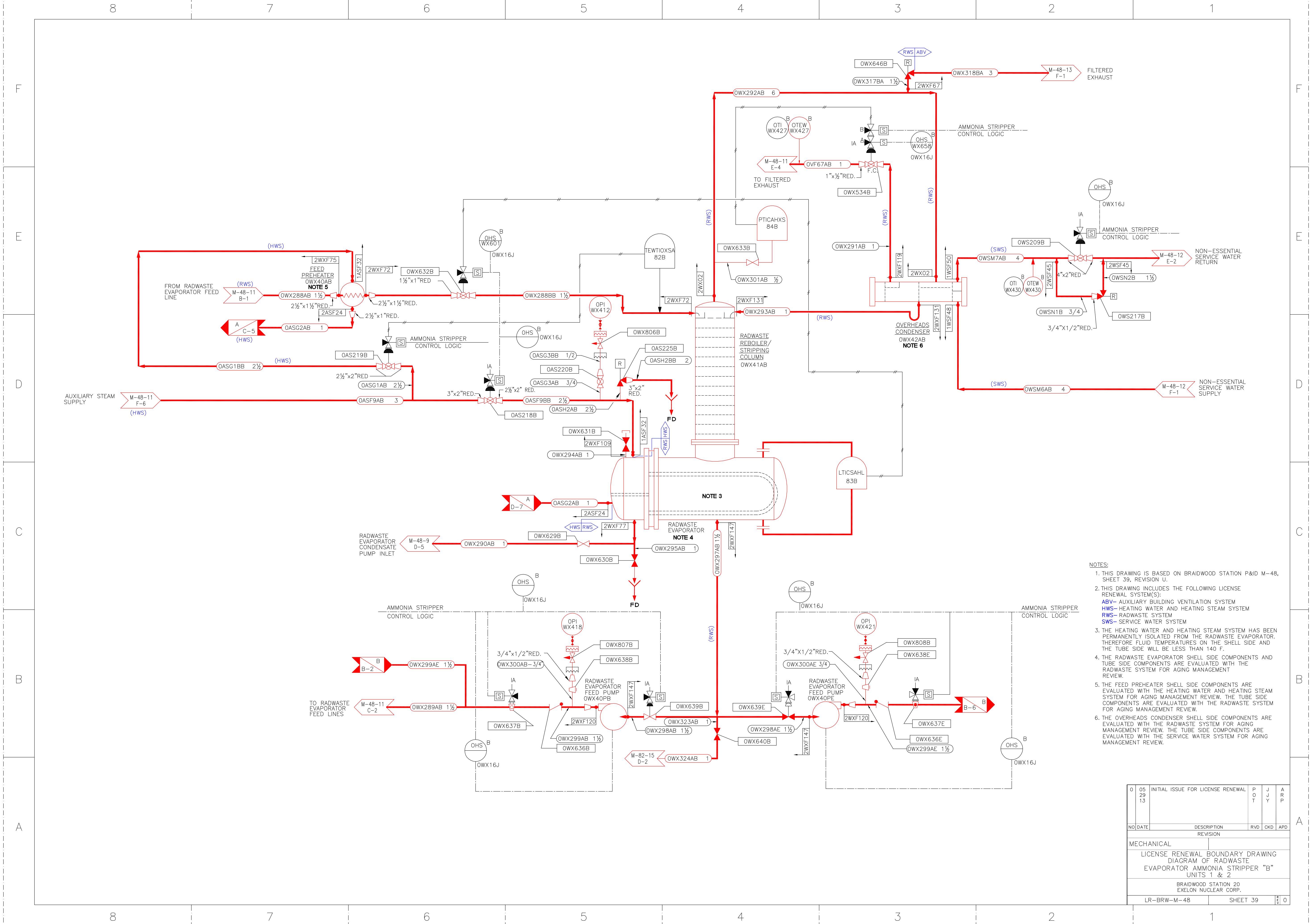
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29			O	J	R
13			T	Y	P
NO DATE			REVISION		
MECHANICAL			REVISION		
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF TURBINE BUILDING EQUIPMENT/FLOOR DRAIN COALESCERS UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-48			SHEET 37		0





- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 38, REVISION T.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 HWS- HEATING WATER AND HEATING STEAM SYSTEM  
 RWS- RADWASTE SYSTEM  
 SWS- SERVICE WATER SYSTEM
  3. THE HEATING WATER AND HEATING STEAM SYSTEM HAS BEEN PERMANENTLY ISOLATED FROM THE RADWASTE EVAPORATOR, THEREFORE FLUID TEMPERATURES ON THE SHELL SIDE AND THE TUBE SIDE WILL BE LESS THAN 140 F.
  4. THE RADWASTE EVAPORATOR SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW.
  5. THE FEED PREHEATER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW.
  6. THE OVERHEADS CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

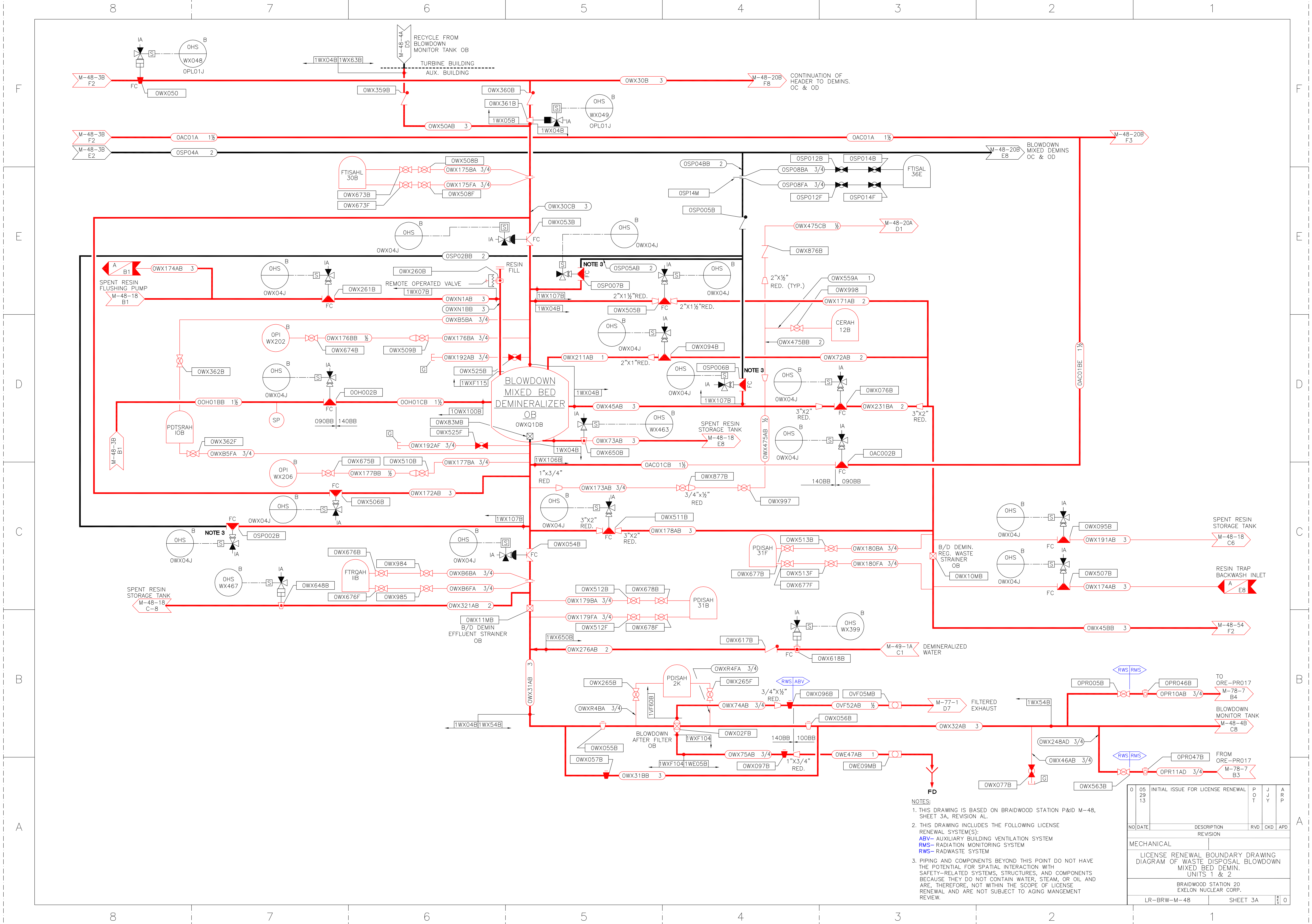
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
	29		O	J	R
	13		T	Y	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF RADWASTE EVAPORATOR AMMONIA STRIPPER "A" UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-48			SHEET 38		0



- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 39, REVISION U.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 HWS- HEATING WATER AND HEATING STEAM SYSTEM  
 RWS- RADWASTE SYSTEM  
 SWS- SERVICE WATER SYSTEM
  3. THE HEATING WATER AND HEATING STEAM SYSTEM HAS BEEN PERMANENTLY ISOLATED FROM THE RADWASTE EVAPORATOR. THEREFORE FLUID TEMPERATURES ON THE SHELL SIDE AND THE TUBE SIDE WILL BE LESS THAN 140 F.
  4. THE RADWASTE EVAPORATOR SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW.
  5. THE FEED PREHEATER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW.
  6. THE OVERHEADS CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
		O	J	R
		T	Y	P
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF RADWASTE				
EVAPORATOR AMMONIA STRIPPER "B"				
UNITS 1 & 2				
BRAIDWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-48	SHEET 39			0

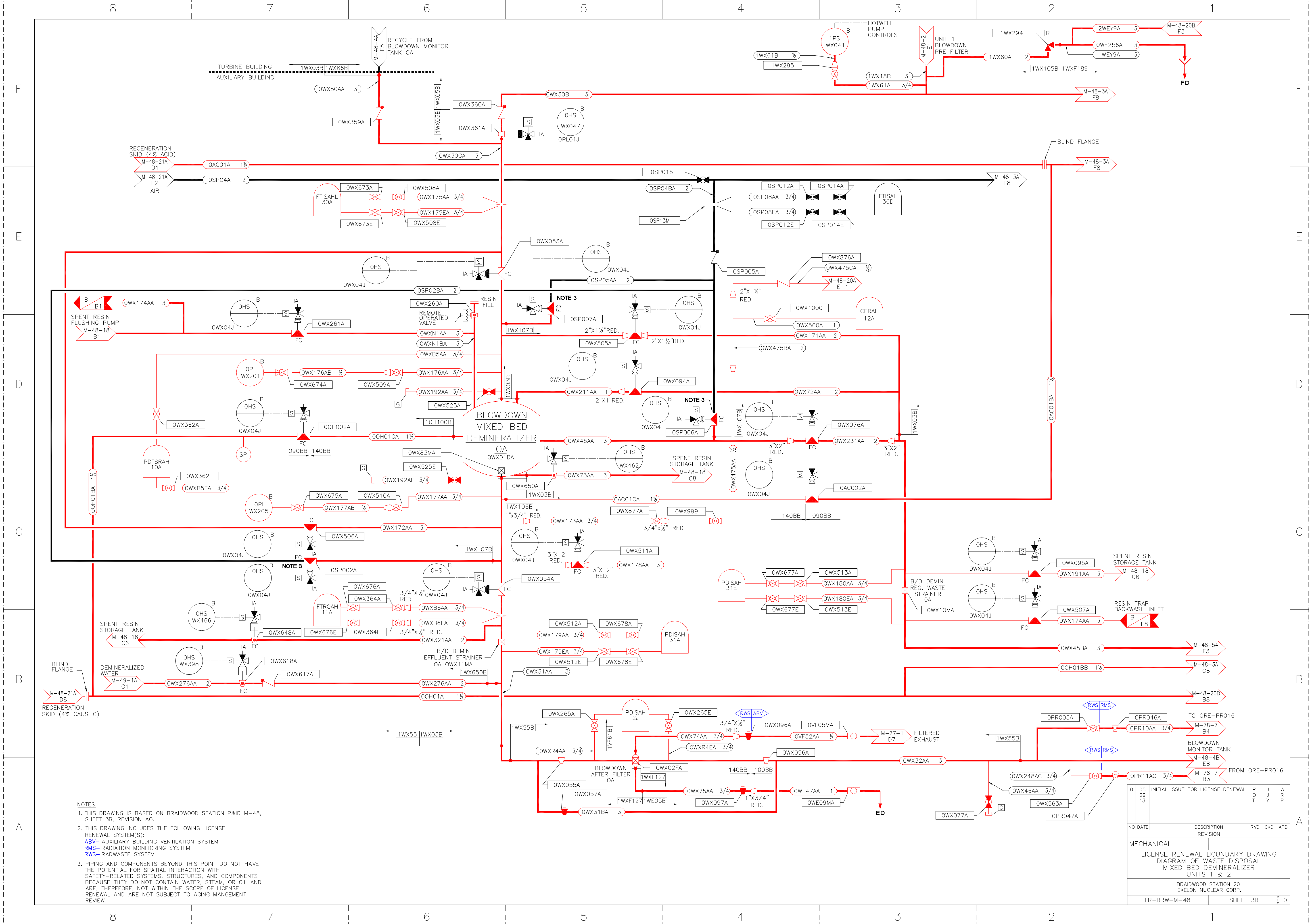




NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 3A, REVISION AL.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RMS- RADIATION MONITORING SYSTEM  
 RWS- RADWASTE SYSTEM
3. PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.

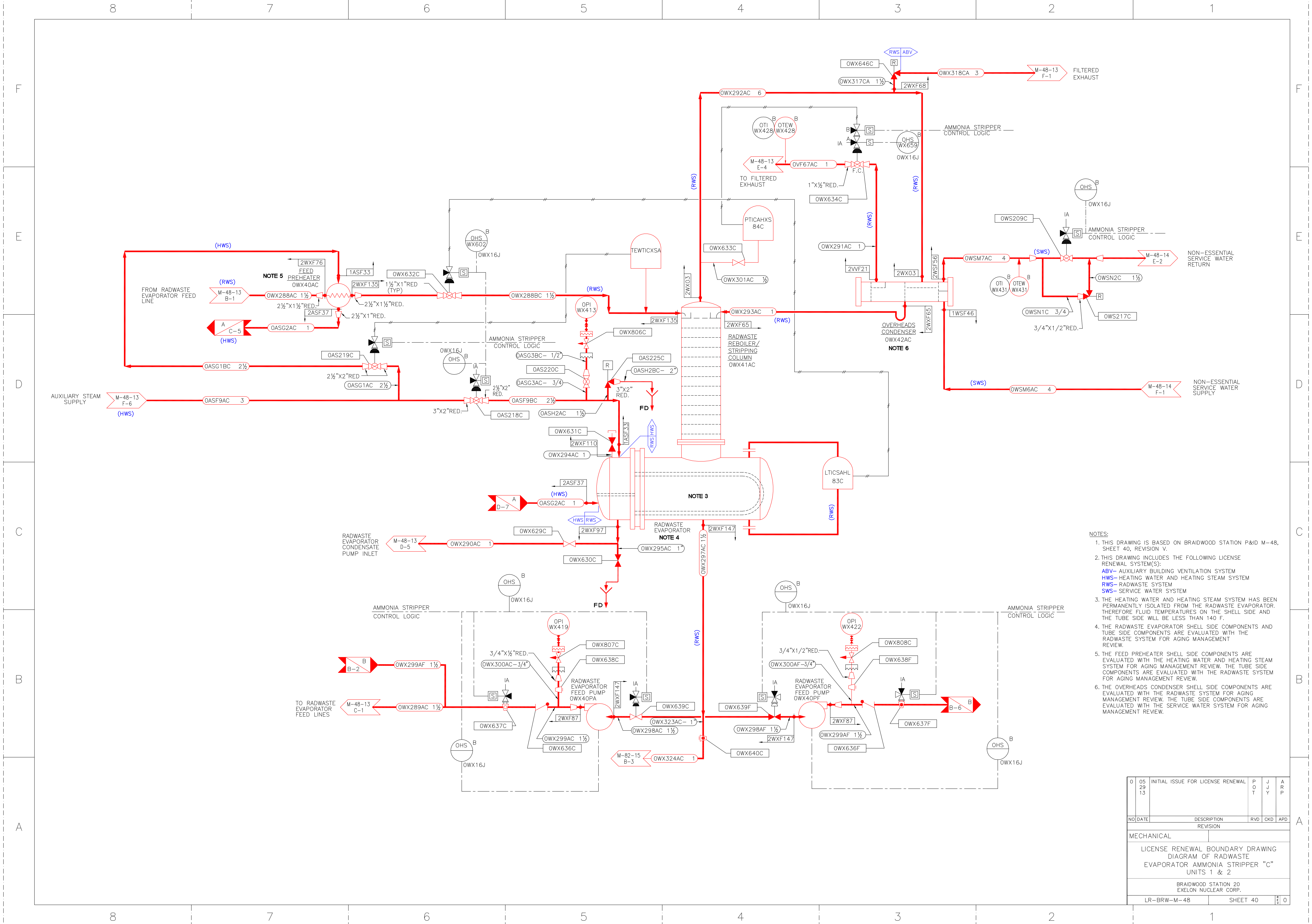
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
		O	J	R	P
NO DATE	DESCRIPTION	RVD	CKD	APD	
	REVISION				
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF WASTE DISPOSAL BLOWDOWN					
MIXED BED DEMIN.					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-48	SHEET 3A				0



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 3B, REVISION A0.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RMS- RADIATION MONITORING SYSTEM  
 RWS- RADWASTE SYSTEM  
 3. PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANGEMENT REVIEW.

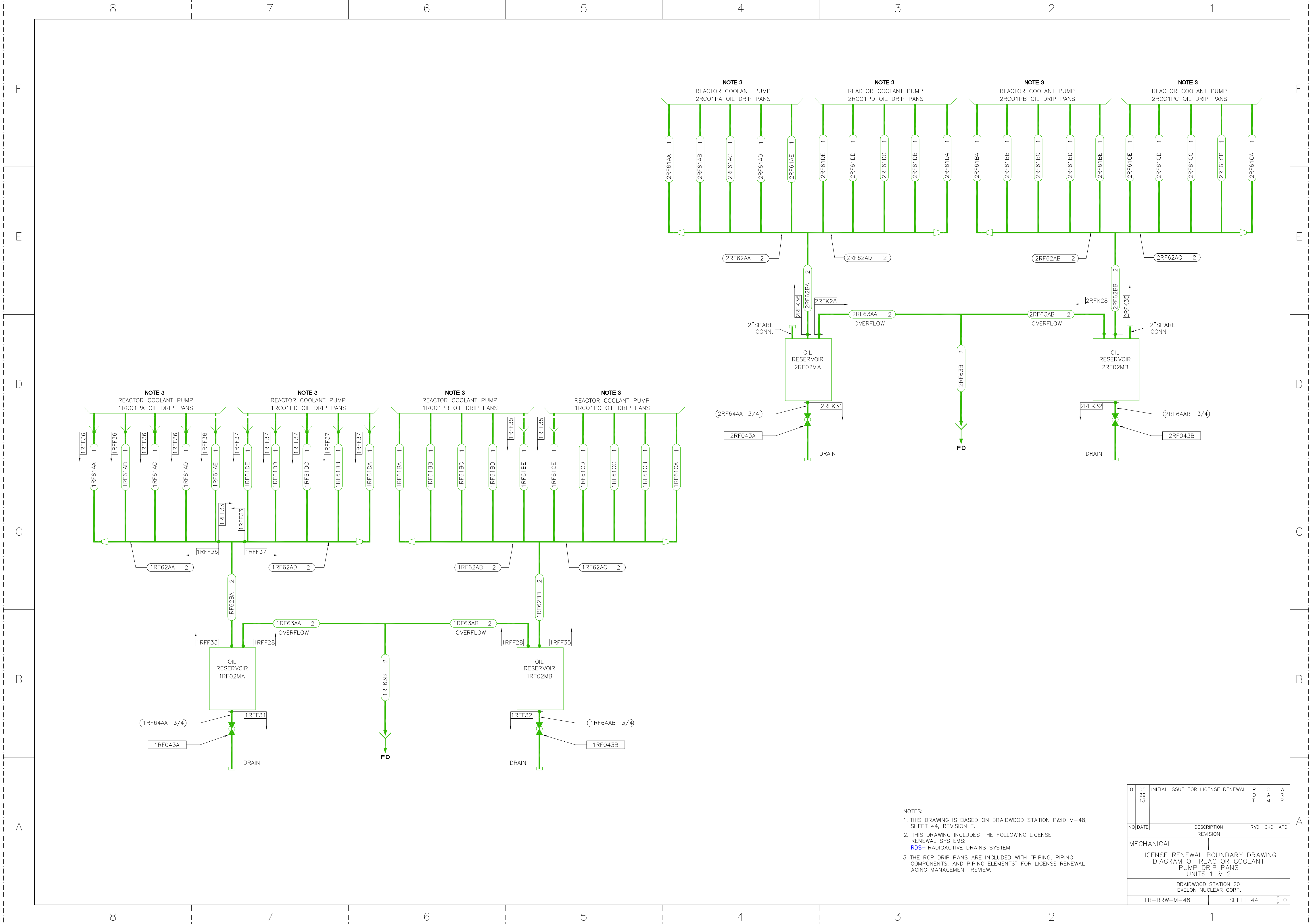
0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	J	A	R
NO	DATE	DESCRIPTION	REVISION	RVD	CKD	APD			
MECHANICAL									
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF WASTE DISPOSAL MIXED BED DEMINERALIZER UNITS 1 & 2									
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.									
LR-BRW-M-48 SHEET 3B 0									





- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 40, REVISION V.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 HWS- HEATING WATER AND HEATING STEAM SYSTEM  
 RWS- RADWASTE SYSTEM  
 SWS- SERVICE WATER SYSTEM
  3. THE HEATING WATER AND HEATING STEAM SYSTEM HAS BEEN PERMANENTLY ISOLATED FROM THE RADWASTE EVAPORATOR. THEREFORE FLUID TEMPERATURES ON THE SHELL SIDE AND THE TUBE SIDE WILL BE LESS THAN 140 F.
  4. THE RADWASTE EVAPORATOR SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW.
  5. THE FEED PREHEATER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW.
  6. THE OVERHEADS CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29			O	J	R
13			T	Y	P
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF RADWASTE EVAPORATOR AMMONIA STRIPPER "C" UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-48		SHEET 40		0	



**NOTE 3**  
 REACTOR COOLANT PUMP  
 2RCO1PA OIL DRIP PANS

**NOTE 3**  
 REACTOR COOLANT PUMP  
 2RCO1PD OIL DRIP PANS

**NOTE 3**  
 REACTOR COOLANT PUMP  
 2RCO1PB OIL DRIP PANS

**NOTE 3**  
 REACTOR COOLANT PUMP  
 2RCO1PC OIL DRIP PANS

**NOTE 3**  
 REACTOR COOLANT PUMP  
 1RCO1PA OIL DRIP PANS

**NOTE 3**  
 REACTOR COOLANT PUMP  
 1RCO1PD OIL DRIP PANS

**NOTE 3**  
 REACTOR COOLANT PUMP  
 1RCO1PB OIL DRIP PANS

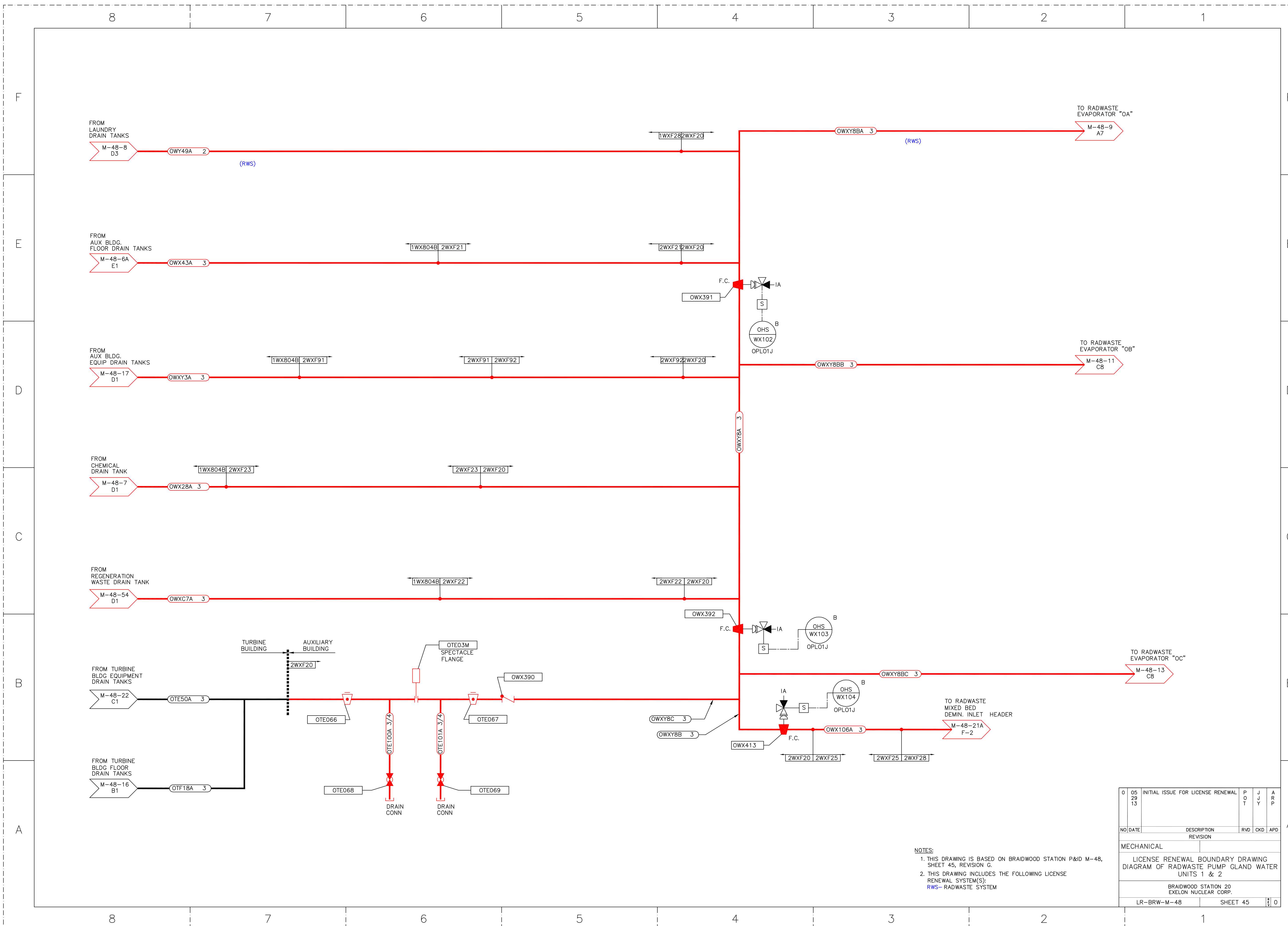
**NOTE 3**  
 REACTOR COOLANT PUMP  
 1RCO1PC OIL DRIP PANS

**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 44, REVISION E.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
**RDS**- RADIOACTIVE DRAINS SYSTEM
- THE RCP DRIP PANS ARE INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

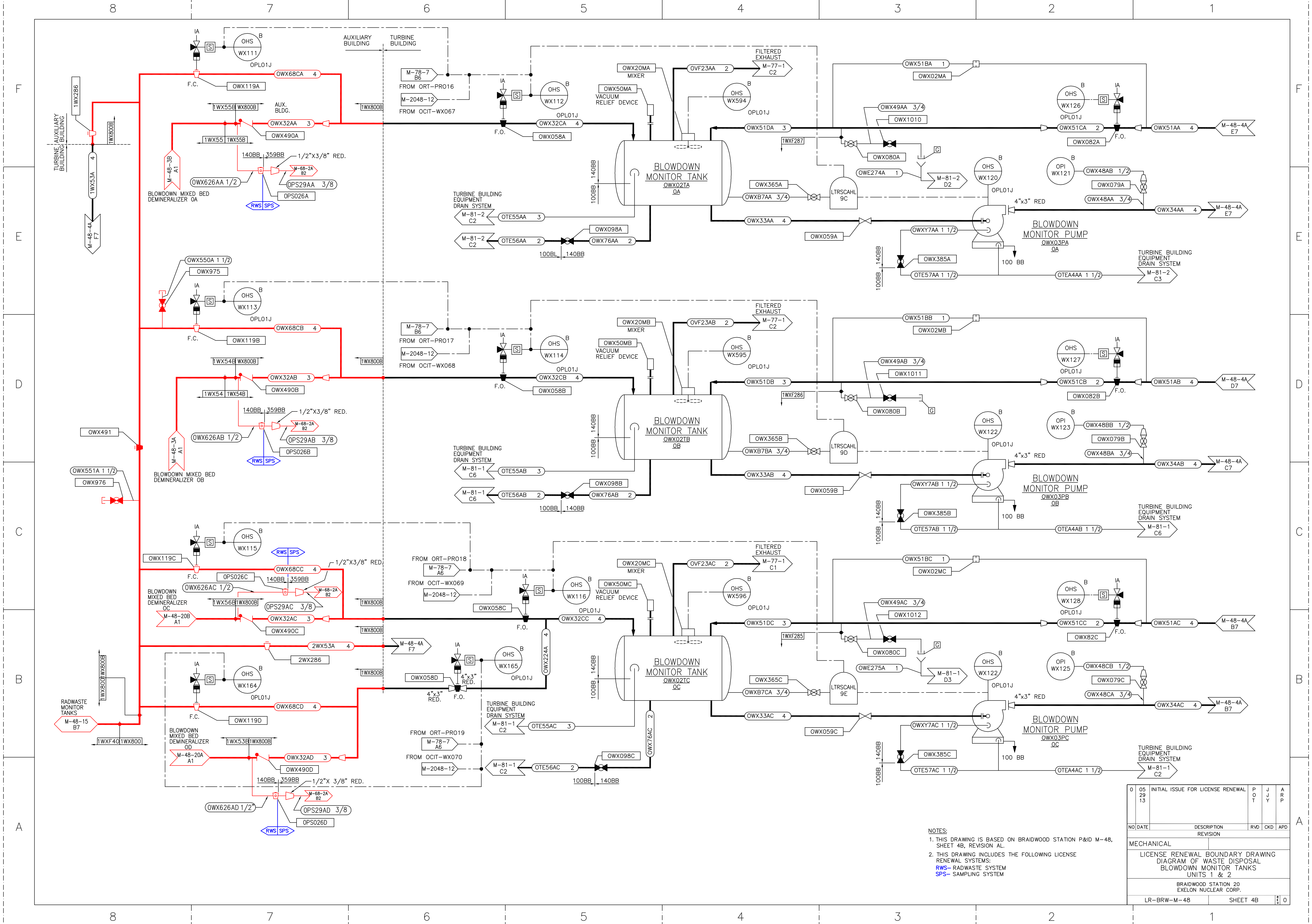
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P O T	C A M	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT PUMP DRIP PANS UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-48	SHEET 44	0		





**NOTES:**  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 45, REVISION C.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 RWS - RADWASTE SYSTEM

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
				O	J	R
				T	Y	P
NO	DATE		DESCRIPTION	RVD	CKD	APD
			REVISION			
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF RADWASTE PUMP GLAND WATER						
UNITS 1 & 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-48			SHEET 45			0



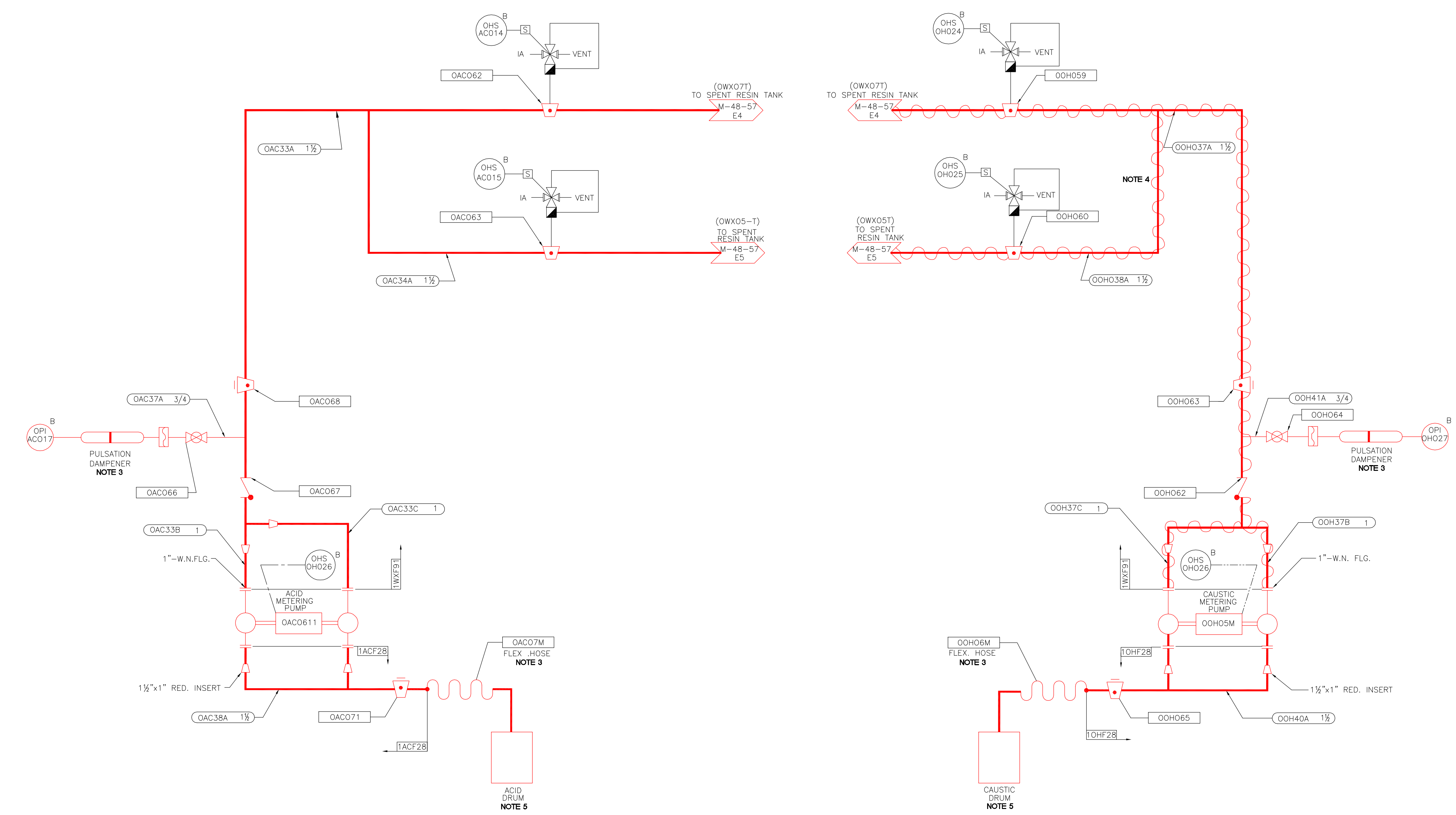
NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 4B, REVISION AL.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
 RWS - RADWASTE SYSTEM  
 SPS - SAMPLING SYSTEM

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	
29		O	J	R	
13		T	Y	P	
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF WASTE DISPOSAL					
BLOWDOWN MONITOR TANKS					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-48		SHEET 4B			0



8 7 6 5 4 3 2 1

F E D C B A



- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 52, REVISION G.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM:  
*RWS* - RADWASTE SYSTEM
  3. PULSATION DAMPENERS AND FLEXIBLE CONNECTIONS ARE INCLUDED WITH THE COMPONENT TYPE "PIPING, PIPING COMPONENTS AND PIPING ELEMENTS" FOR LICENCE RENEWAL AGING MANAGEMENT REVIEW.
  4. HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  5. THE ACID DRUM AND CAUSTIC DRUM ARE PERIODICALLY REPLACED AND, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		O	J	R
			T	Y	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF ACID & CAUSTIC FEED					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-48		SHEET 52			0

8 7 6 5 4 3 2 1

F E D C B A

8 7 6 5 4 3 2 1

F

F

E

E

D

D

C

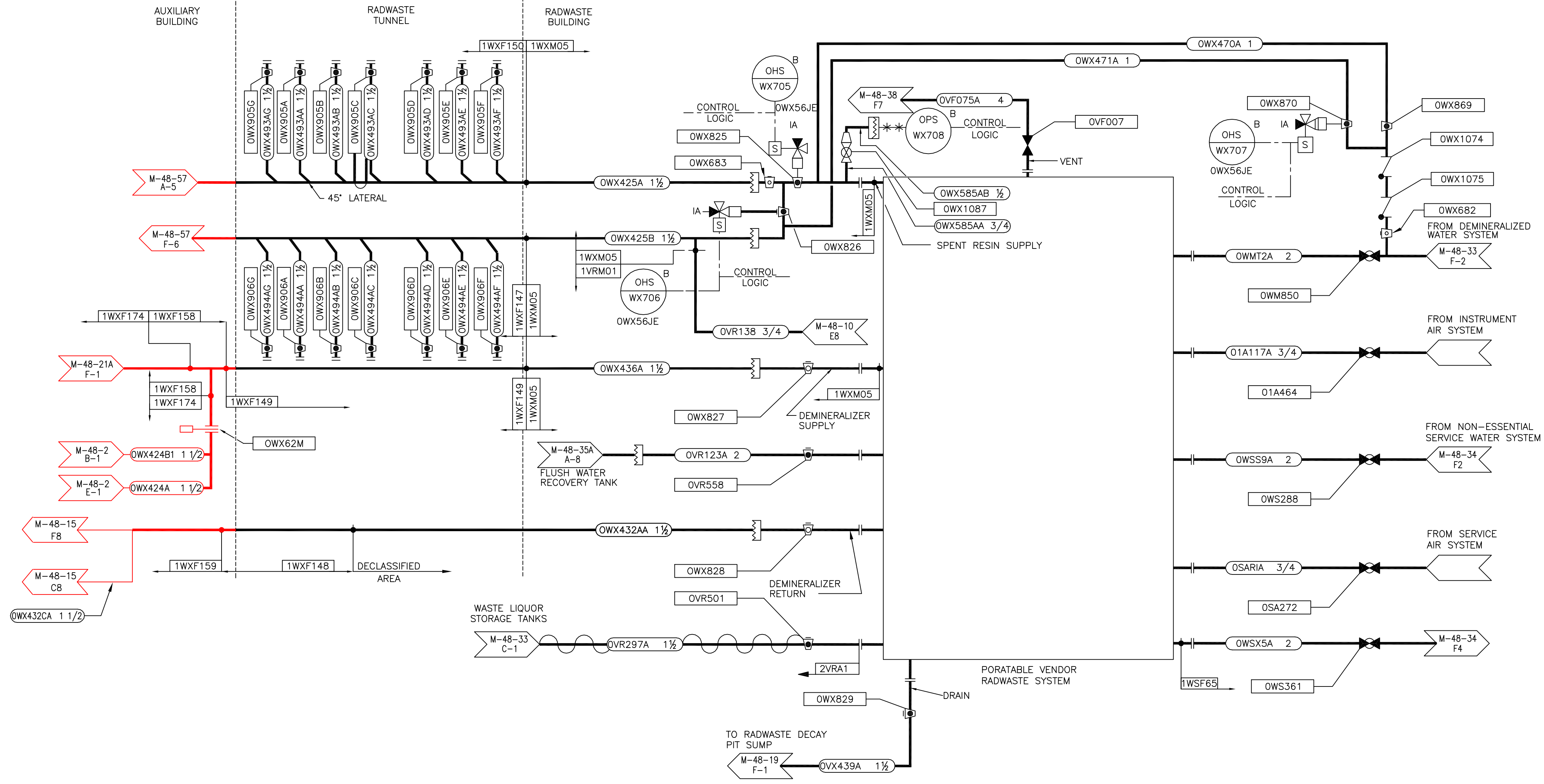
C

B

B

A

A

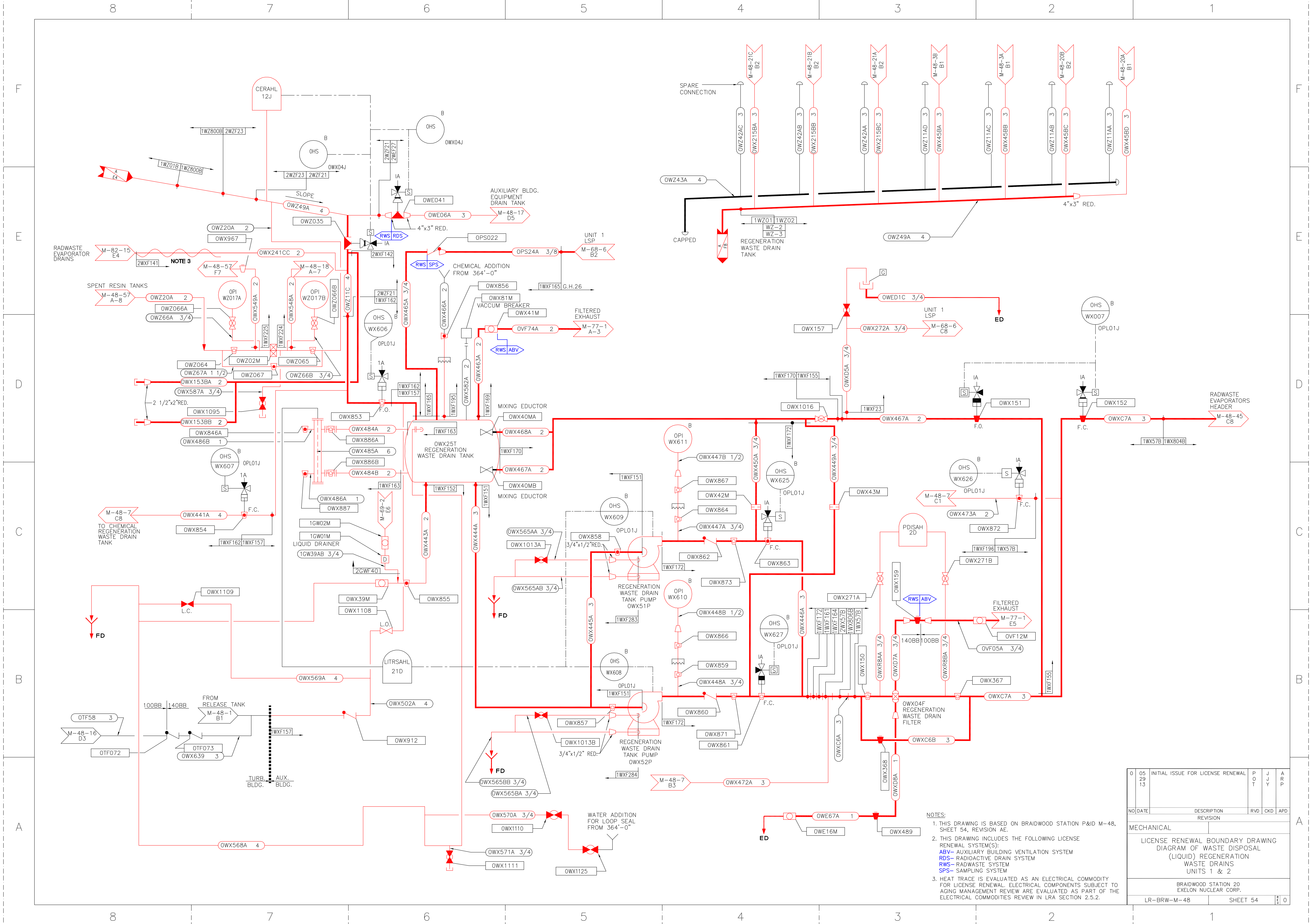


NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 53, REVISION 5.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 RWS-RADWASTE SYSTEM

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P O T	J J Y	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PORTABLE VENDOR RADWASTE SYSTEM UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-48	SHEET 53	0		

8 7 6 5 4 3 2 1

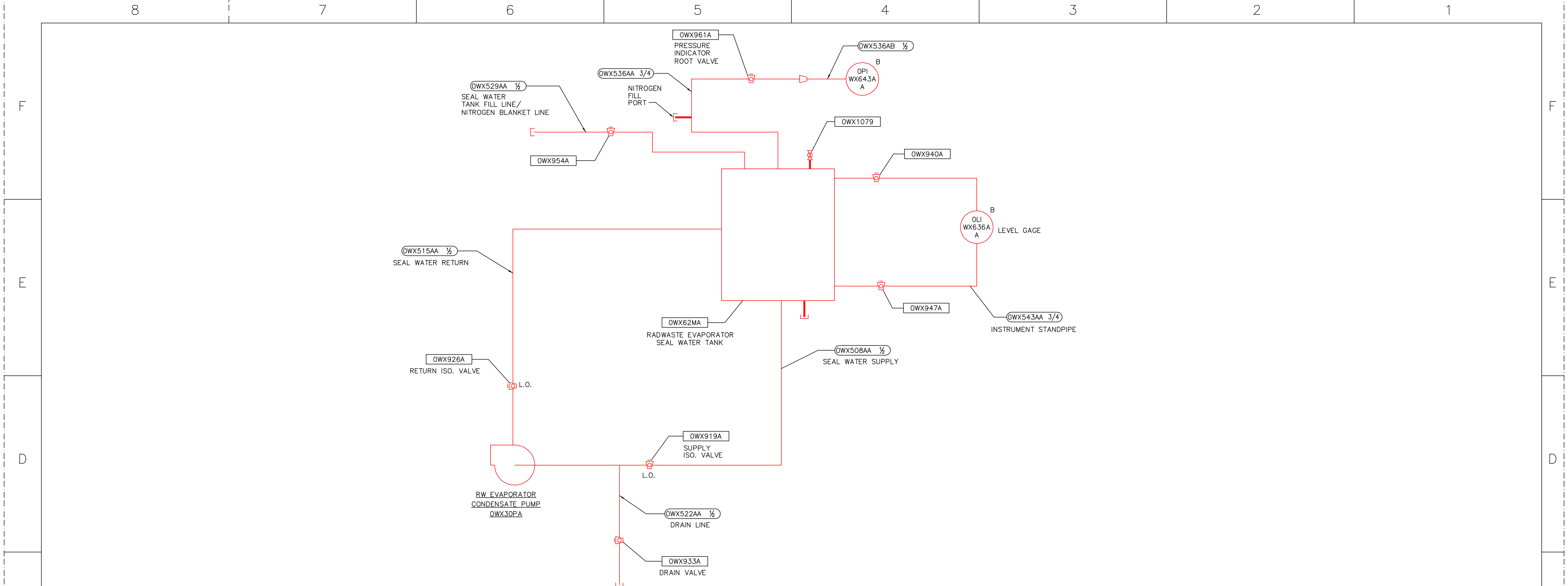




NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 54, REVISION AE.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 RWS- RADWASTE SYSTEM  
 SPS- SAMPLING SYSTEM
- HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	O	J	A	R
29						
13						
NO	DATE	DESCRIPTION	REV	CKD	APD	
		REVISION				
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF WASTE DISPOSAL (LIQUID) REGENERATION WASTE DRAINS UNITS 1 & 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-48			SHEET 54		0	

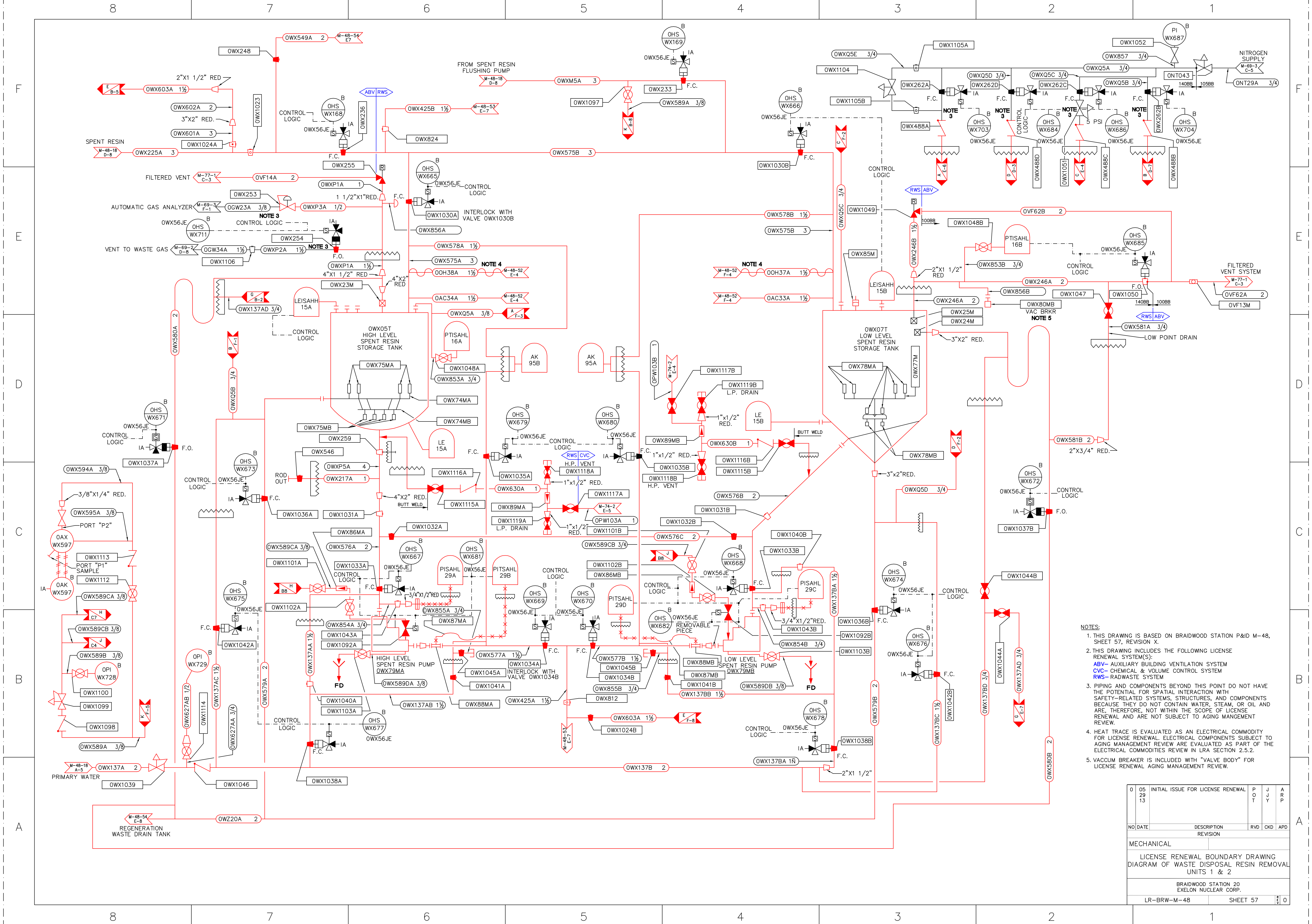


PUMP	EQUIPMENT NO.	SEAL WATER TANK	SEAL WATER SUPPLY LINE	SUB-SYSTEM	SEAL WATER SUPPLY ISO. VALVE	SEAL WATER RETURN LINE	SUB-SYSTEM	SEAL WATER RETURN ISO. VALVE	DRAIN LINE	SUB-SYSTEM	DRAIN VALVE	INSTRUMENT STANDPIPE LINE NO.	INSTRUMENT ISO. VALVES	SEAL WATER TANK LEVEL GAGE NO.	SEAL WATER FILL/NITROGEN BLANKET LINE	SUB-SYSTEM	FILL LINE ISO. VALVE	PRESSURE INDICATOR NUMBER	PRESSURE INDICATOR ROOT VALVE	PRESSURE INDICATOR LINE NUMBERS	
RW EVAPORATOR CONDENSATE	OWX30PA OWX30PB OWX30PC OWX30PD OWX30PE OWX30PF	OWX62MA OWX62MB OWX62MC OWX62MD OWX62ME OWX62MF	OWX508AA 1/2 OWX508BA 1/2 OWX508CA 1/2 OWX508DA 1/2 OWX508EA 1/2 OWX508FA 1/2	1WXF210 1WXF181 1WXF199 1WXF212 1WXF208 1WXF191	OWX919A OWX919B OWX919C OWX919D OWX919E OWX919F	OWX515AA 1/2 OWX515BA 1/2 OWX515CA 1/2 OWX515DA 1/2 OWX515EA 1/2 OWX515FA 1/2	1WXF211 1WXF182 1WXF204 1WXF213 1WXF207 1WXF190	OWX926A OWX926B OWX926C OWX926D OWX926E OWX926F	OWX522AA 1/2 OWX522BA 1/2 OWX522CA 1/2 OWX522DA 1/2 OWX522EA 1/2 OWX522FA 1/2	1WXF210 1WXF181 1WXF199 1WXF212 1WXF208 1WXF191	OWX933A OWX933B OWX933C OWX933D OWX933E OWX933F	OWX543AA 3/4 OWX543BA 3/4 OWX543CA 3/4 OWX543DA 3/4 OWX543EA 3/4 OWX543FA 3/4	OWX940A OWX940B OWX940C OWX940D OWX940E OWX940F	OLI-WX636A(B) OLI-WX636B(B) OLI-WX636C(B) OLI-WX636D(B) OLI-WX636E(B) OLI-WX636F(B)	OWX529AA 1/2 OWX529BA 1/2 OWX529CA 1/2 OWX529DA 1/2 OWX529EA 1/2 OWX529FA 1/2	1WXF266 1WXF178 1WXF275 1WXF267 1WXF272 1WXF237	OWX954A OWX954B OWX954C OWX954D OWX954E OWX954F	OPI-WX643A(B) OPI-WX643B(B) OPI-WX643C(B) OPI-WX643D(B) OPI-WX643E(B) OPI-WX643F(B)	OWX961A OWX961B OWX961C OWX961D OWX961E OWX961F	OWX536AA 3/4 OWX536BA 3/4 OWX536CA 3/4 OWX536DA 3/4 OWX536EA 3/4 OWX536FA 3/4	OWX536AB 1/2 OWX536BB 1/2 OWX536CB 1/2 OWX536DB 1/2 OWX536EB 1/2 OWX536FB 1/2
RW EVAPORATOR CONCENTRATE	OWX26PA OWX26PB OWX26PC OWX26PD OWX26PE OWX26PF	OWX63MA OWX63MB OWX63MC OWX63MD OWX63ME OWX63MF	OWX509AA 1/2 OWX509BA 1/2 OWX509CA 1/2 OWX509DA 1/2 OWX509EA 1/2 OWX509FA 1/2	1WXF233 1WXF253 1WXF215 1WXF262 1WXF234 1WXF228	OWX920A OWX920B OWX920C OWX920D OWX920E OWX920F	OWX516AA 1/2 OWX516BA 1/2 OWX516CA 1/2 OWX516DA 1/2 OWX516EA 1/2 OWX516FA 1/2	1WXF231 1WXF259 1WXF214 1WXF264 1WXF232 1WXF227	OWX927A OWX927B OWX927C OWX927D OWX927E OWX927F	OWX523AA 1/2 OWX523BA 1/2 OWX523CA 1/2 OWX523DA 1/2 OWX523EA 1/2 OWX523FA 1/2	1WXF233 1WXF253 1WXF215 1WXF262 1WXF234 1WXF228	OWX934A OWX934B OWX934C OWX934D OWX934E OWX934F	OWX544AA 3/4 OWX544BA 3/4 OWX544CA 3/4 OWX544DA 3/4 OWX544EA 3/4 OWX544FA 3/4	OWX941A OWX941B OWX941C OWX941D OWX941E OWX941F	OLI-WX637A(B) OLI-WX637B(B) OLI-WX637C(B) OLI-WX637D(B) OLI-WX637E(B) OLI-WX637F(B)	OWX530AA 1/2 OWX530BA 1/2 OWX530CA 1/2 OWX530DA 1/2 OWX530EA 1/2 OWX530FA 1/2	1WXF236 1WXF260 1WXF278 1WXF263 1WXF237 1WXF235	OWX955A OWX955B OWX955C OWX955D OWX955E OWX955F	OPI-WX644A(B) OPI-WX644B(B) OPI-WX644C(B) OPI-WX644D(B) OPI-WX644E(B) OPI-WX644F(B)	OWX962A OWX962B OWX962C OWX962D OWX962E OWX962F	OWX537AA 3/4 OWX537BA 3/4 OWX537CA 3/4 OWX537DA 3/4 OWX537EA 3/4 OWX537FA 3/4	OWX537AB 1/2 OWX537BB 1/2 OWX537CB 1/2 OWX537DB 1/2 OWX537EB 1/2 OWX537FB 1/2
RW EVAPORATOR RECYCLE	OWX31PA OWX31PB OWX31PC	OWX64MA OWX64MB OWX64MC	OWX510AA 1/2 OWX510BA 1/2 OWX510CA 1/2	1WXF223 1WXF240 1WXF239	OWX921A OWX921B OWX921C	OWX517AA 1/2 OWX517BA 1/2 OWX517CA 1/2	1WXF222 1WXF241 1WXF238	OWX928A OWX928B OWX928C	OWX524AA 1/2 OWX524BA 1/2 OWX524CA 1/2	1WXF223 1WXF240 1WXF239	OWX935A OWX935B OWX935C	OWX545AA 3/4 OWX545BA 3/4 OWX545CA 3/4	OWX942A OWX942B OWX942C	OLI-WX638A(B) OLI-WX638B(B) OLI-WX638C(B)	OWX531AA 1/2 OWX531BA 1/2 OWX531CA 1/2	1WXF226 1WXF243 1WXF242	OWX956A OWX956B OWX956C	OPI-WX645A(B) OPI-WX645B(B) OPI-WX645C(B)	OWX963A OWX963B OWX963C	OWX538AA 3/4 OWX538BA 3/4 OWX538CA 3/4	OWX538AB 1/2 OWX538BB 1/2 OWX538CB 1/2
RW EVAPORATOR DISTILLATE	OWX17PA OWX17PB OWX17PC OWX17PD OWX17PE OWX17PF	OWX65MA OWX65MB OWX65MC OWX65MD OWX65ME OWX65MF	OWX511AA 1/2 OWX511BA 1/2 OWX511CA 1/2 OWX511DA 1/2 OWX511EA 1/2 OWX511FA 1/2	1WXF220 1WXF197 1WXF209 1WXF216 1WXF198 1WXF202	OWX922A OWX922B OWX922C OWX922D OWX922E OWX922F	OWX518AA 1/2 OWX518BA 1/2 OWX518CA 1/2 OWX518DA 1/2 OWX518EA 1/2 OWX518FA 1/2	1WXF221 1WXF187 1WXF203 1WXF217 1WXF188 1WXF201	OWX929A OWX929B OWX929C OWX929D OWX929E OWX929F	OWX525AA 1/2 OWX525BA 1/2 OWX525CA 1/2 OWX525DA 1/2 OWX525EA 1/2 OWX525FA 1/2	1WXF220 1WXF197 1WXF209 1WXF216 1WXF198 1WXF202	OWX936A OWX936B OWX936C OWX936D OWX936E OWX936F	OWX546AA 3/4 OWX546BA 3/4 OWX546CA 3/4 OWX546DA 3/4 OWX546EA 3/4 OWX546FA 3/4	OWX943A OWX943B OWX943C OWX943D OWX943E OWX943F	OLI-WX639A(B) OLI-WX639B(B) OLI-WX639C(B) OLI-WX639D(B) OLI-WX639E(B) OLI-WX639F(B)	OWX532AA 1/2 OWX532BA 1/2 OWX532CA 1/2 OWX532DA 1/2 OWX532EA 1/2 OWX532FA 1/2	1WXF219 1WXF278 1WXF279 1WXF265 1WXF280 1WXF281	OWX957A OWX957B OWX957C OWX957D OWX957E OWX957F	OPI-WX646A(B) OPI-WX646B(B) OPI-WX646C(B) OPI-WX646D(B) OPI-WX646E(B) OPI-WX646F(B)	OWX964A OWX964B OWX964C OWX964D OWX964E OWX964F	OWX539AA 3/4 OWX539BA 3/4 OWX539CA 3/4 OWX539DA 3/4 OWX539EA 3/4 OWX539FA 3/4	OWX539AB 1/2 OWX539BB 1/2 OWX539CB 1/2 OWX539DB 1/2 OWX539EB 1/2 OWX539FB 1/2
RW EVAPORATOR FEED	OWX40PA OWX40PB OWX40PC OWX40PD OWX40PE OWX40PF	OWX66MA OWX66MB OWX66MC OWX66MD OWX66ME OWX66MF	OWX512AA 1/2 OWX512BA 1/2 OWX512CA 1/2 OWX512DA 1/2 OWX512EA 1/2 OWX512FA 1/2	1WXF270 1WXF184 1WXF205 1WXF282 1WXF186 1WXF206	OWX930A OWX930B OWX930C OWX930D OWX930E OWX930F	OWX519AA 1/2 OWX519BA 1/2 OWX519CA 1/2 OWX519DA 1/2 OWX519EA 1/2 OWX519FA 1/2	1WXF271 1WXF183 1WXF193 1WXF269 1WXF185 1WXF192	OWX930A OWX930B OWX930C OWX930D OWX930E OWX930F	OWX526AA 1/2 OWX526BA 1/2 OWX526CA 1/2 OWX526DA 1/2 OWX526EA 1/2 OWX526FA 1/2	1WXF270 1WXF184 1WXF205 1WXF282 1WXF186 1WXF206	OWX937A OWX937B OWX937C OWX937D OWX937E OWX937F	OWX547AA 3/4 OWX547BA 3/4 OWX547CA 3/4 OWX547DA 3/4 OWX547EA 3/4 OWX547FA 3/4	OWX944A OWX944B OWX944C OWX944D OWX944E OWX944F	OLI-WX640A(B) OLI-WX640B(B) OLI-WX640C(B) OLI-WX640D(B) OLI-WX640E(B) OLI-WX640F(B)	OWX533AA 1/2 OWX533BA 1/2 OWX533CA 1/2 OWX533DA 1/2 OWX533EA 1/2 OWX533FA 1/2	1WXF276 1WXF179 1WXF274 1WXF277 1WXF180 1WXF273	OWX958A OWX958B OWX958C OWX958D OWX958E OWX958F	OPI-WX647A(B) OPI-WX647B(B) OPI-WX647C(B) OPI-WX647D(B) OPI-WX647E(B) OPI-WX647F(B)	OWX965A OWX965B OWX965C OWX965D OWX965E OWX965F	OWX540AA 3/4 OWX540BA 3/4 OWX540CA 3/4 OWX540DA 3/4 OWX540EA 3/4 OWX540FA 3/4	OWX540AB 1/2 OWX540BB 1/2 OWX540CB 1/2 OWX540DB 1/2 OWX540EB 1/2 OWX540FB 1/2

NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 56, REVISION E.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 RWS - RADWASTE SYSTEM

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P O T	J J Y	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF RADWASTE PUMP SEAL WATER SYSTEMS UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-48	SHEET 56	0		

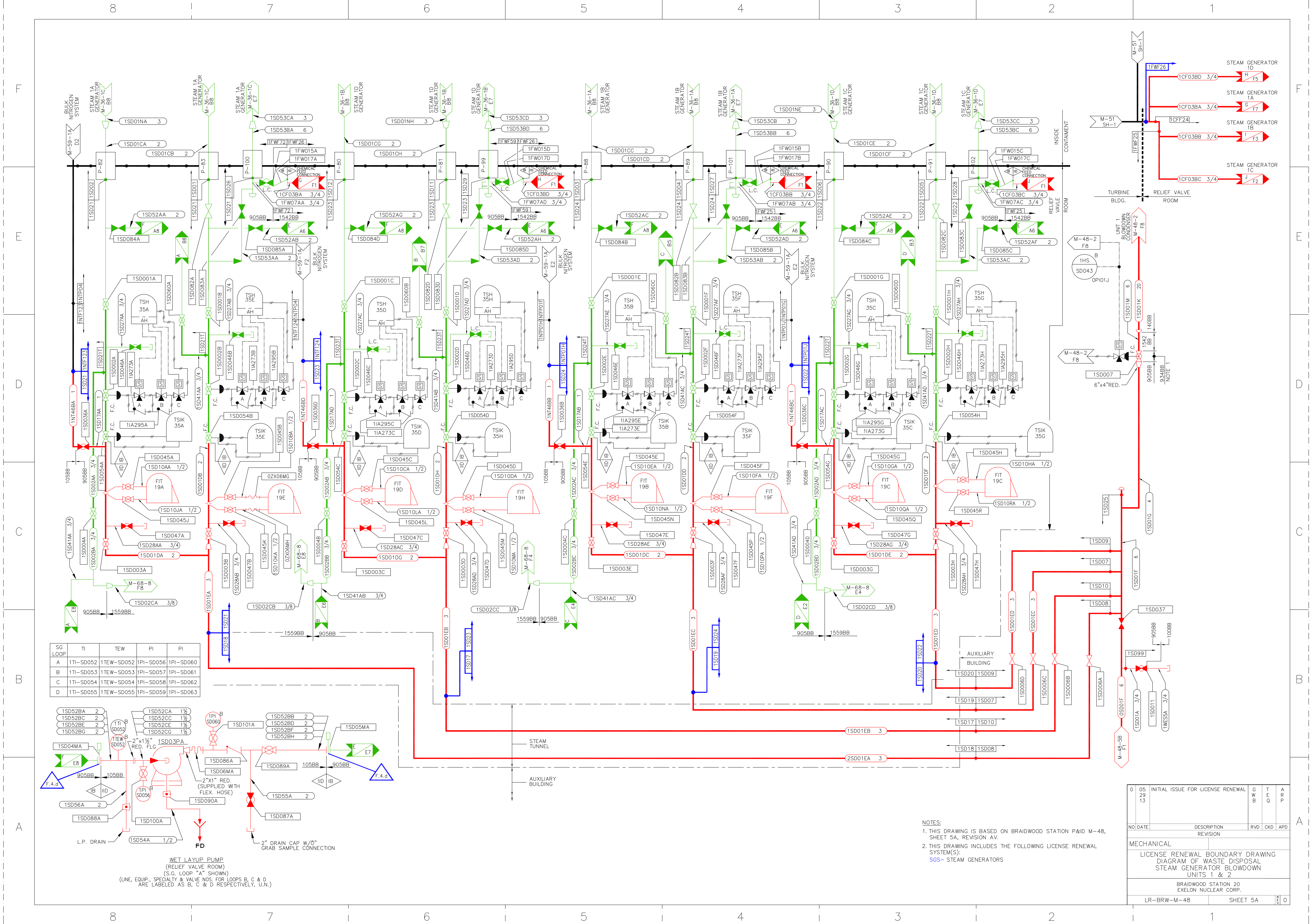




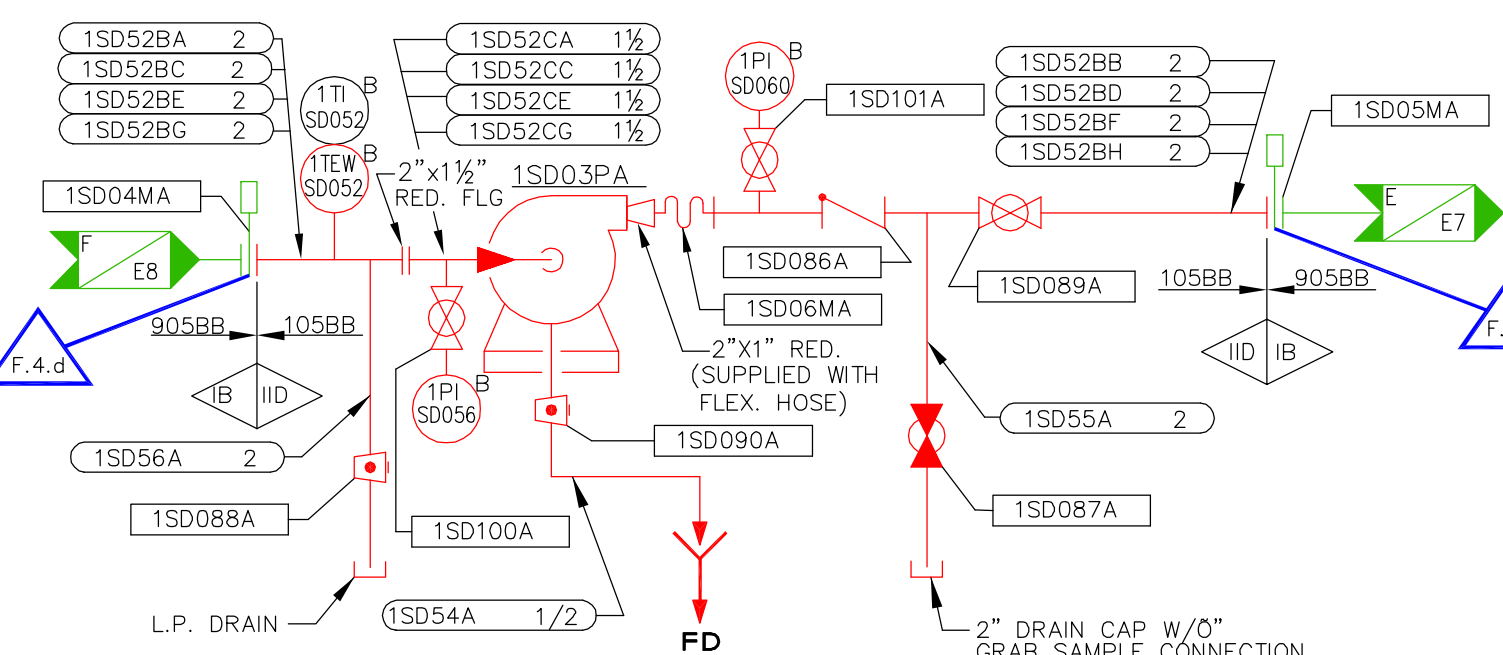
- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 57, REVISION X.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RWS- RADWASTE SYSTEM
  - PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  - VACUUM BREAKER IS INCLUDED WITH "VALVE BODY" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		O	J	R
			T	Y	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF WASTE DISPOSAL RESIN REMOVAL UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-48			SHEET 57		0





SG LOOP	TI	TEW	PI	PI
A	1TI-SD052	1TEW-SD052	1PI-SD056	1PI-SD060
B	1TI-SD053	1TEW-SD053	1PI-SD057	1PI-SD061
C	1TI-SD054	1TEW-SD054	1PI-SD058	1PI-SD062
D	1TI-SD055	1TEW-SD055	1PI-SD059	1PI-SD063

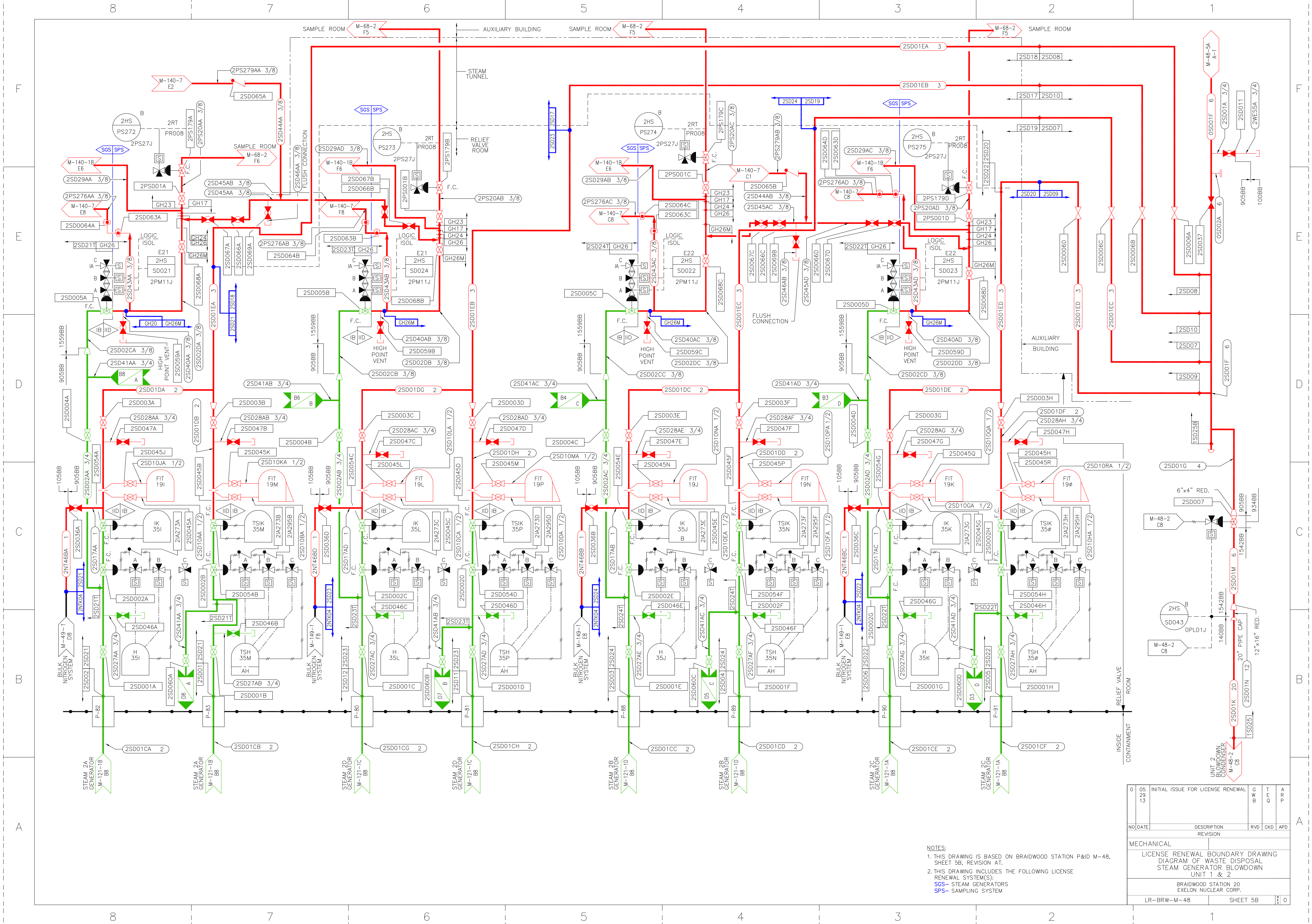


WET LAYUP PUMP  
(RELIEF VALVE ROOM)  
(S.G. LOOP "A" SHOWN)  
(LINE, EQUIP., SPECIALTY & VALVE NOS. FOR LOOPS B, C & D  
ARE LABELED AS B, C & D RESPECTIVELY, U.N.)

- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 5A, REVISION AV.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SGS - STEAM GENERATORS

NO	DATE	DESCRIPTION	RVD	CKD	APD	GWB	TEQ	ARP
0	05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL						
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF WASTE DISPOSAL STEAM GENERATOR BLOWDOWN SYSTEM(S)								
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.								
LR-BRW-M-48							SHEET 5A	

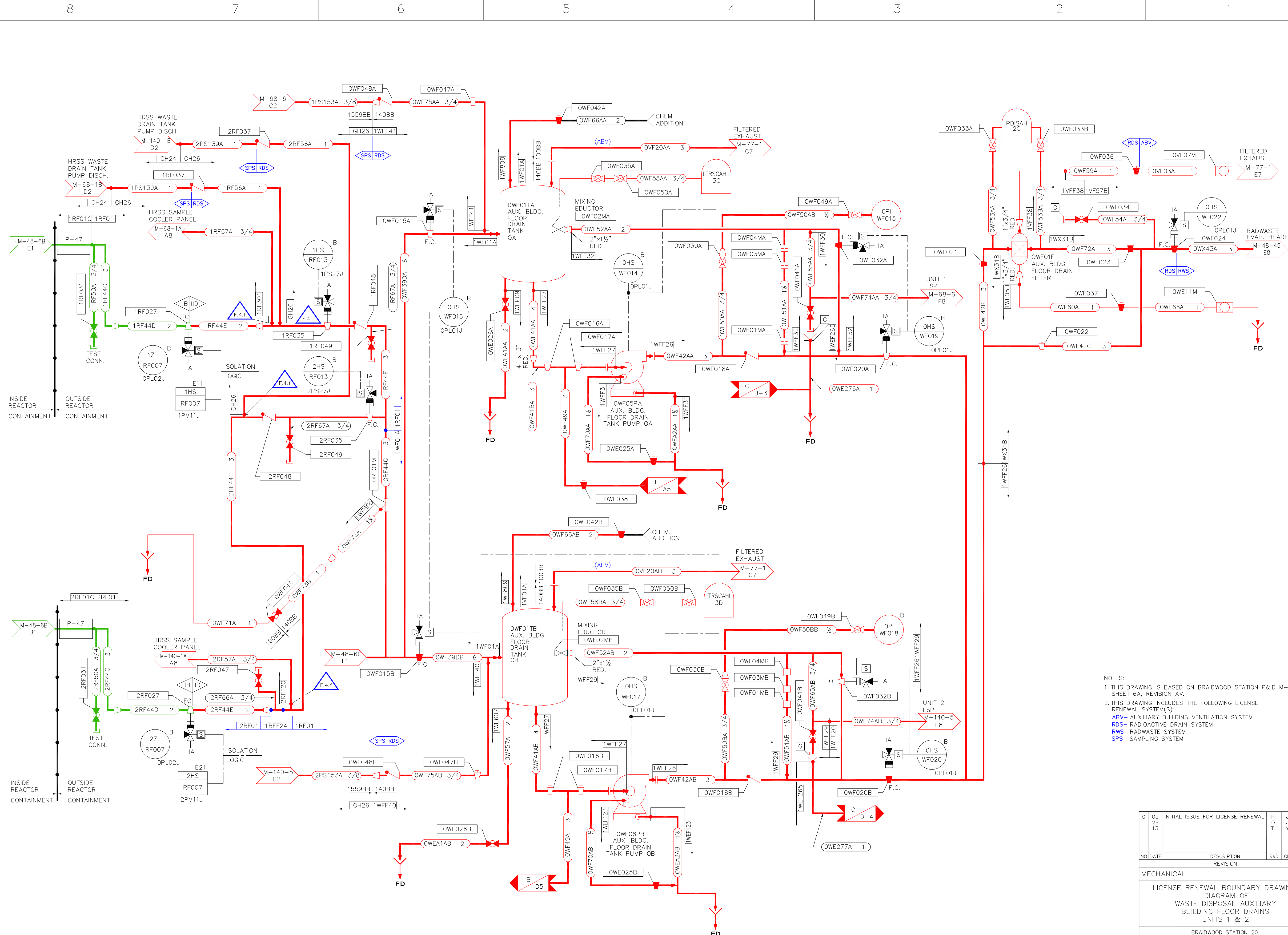




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 5B, REVISION AT.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 SGS- STEAM GENERATORS  
 SPS- SAMPLING SYSTEM

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	C	W	T	A
					B	B	Q	R
								P
								P
NO	DATE	DESCRIPTION			RVD	CKD	APD	
REVISION								
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF WASTE DISPOSAL								
STEAM GENERATOR BLOWDOWN								
UNIT 1 & 2								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-48					SHEET 5B		0	





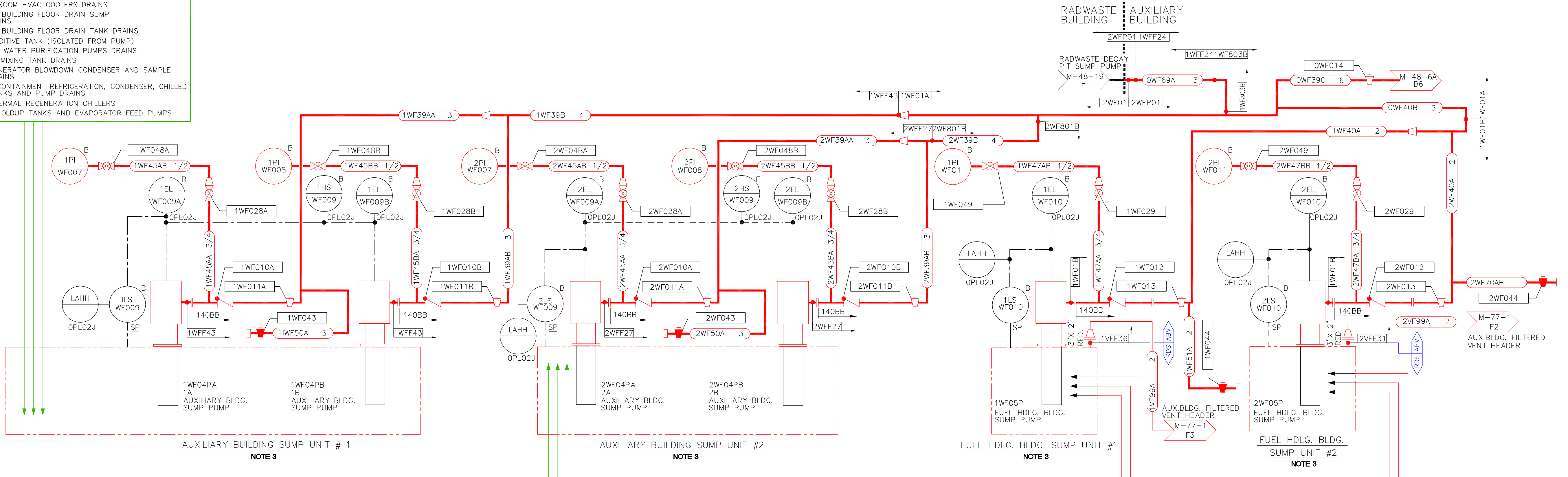
NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 6A, REVISION AV.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 RWS- RADWASTE SYSTEM  
 SPS- SAMPLING SYSTEM

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
					O	J	R
					T	Y	P
NO DATE				DESCRIPTION	RVD	CKD	APD
				REVISION			
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING							
DIAGRAM OF							
WASTE DISPOSAL AUXILIARY							
BUILDING FLOOR DRAINS							
UNITS 1 & 2							
BRAIDWOOD STATION 20							
EXELON NUCLEAR CORP.							
LR-BRW-M-48				SHEET 6A		0	





- INPUTS TO THIS SUMP INCLUDE:
- MISCELLANEOUS AUXILIARY BUILDING VENTS, DRAINS, FLOOR DRAINS, AND FILTERS
  - LETDOWN CHILLER HEAT EXCHANGER CHILLER SURGE DRAINS
  - MODERATING HEAT EXCHANGER DRAIN LINES
  - RESIDUAL HEAT REMOVAL PUMP DRAIN LINES
  - CONTAINMENT SPRAY PUMP DRAIN LINES
  - AUXILIARY BUILDING EQUIPMENT DRAIN TANK PUMP DRAIN LINES
  - RHR HEAT REMOVAL PUMP, CONTAINMENT SPRAY PUMP, SAFETY INJECTION PUMP, AND CHARGING PUMP CUBICLE COOLER DRAINS
  - DIESEL FUEL OIL STORAGE TANK DRAIN LINES AND TRANSFER PUMP BED PLATE DRAIN LINES
  - COMPONENT COOLING SURGE TANK, HEAT EXCHANGER, AND PUMP DRAINS
  - CONTROL ROOM HVAC COOLERS DRAINS
  - AUXILIARY BUILDING FLOOR DRAIN SUMP PUMP DRAINS
  - AUXILIARY BUILDING FLOOR DRAIN TANK DRAINS
  - SPRAY ADDITIVE TANK (ISOLATED FROM PUMP)
  - REFUELING WATER PURIFICATION PUMPS DRAINS
  - CHEMICAL MIXING TANK DRAINS
  - STEAM GENERATOR BLOWDOWN CONDENSER AND SAMPLE PANEL DRAINS
  - PRIMARY CONTAINMENT REFRIGERATION, CONDENSER, CHILLED WATER TANKS AND PUMP DRAINS
  - BORON THERMAL REGENERATION CHILLERS
  - RECYCLE HOLDUP TANKS AND EVAPORATOR FEED PUMPS



- INPUTS TO THIS SUMP INCLUDE:
- MISCELLANEOUS AUXILIARY BUILDING VENTS, DRAINS, FLOOR DRAINS, AND FILTERS
  - LETDOWN CHILLER HEAT EXCHANGER CHILLER SURGE DRAINS
  - MODERATING HEAT EXCHANGER DRAIN LINES
  - RESIDUAL HEAT REMOVAL PUMP DRAIN LINES
  - CONTAINMENT SPRAY PUMP DRAIN LINES
  - AUXILIARY BUILDING EQUIPMENT DRAIN TANK PUMP DRAIN LINES
  - RHR HEAT REMOVAL PUMP, CONTAINMENT SPRAY PUMP, SAFETY INJECTION PUMP, AND CHARGING PUMP CUBICLE COOLER DRAINS
  - DIESEL FUEL OIL STORAGE TANK DRAIN LINES AND TRANSFER PUMP BED PLATE DRAIN LINES
  - COMPONENT COOLING SURGE TANK, HEAT EXCHANGER, AND PUMP DRAINS
  - CONTROL ROOM HVAC COOLERS DRAINS
  - BLOWDOWN CONDENSER DRAINS
  - AUXILIARY BUILDING FLOOR DRAIN SUMP PUMP DRAINS
  - AUXILIARY BUILDING FLOOR DRAIN TANK DRAINS
  - PRIMARY WATER MAKE-UP PUMP DRAINS
  - SPRAY ADDITIVE TANK (ISOLATED FROM PUMP)
  - REFUELING WATER PURIFICATION PUMP DRAINS
  - CHEMICAL DRAIN TANK AND PUMP DRAINS
  - REGENERATION WASTE DRAIN TANK AND PUMP DRAINS
  - STEAM GENERATOR BLOWDOWN CONDENSER AND SAMPLE PANEL DRAINS
  - PRIMARY CONTAINMENT REFRIGERATION, CONDENSER, CHILLED WATER TANKS AND PUMP DRAINS
  - AUXILIARY BUILDING BORATED EQUIPMENT DRAIN TANKS PUMP DRAINS
  - DECONTAMINATION FACILITY DRAINS
  - CONTROL ROOM CHILLED WATER PUMP DRAINS
  - BORON THERMAL REGENERATION CHILLERS
  - RECYCLE HOLDUP TANKS AND EVAPORATOR FEED PUMPS

- INPUTS TO THIS SUMP INCLUDE:
- MISCELLANEOUS FUEL HANDLING BUILDING VENT, DRAIN, AND FLOOR DRAINS
  - SPENT FUEL POOL PIT HEAT EXCHANGER DRAINS
  - SPENT FUEL POOL PIT PUMP DRAINS
  - SPENT FUEL POOL PIT SKIMMER PUMP DRAIN LINE
  - SPENT FUEL POOL LEAK DETECTION DRAINS

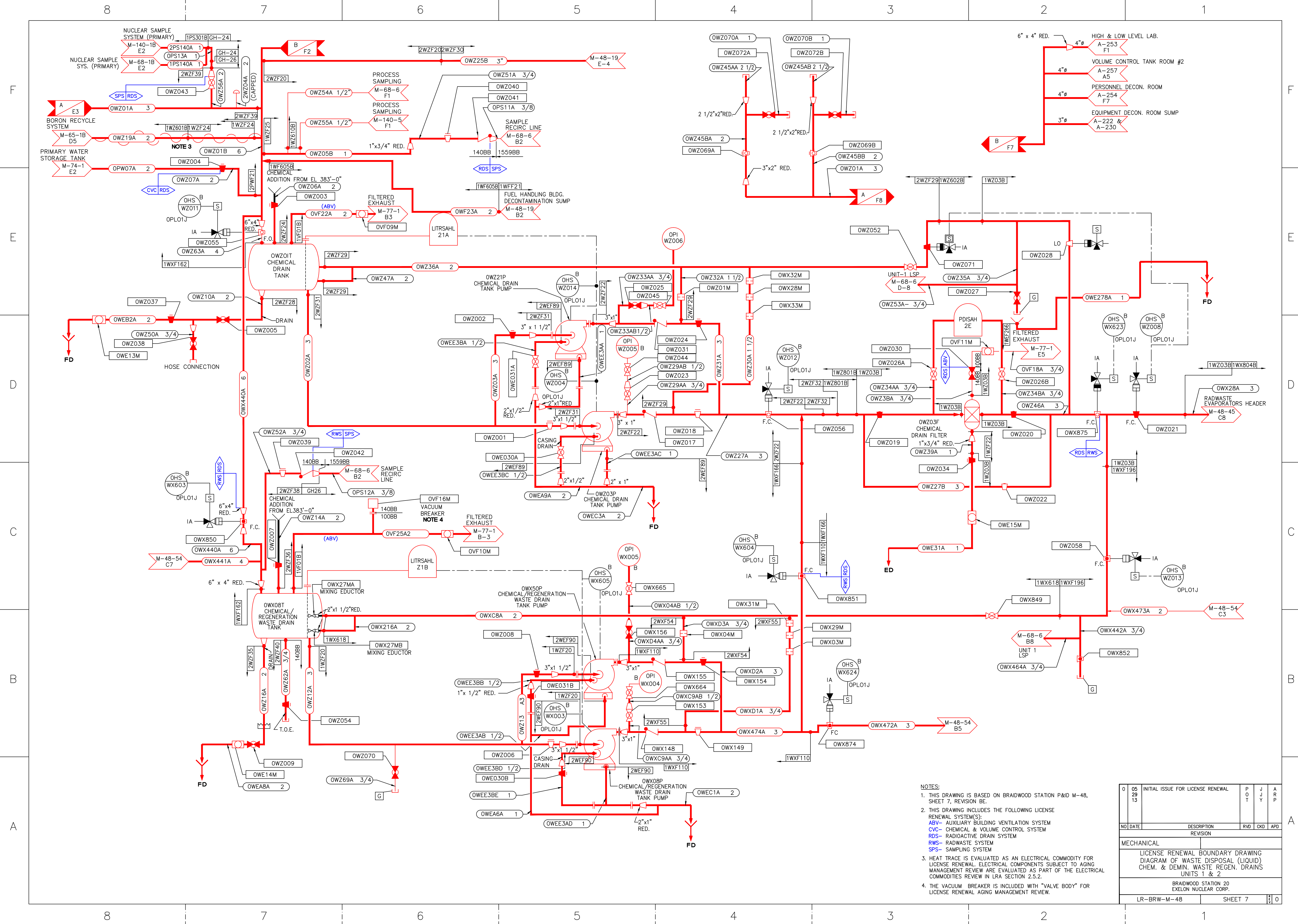
- INPUTS TO THIS SUMP INCLUDE:
- MISCELLANEOUS FUEL HANDLING BUILDING VENT, DRAIN, AND FLOOR DRAINS
  - SPENT FUEL POOL PIT HEAT EXCHANGER DRAINS
  - SPENT FUEL POOL PIT PUMP DRAINS
  - SPENT FUEL POOL LEAK DETECTION DRAINS

NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 6B, REVISION AR.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM
- PIPING AND COMPONENTS, INCLUDING SUMP PUMPS, LOCATED WITHIN THE SUMP ENCLOSURE DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED COMPONENTS AND ARE THEREFORE NOT IN SCOPE. THE ENCLOSURE PREVENTS LEAKAGE OR SPRAY FROM IMPACTING SAFETY-RELATED COMPONENTS. THE SUMPS ARE IN SCOPE AND ARE EVALUATED WITH THE APPLICABLE BUILDING STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P O T	J J Y	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF WASTE DISPOSAL AUXILIARY BUILDING FLOOR DRAINS UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-48	SHEET 6C	0		





NOTES:

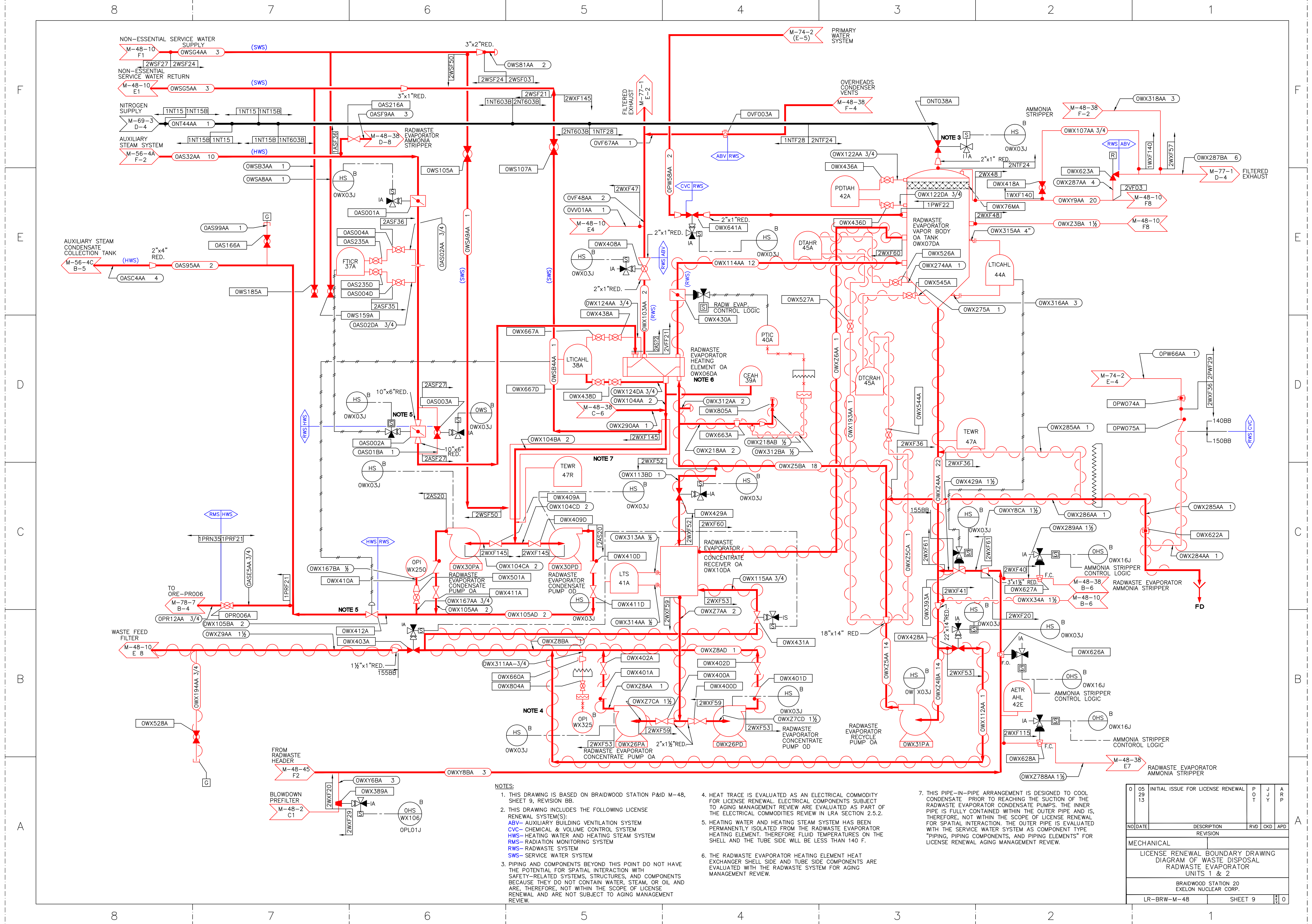
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 7, REVISION BE.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 RWS- RADWASTE SYSTEM  
 SPS- SAMPLING SYSTEM
- HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
- THE VACUUM BREAKER IS INCLUDED WITH "VALVE BODY" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
					O	J	J	P
NO	DATE	DESCRIPTION			RVD	CKD	APD	
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF WASTE DISPOSAL (LIQUID)								
CHEM. & DEMIN. WASTE REGEN. DRAINS								
UNITS 1 & 2								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-48					SHEET 7		0	





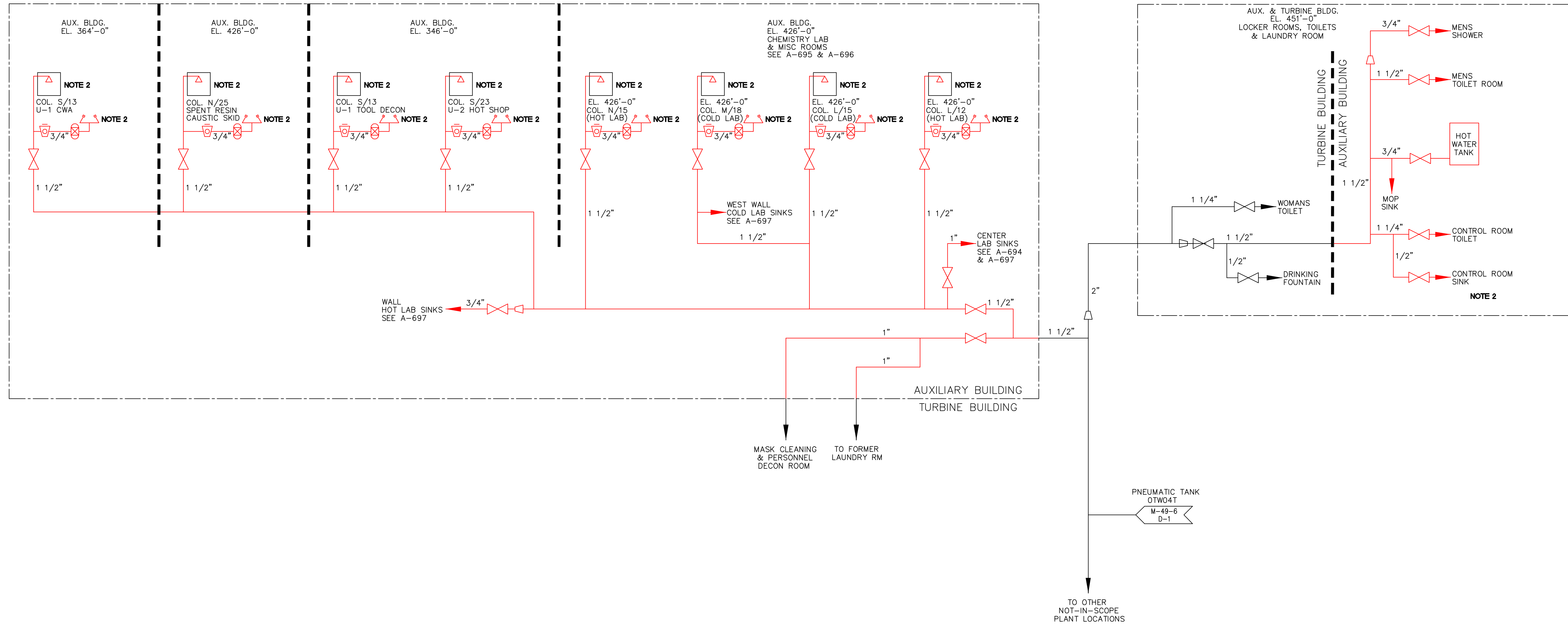




**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-48, SHEET 9, REVISION BB.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 HWS- HEATING WATER AND HEATING STEAM SYSTEM  
 RMS- RADIATION MONITORING SYSTEM  
 RWS- RADWASTE SYSTEM  
 SWS- SERVICE WATER SYSTEM
- PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
- HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
- HEATING WATER AND HEATING STEAM SYSTEM HAS BEEN PERMANENTLY ISOLATED FROM THE RADWASTE EVAPORATOR HEATING ELEMENT. THEREFORE FLUID TEMPERATURES ON THE SHELL AND THE TUBE SIDE WILL BE LESS THAN 140 F.
- THE RADWASTE EVAPORATOR HEATING ELEMENT HEAT EXCHANGER SHELL SIDE AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW.
- THIS PIPE-IN-PIPE ARRANGEMENT IS DESIGNED TO COOL CONDENSATE PRIOR TO REACHING THE SUCTION OF THE RADWASTE EVAPORATOR CONDENSATE PUMPS. THE INNER PIPE IS FULLY CONTAINED WITHIN THE OUTER PIPE AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL FOR SPATIAL INTERACTION. THE OUTER PIPE IS EVALUATED WITH THE SERVICE WATER SYSTEM AS COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

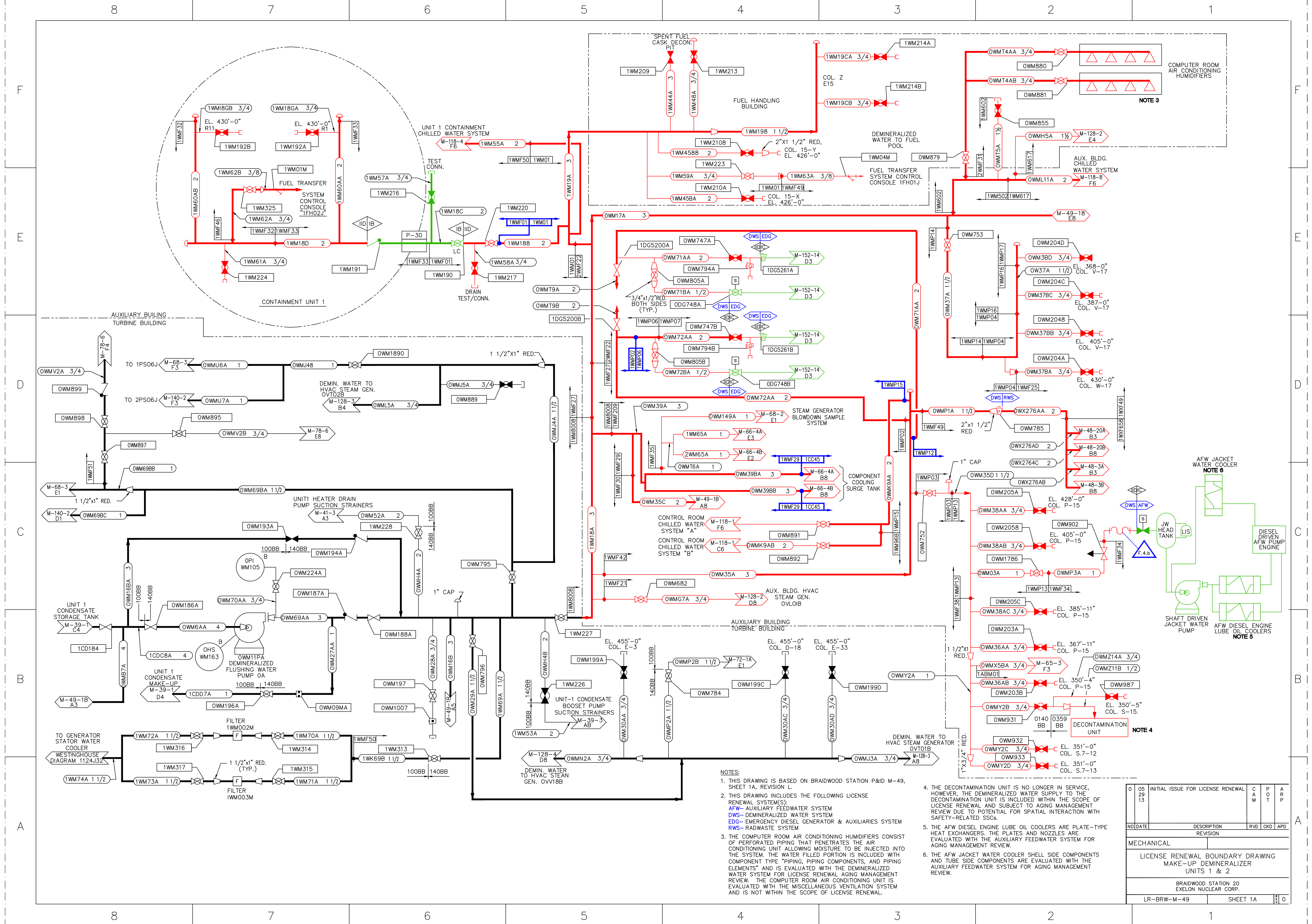
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
1	29		O	J	R
2	13		T	J	P
NO DATE DESCRIPTION RVD CKD APD					
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF WASTE DISPOSAL					
RADWASTE EVAPORATOR					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-48 SHEET 9					



**NOTES:**  
 1. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 FRW- FRESH WATER SYSTEM  
 2. MISCELLANEOUS PLUMBING FIXTURES, SUCH AS EYEWASH STATIONS, EMERGENCY SHOWERS, SINKS, TUBS, AND TOILETS, DO NOT HAVE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEM STRUCTURE COMPONENTS AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	A J F	C A M	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF POTABLE WATER (TW) UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-49	SHEET 10	0		





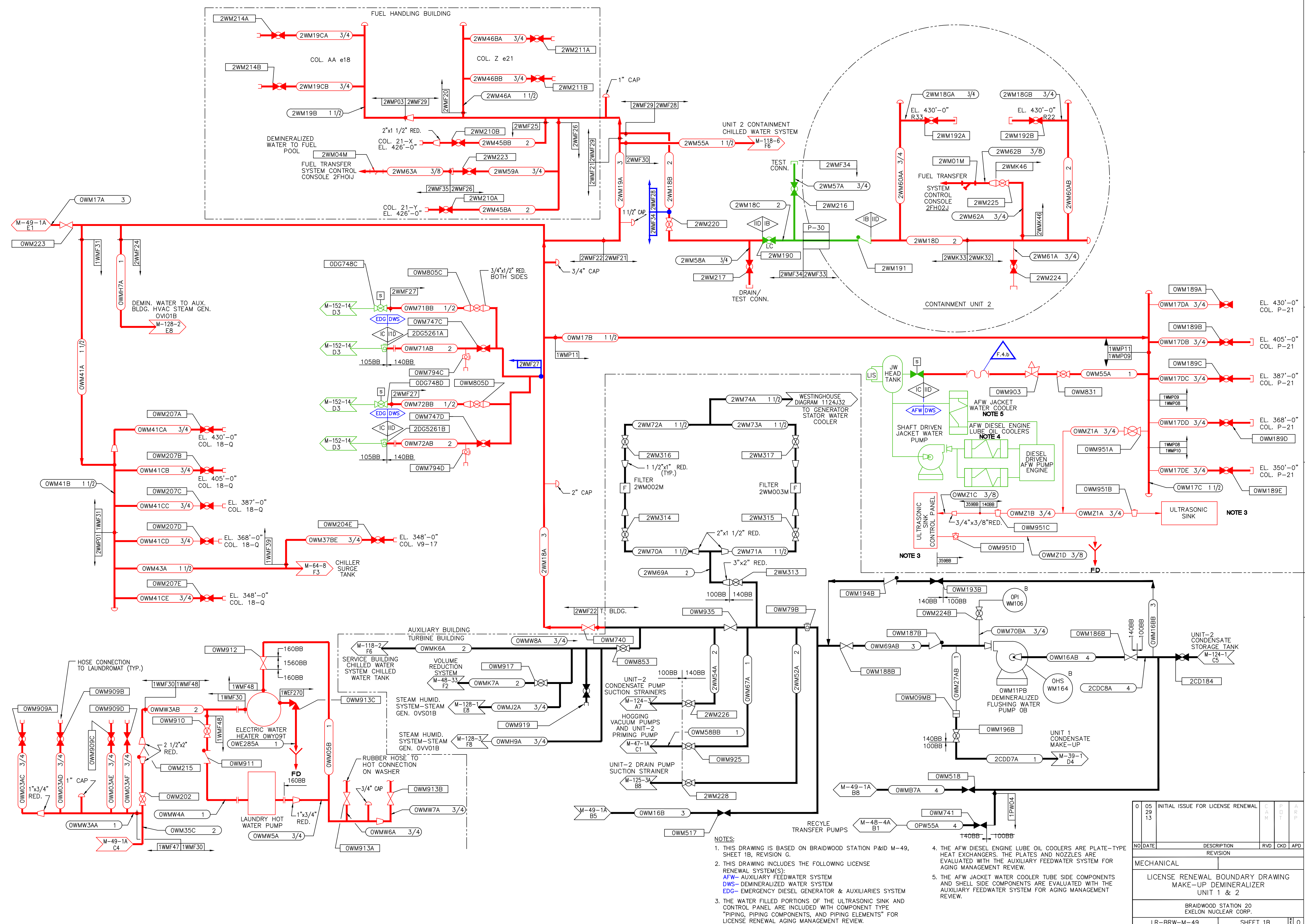
**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-49, SHEET 1A, REVISION L.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 AFW- AUXILIARY FEEDWATER SYSTEM  
 DWS- DEMINERALIZED WATER SYSTEM  
 EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM  
 RWS- RADWASTE SYSTEM
- THE COMPUTER ROOM AIR CONDITIONING HUMIDIFIERS CONSIST OF PERFORATED PIPING THAT PENETRATES THE AIR CONDITIONING UNIT ALLOWING MOISTURE TO BE INJECTED INTO THE SYSTEM. THE WATER FILLED PORTION IS INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" AND IS EVALUATED WITH THE DEMINERALIZED WATER SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW. THE COMPUTER ROOM AIR CONDITIONING UNIT IS EVALUATED WITH THE MISCELLANEOUS VENTILATION SYSTEM AND IS NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

- THE DECONTAMINATION UNIT IS NO LONGER IN SERVICE, HOWEVER, THE DEMINERALIZED WATER SUPPLY TO THE DECONTAMINATION UNIT IS INCLUDED WITHIN THE SCOPE OF LICENSE RENEWAL AND SUBJECT TO AGING MANAGEMENT REVIEW DUE TO POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SSCs.
- THE AFW DIESEL ENGINE LUBE OIL COOLERS ARE PLATE-TYPE HEAT EXCHANGERS. THE PLATES AND NOZZLES ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.
- THE AFW JACKET WATER COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	A	P	A
13	29		M	M	O	R
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING MAKE-UP DEMINERALIZER UNITS 1 & 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-49			SHEET 1A		0	





- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-49, SHEET 1B, REVISION G.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 AFW- AUXILIARY FEEDWATER SYSTEM  
 DWS- DEMINERALIZED WATER SYSTEM  
 EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM
  - THE WATER FILLED PORTIONS OF THE ULTRASONIC SINK AND CONTROL PANEL ARE INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE AFW DIESEL ENGINE LUBE OIL COOLERS ARE PLATE-TYPE HEAT EXCHANGERS. THE PLATES AND NOZZLES ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE AFW JACKET WATER COOLER TUBE SIDE COMPONENTS AND SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	CAM	PTD	TRB
NO/DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING MAKE-UP DEMINERALIZER UNIT 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-49		SHEET 1B		0



8

7

6

5

4

3

2

1

F

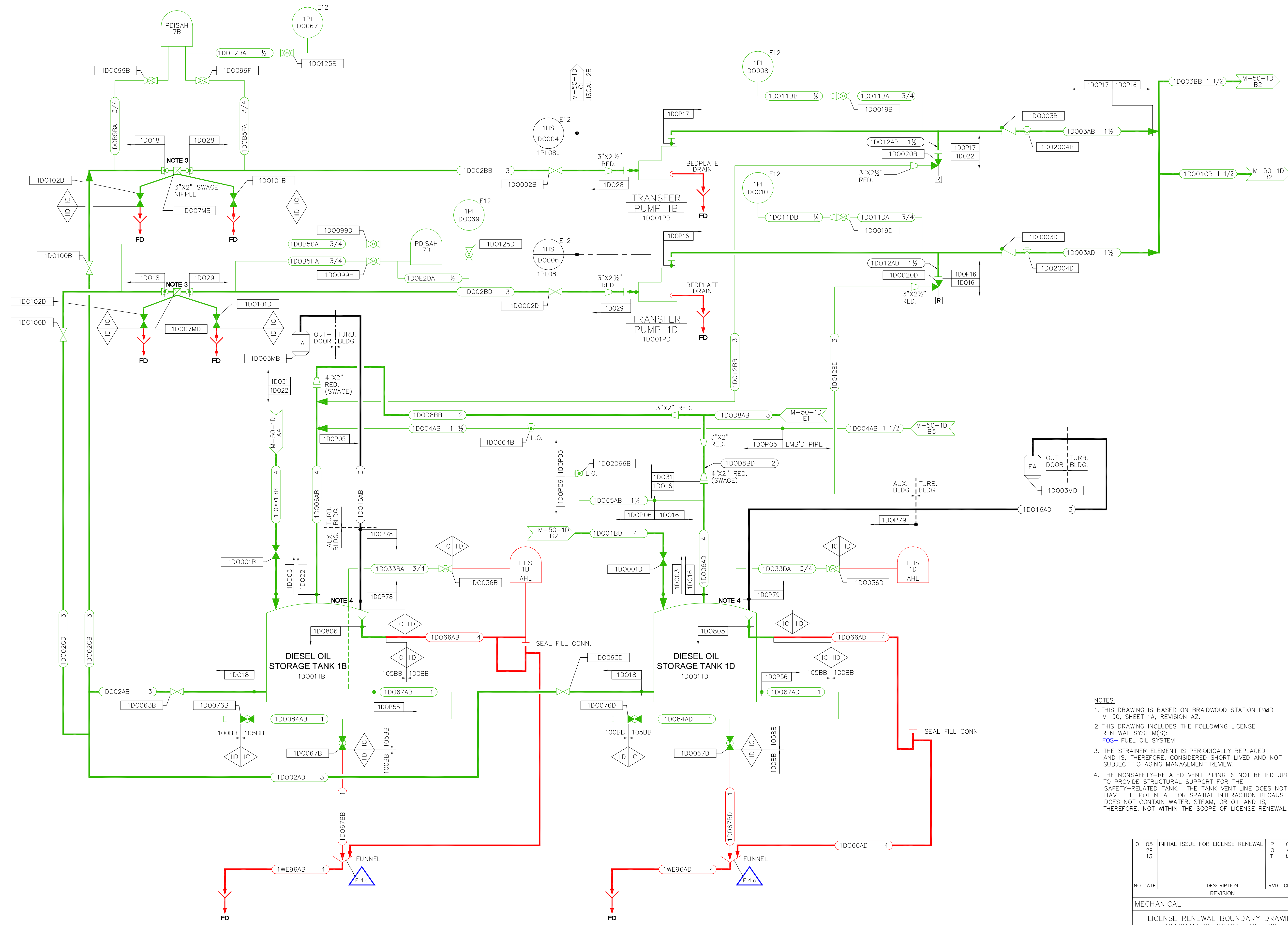
E

D

C

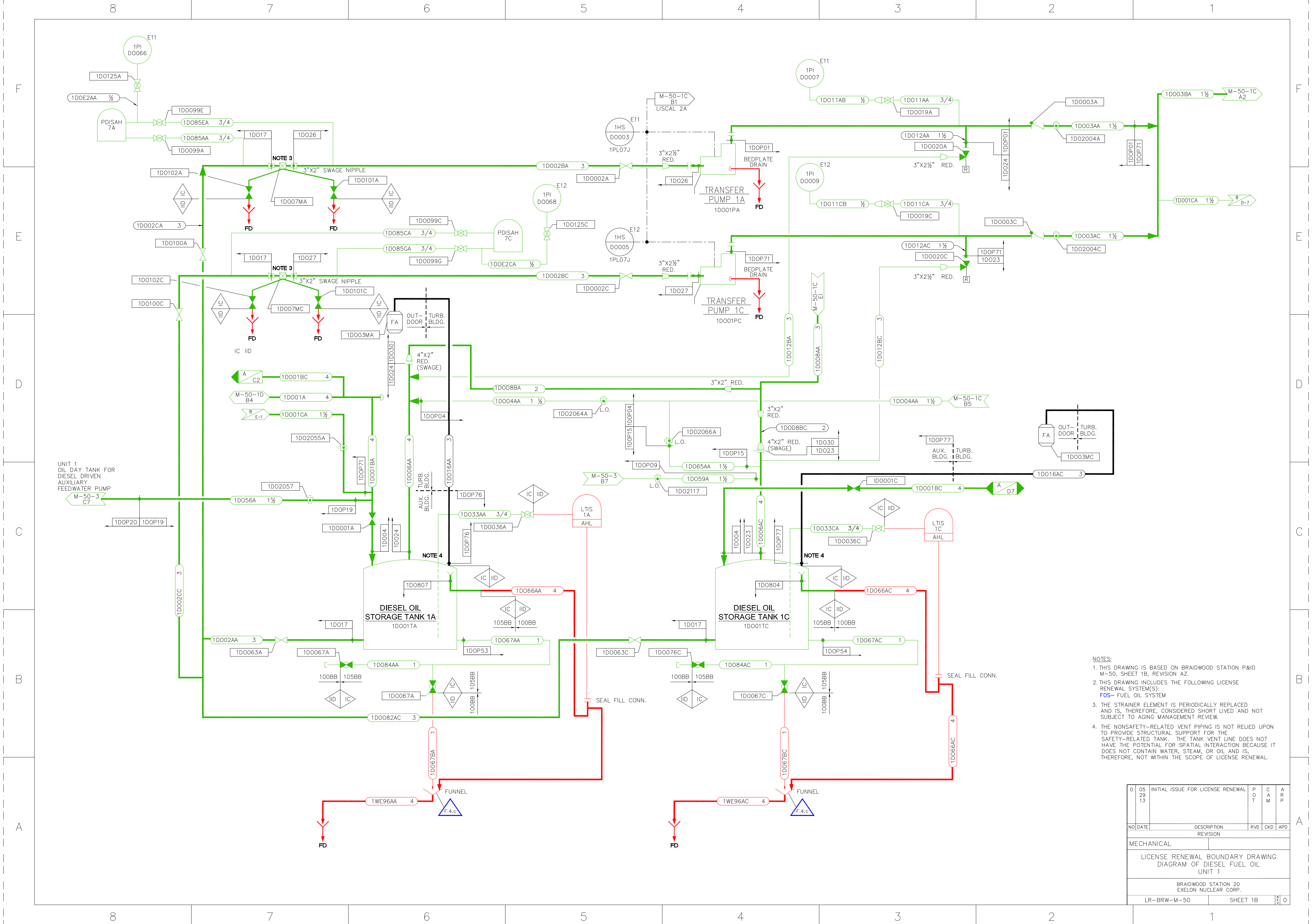
B

A



- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-50, SHEET 1A, REVISION AZ.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FOS- FUEL OIL SYSTEM
  3. THE STRAINER ELEMENT IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  4. THE NONSAFETY-RELATED VENT PIPING IS NOT RELIED UPON TO PROVIDE STRUCTURAL SUPPORT FOR THE SAFETY-RELATED TANK. THE TANK VENT LINE DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
29	13		O	A	M	P
13			T			
NO DATE		DESCRIPTION	RVD	CKD	APD	
REVISION						
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF DIESEL FUEL OIL UNIT 1						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-50		SHEET 1A	0			



UNIT 1  
OIL DAY TANK FOR  
DIESEL DRIVEN  
AUXILIARY  
FEEDWATER PUMP

NOTE 3

NOTE 3

NOTE 4

NOTE 4

- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-50, SHEET 1B, REVISION AZ.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FOS- FUEL OIL SYSTEM
  3. THE STRAINER ELEMENT IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  4. THE NONSAFETY-RELATED VENT PIPING IS NOT RELIED UPON TO PROVIDE STRUCTURAL SUPPORT FOR THE SAFETY-RELATED TANK. THE TANK VENT LINE DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
29		O	A	M	P
13		T			
NO DATE	DESCRIPTION	RVD	CKD	APD	
	REVISION				
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF DIESEL FUEL OIL UNIT 1					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-50	SHEET 1B				0



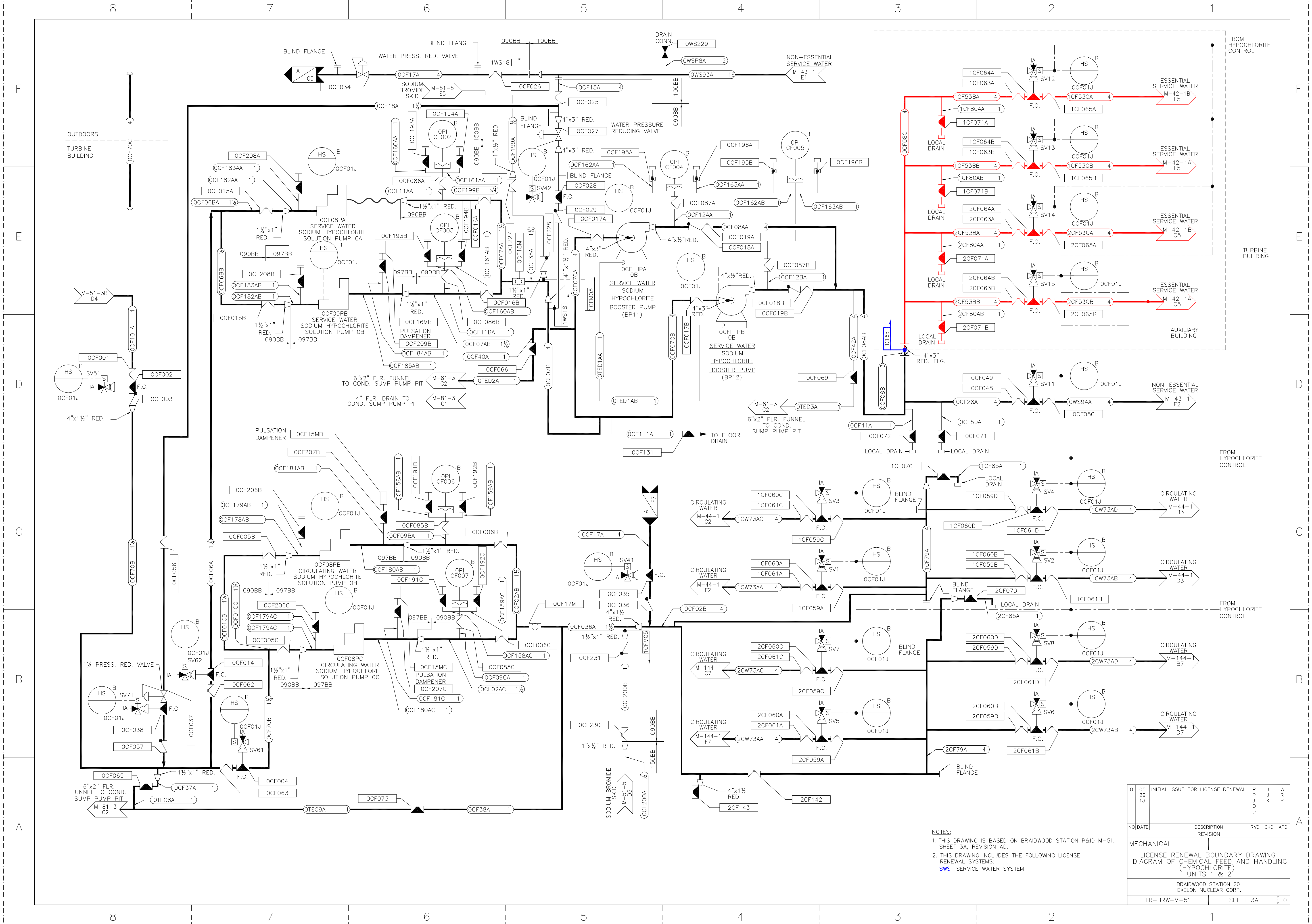










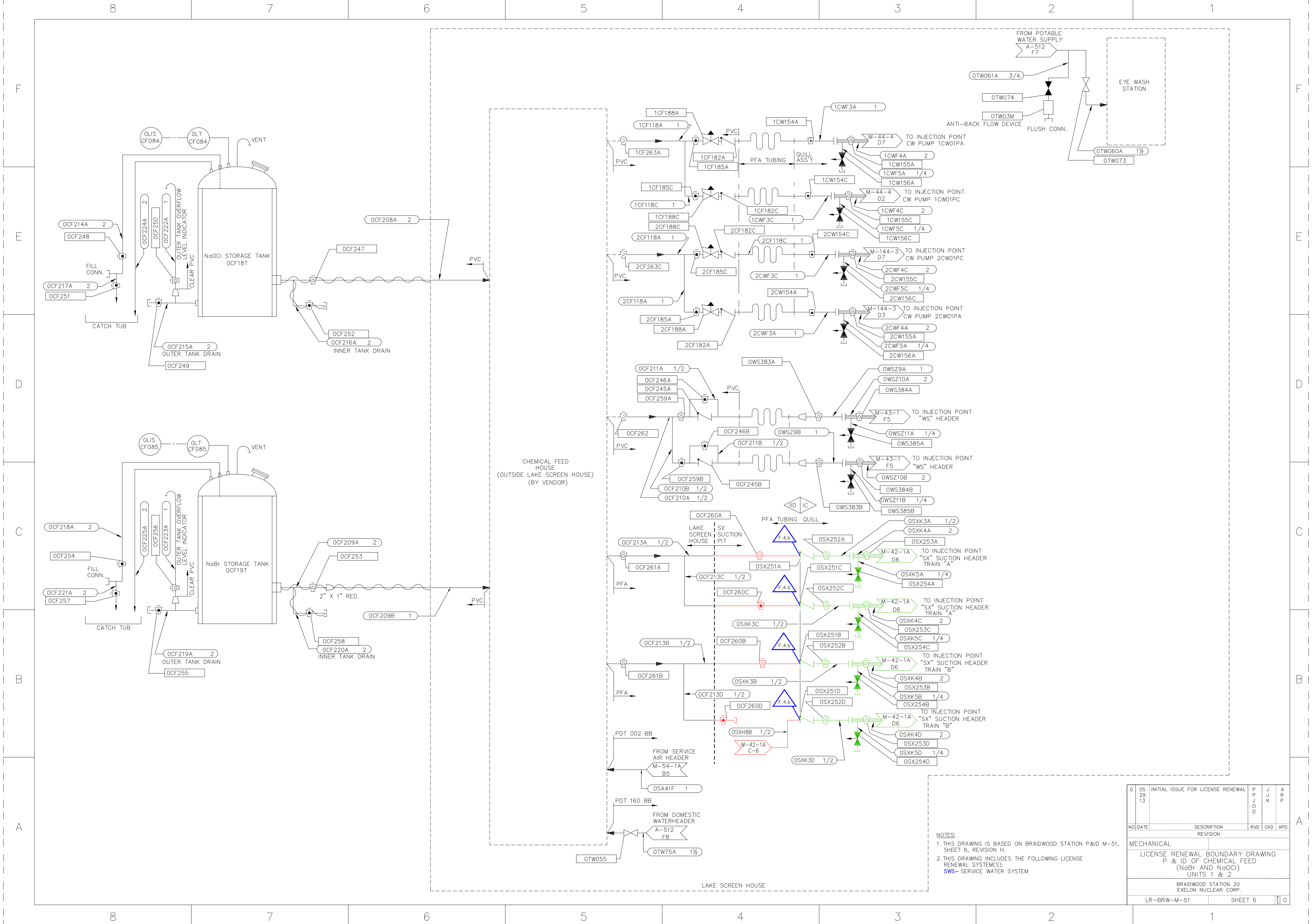


NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-51, SHEET 3A, REVISION AD.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
 SWS- SERVICE WATER SYSTEM

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
				P	J	R
				J	K	P
				O		
NO	DATE		DESCRIPTION	RVD	CKD	APD
			REVISION			
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEMICAL FEED AND HANDLING (HYPOCHLORITE) UNITS 1 & 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-51			SHEET 3A			0



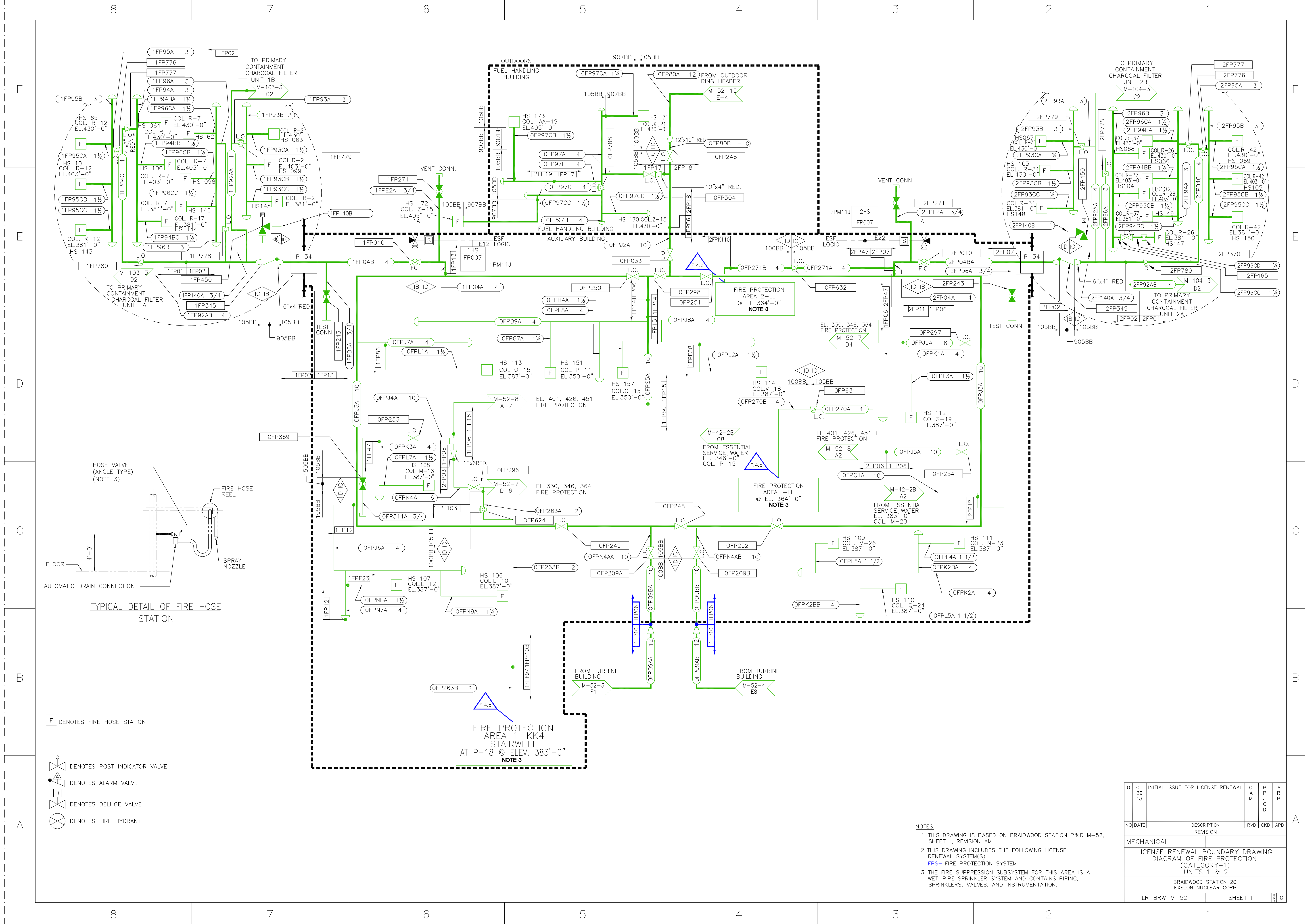




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-51, SHEET 6, REVISION H.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 SWS- SERVICE WATER SYSTEM

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J J O D	J K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING P & ID OF CHEMICAL FEED (NaBr AND NaOCI) UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-51	SHEET 6	0		





TYPICAL DETAIL OF FIRE HOSE STATION

- F DENOTES FIRE HOSE STATION
- ⊗ DENOTES POST INDICATOR VALVE
- ⊕ DENOTES ALARM VALVE
- ⊗ DENOTES DELUGE VALVE
- ⊗ DENOTES FIRE HYDRANT

FIRE PROTECTION AREA 1-KK4 STAIRWELL AT P-18 @ ELEV. 383'-0" NOTE 3

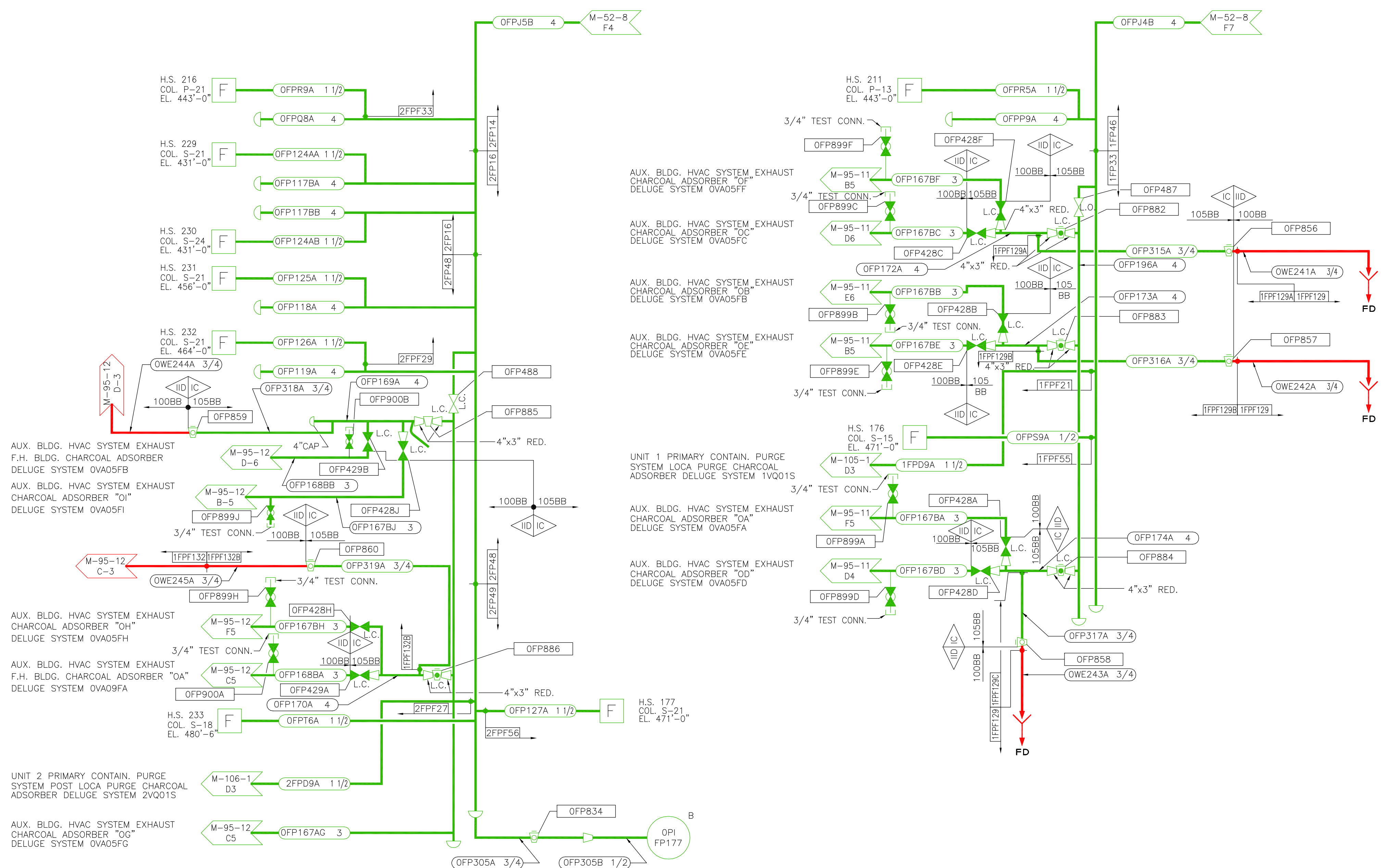
- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-52, SHEET 1, REVISION AM.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS- FIRE PROTECTION SYSTEM
  - THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A WET-PIPE SPRINKLER SYSTEM AND CONTAINS PIPING, SPRINKLERS, VALVES, AND INSTRUMENTATION.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	A	P	A
	29					R
	13					P
NO DATE DESCRIPTION RVD CKD APD REVISION						
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF FIRE PROTECTION						
(CATEGORY-1)						
UNITS 1 & 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-52			SHEET 1		0	





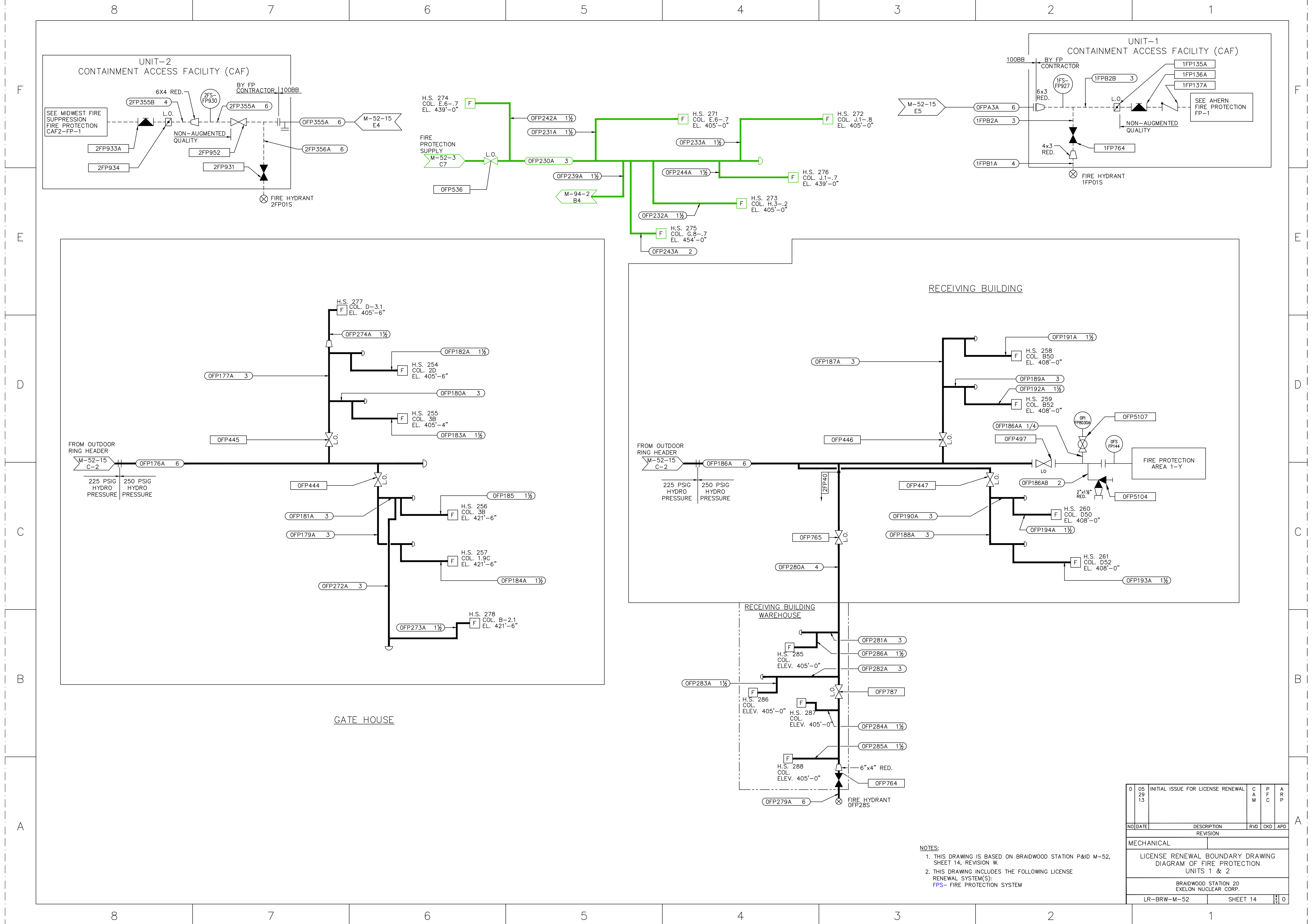
NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-52, SHEET 13, REVISION AC.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
 FPS- FIRE PROTECTION SYSTEM



H.S. 216 COL. P-21 EL. 443'-0" F  
 H.S. 229 COL. S-21 EL. 431'-0" F  
 H.S. 230 COL. S-24 EL. 431'-0" F  
 H.S. 231 COL. S-21 EL. 456'-0" F  
 H.S. 232 COL. S-21 EL. 464'-0" F  
 H.S. 233 COL. S-18 EL. 480'-6" F  
 H.S. 176 COL. S-15 EL. 471'-0" F  
 H.S. 177 COL. S-21 EL. 471'-0" F

AUX. BLDG. HVAC SYSTEM EXHAUST CHARCOAL ADSORBER "OI" DELUGE SYSTEM OVA05FF  
 AUX. BLDG. HVAC SYSTEM EXHAUST CHARCOAL ADSORBER "OC" DELUGE SYSTEM OVA05FC  
 AUX. BLDG. HVAC SYSTEM EXHAUST CHARCOAL ADSORBER "OB" DELUGE SYSTEM OVA05FB  
 AUX. BLDG. HVAC SYSTEM EXHAUST CHARCOAL ADSORBER "OE" DELUGE SYSTEM OVA05FE  
 AUX. BLDG. HVAC SYSTEM EXHAUST CHARCOAL ADSORBER "OF" DELUGE SYSTEM OVA05FH  
 AUX. BLDG. HVAC SYSTEM EXHAUST CHARCOAL ADSORBER "OA" DELUGE SYSTEM OVA05FA  
 AUX. BLDG. HVAC SYSTEM EXHAUST CHARCOAL ADSORBER "OH" DELUGE SYSTEM OVA05FH  
 AUX. BLDG. HVAC SYSTEM EXHAUST CHARCOAL ADSORBER "OA" DELUGE SYSTEM OVA09FA  
 UNIT 1 PRIMARY CONTAIN. PURGE SYSTEM LOCA PURGE CHARCOAL ADSORBER DELUGE SYSTEM 1VQ01S  
 UNIT 2 PRIMARY CONTAIN. PURGE SYSTEM POST LOCA PURGE CHARCOAL ADSORBER DELUGE SYSTEM 2VQ01S  
 AUX. BLDG. HVAC SYSTEM EXHAUST CHARCOAL ADSORBER "OC" DELUGE SYSTEM OVA05FG

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	CAM	PF	ARP
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FIRE PROTECTION AUXILIARY BUILDING UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-52	SHEET 13	0		

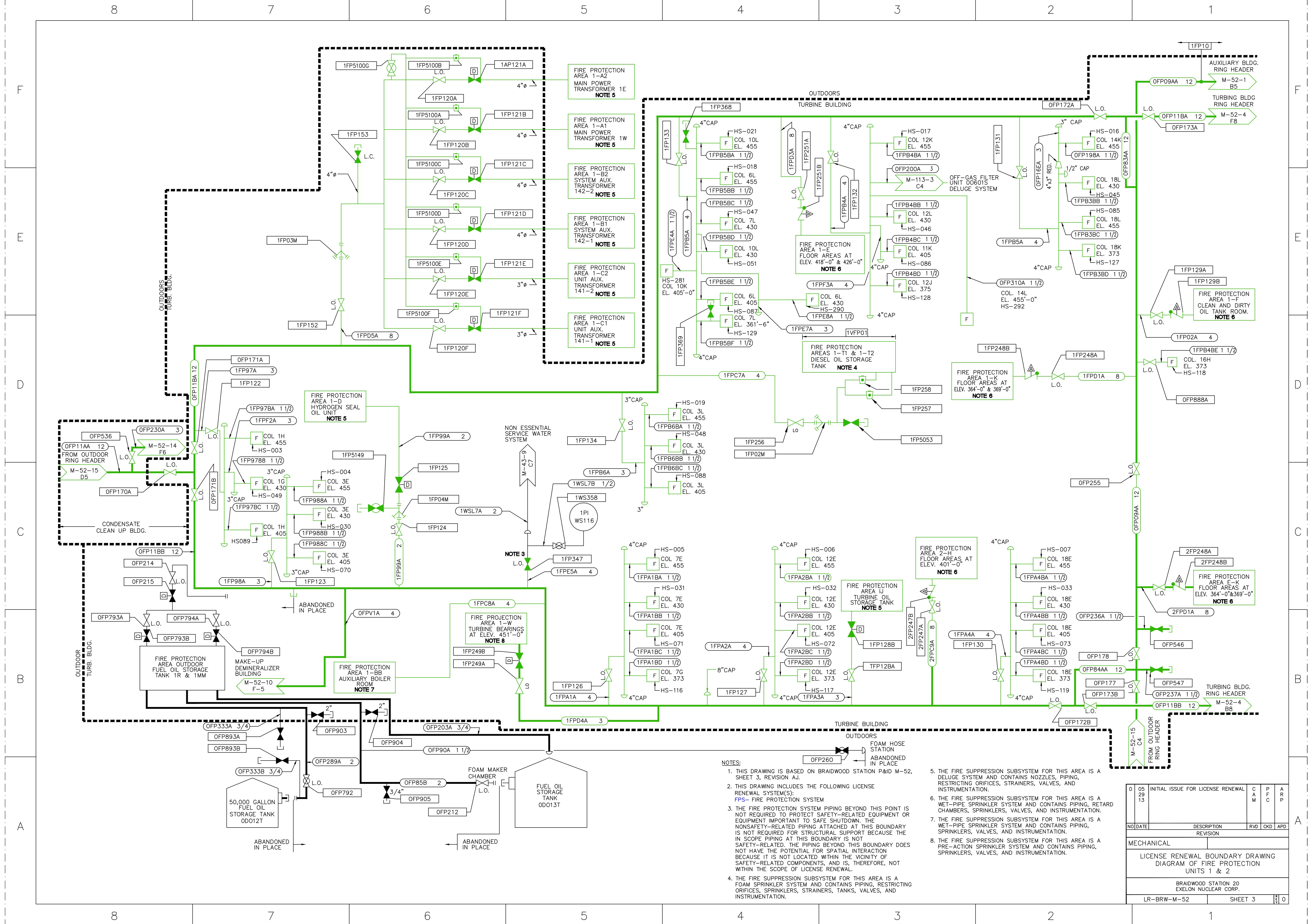


**NOTES:**  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-52, SHEET 14, REVISION W.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 FPS- FIRE PROTECTION SYSTEM

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	P	A
29	13		A	F	R
13			M	C	P
NO/DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FIRE PROTECTION UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-52		SHEET 14	0		



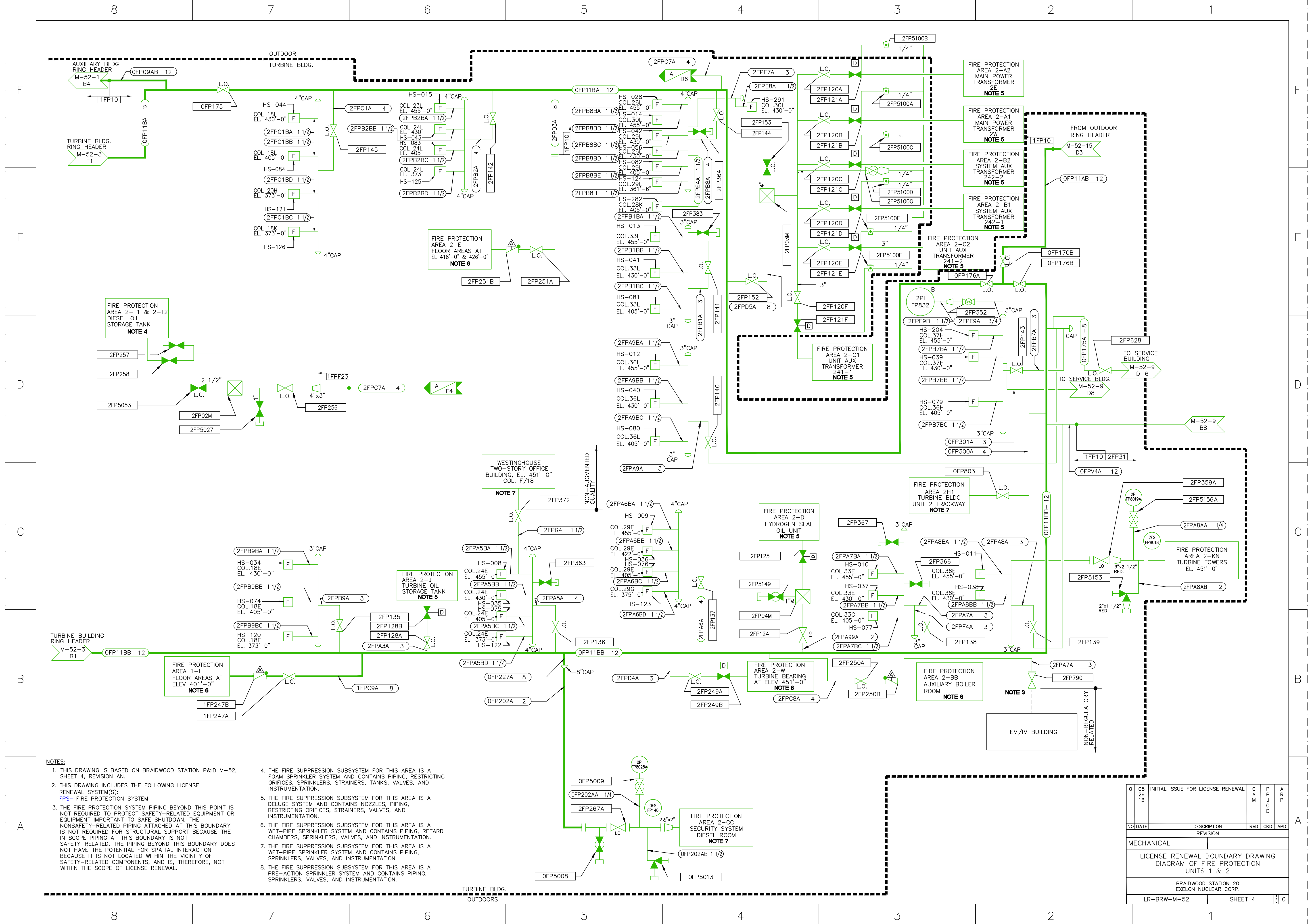




- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-52, SHEET 3, REVISION A.J.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS- FIRE PROTECTION SYSTEM
  - THE FIRE PROTECTION SYSTEM PIPING BEYOND THIS POINT IS NOT REQUIRED TO PROTECT SAFETY-RELATED EQUIPMENT OR EQUIPMENT IMPORTANT TO SAFE SHUTDOWN. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT IS NOT LOCATED WITHIN THE VICINITY OF SAFETY-RELATED COMPONENTS, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  - THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A FOAM SPRINKLER SYSTEM AND CONTAINS PIPING, RESTRICTING ORIFICES, SPRINKLERS, STRAINERS, TANKS, VALVES, AND INSTRUMENTATION.
  - THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A DELUGE SYSTEM AND CONTAINS NOZZLES, PIPING, RESTRICTING ORIFICES, STRAINERS, VALVES, AND INSTRUMENTATION.
  - THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A WET-PIPE SPRINKLER SYSTEM AND CONTAINS PIPING, RETARD CHAMBERS, SPRINKLERS, VALVES, AND INSTRUMENTATION.
  - THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A WET-PIPE SPRINKLER SYSTEM AND CONTAINS PIPING, SPRINKLERS, VALVES, AND INSTRUMENTATION.
  - THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A PRE-ACTION SPRINKLER SYSTEM AND CONTAINS PIPING, SPRINKLERS, VALVES, AND INSTRUMENTATION.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	C	A	P	A
NO	DATE			DESCRIPTION	RVD	CKD	APD	
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FIRE PROTECTION UNITS 1 & 2								
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.								
LR-BRW-M-52 SHEET 3 0								



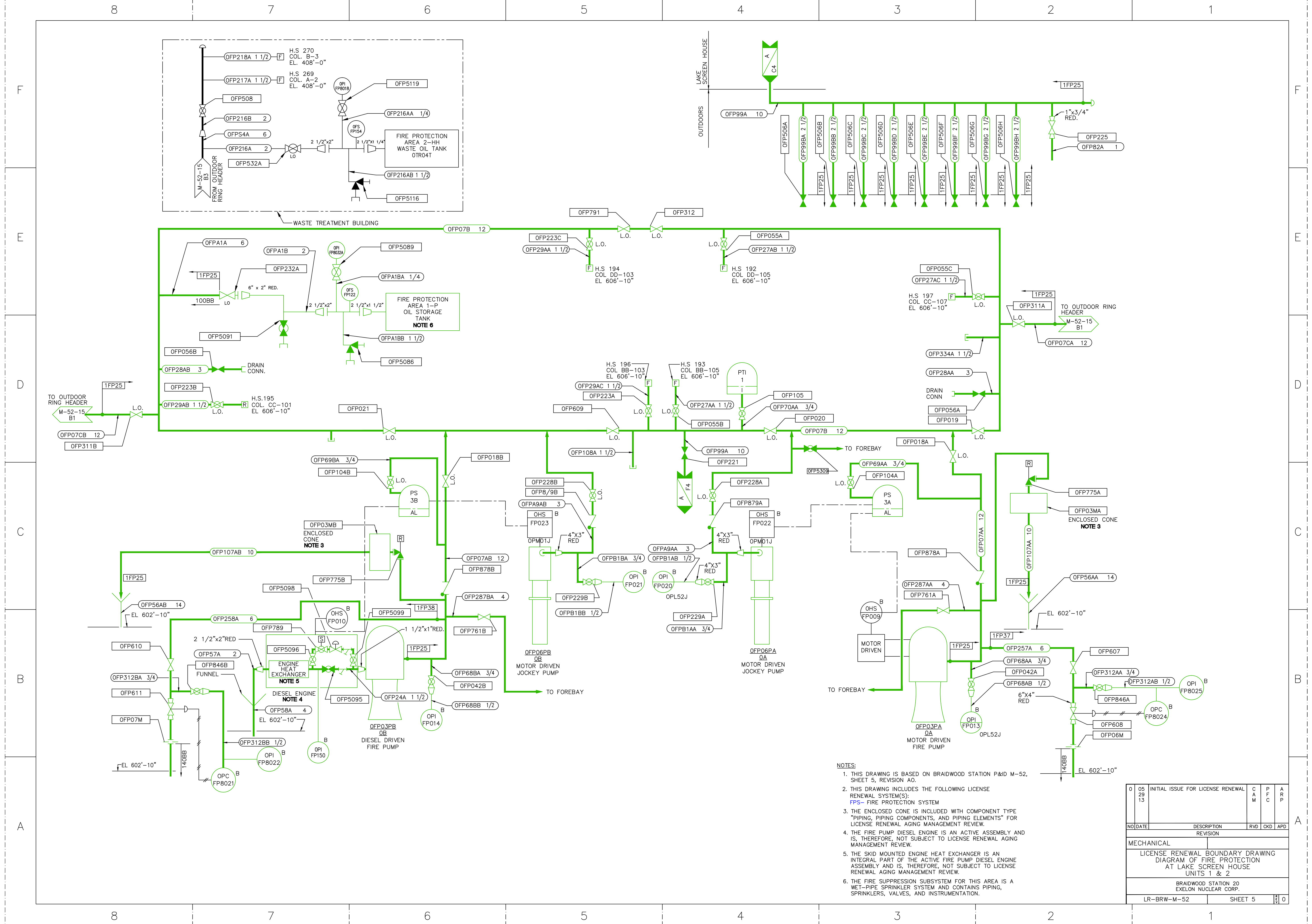


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-52, SHEET 4, REVISION ANI.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS = FIRE PROTECTION SYSTEM
- THE FIRE PROTECTION SYSTEM PIPING BEYOND THIS POINT IS NOT REQUIRED TO PROTECT SAFETY-RELATED EQUIPMENT OR EQUIPMENT IMPORTANT TO SAFE SHUTDOWN. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT IS NOT LOCATED WITHIN THE VICINITY OF SAFETY-RELATED COMPONENTS, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
- THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A FOAM SPRINKLER SYSTEM AND CONTAINS PIPING, RESTRICTING ORIFICES, SPRINKLERS, STRAINERS, TANKS, VALVES, AND INSTRUMENTATION.
- THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A DELUGE SYSTEM AND CONTAINS NOZZLES, PIPING, RESTRICTING ORIFICES, STRAINERS, VALVES, AND INSTRUMENTATION.
- THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A WET-PIPE SPRINKLER SYSTEM AND CONTAINS PIPING, RETARD CHAMBERS, SPRINKLERS, VALVES, AND INSTRUMENTATION.
- THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A WET-PIPE SPRINKLER SYSTEM AND CONTAINS PIPING, SPRINKLERS, VALVES, AND INSTRUMENTATION.
- THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A PRE-ACTION SPRINKLER SYSTEM AND CONTAINS PIPING, SPRINKLERS, VALVES, AND INSTRUMENTATION.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	C	A	P	A	R
NO	DATE	DESCRIPTION	RVD	CKD	APD				
MECHANICAL									
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FIRE PROTECTION UNITS 1 & 2									
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.									
LR-BRW-M-52 SHEET 4 0									

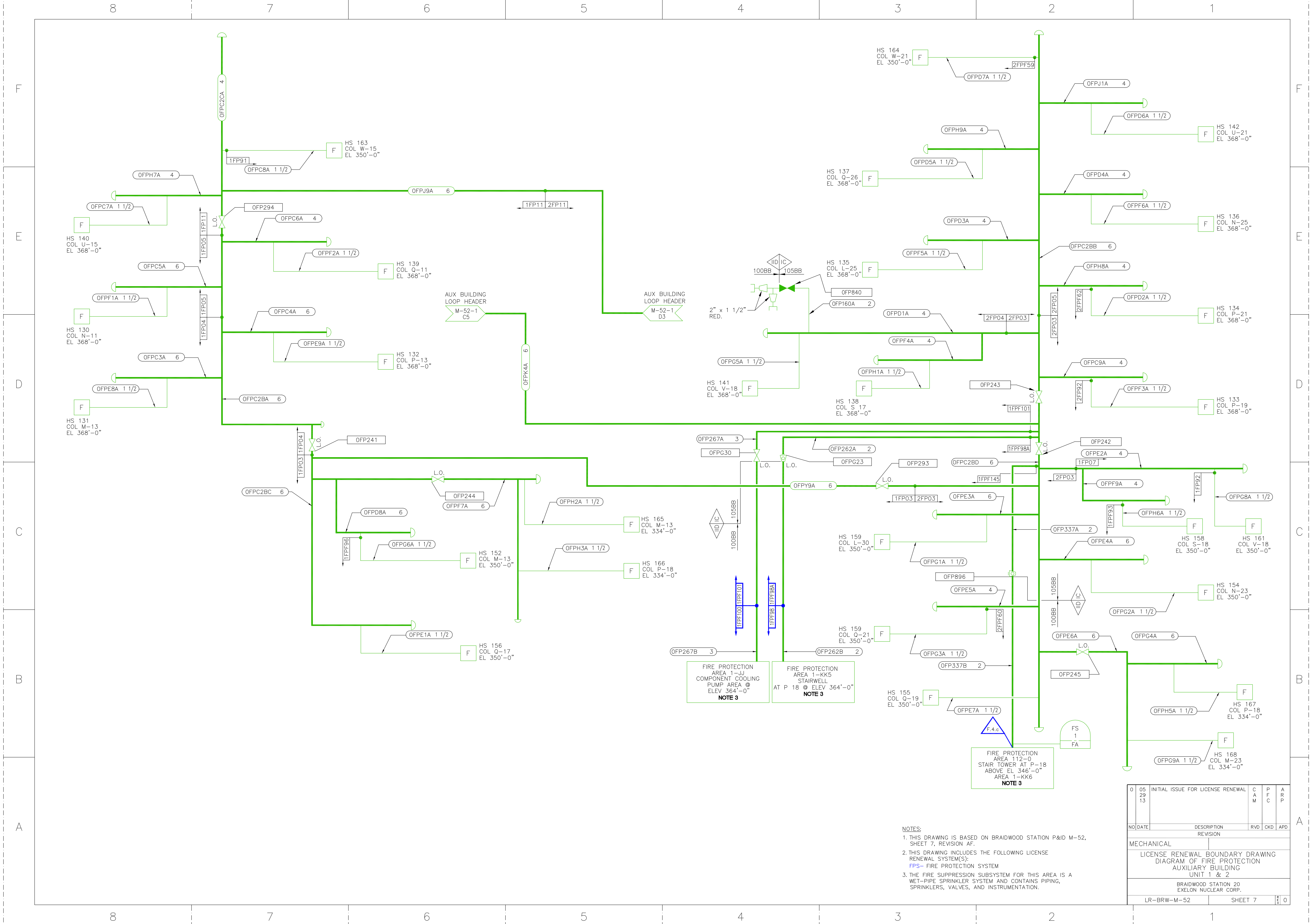




- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-52, SHEET 5, REVISION AO.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS- FIRE PROTECTION SYSTEM
  3. THE ENCLOSED CONE IS INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE FIRE PUMP DIESEL ENGINE IS AN ACTIVE ASSEMBLY AND IS, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  5. THE SKID MOUNTED ENGINE HEAT EXCHANGER IS AN INTEGRAL PART OF THE ACTIVE FIRE PUMP DIESEL ENGINE ASSEMBLY AND IS, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  6. THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A WET-PIPE SPRINKLER SYSTEM AND CONTAINS PIPING, SPRINKLERS, VALVES, AND INSTRUMENTATION.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	A	P	A
29	13		M	F	C	R
13						P
NO	DATE	DESCRIPTION	RVD	CKD	APD	
REVISION						
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FIRE PROTECTION AT LAKE SCREEN HOUSE UNITS 1 & 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-52						SHEET 5
						0





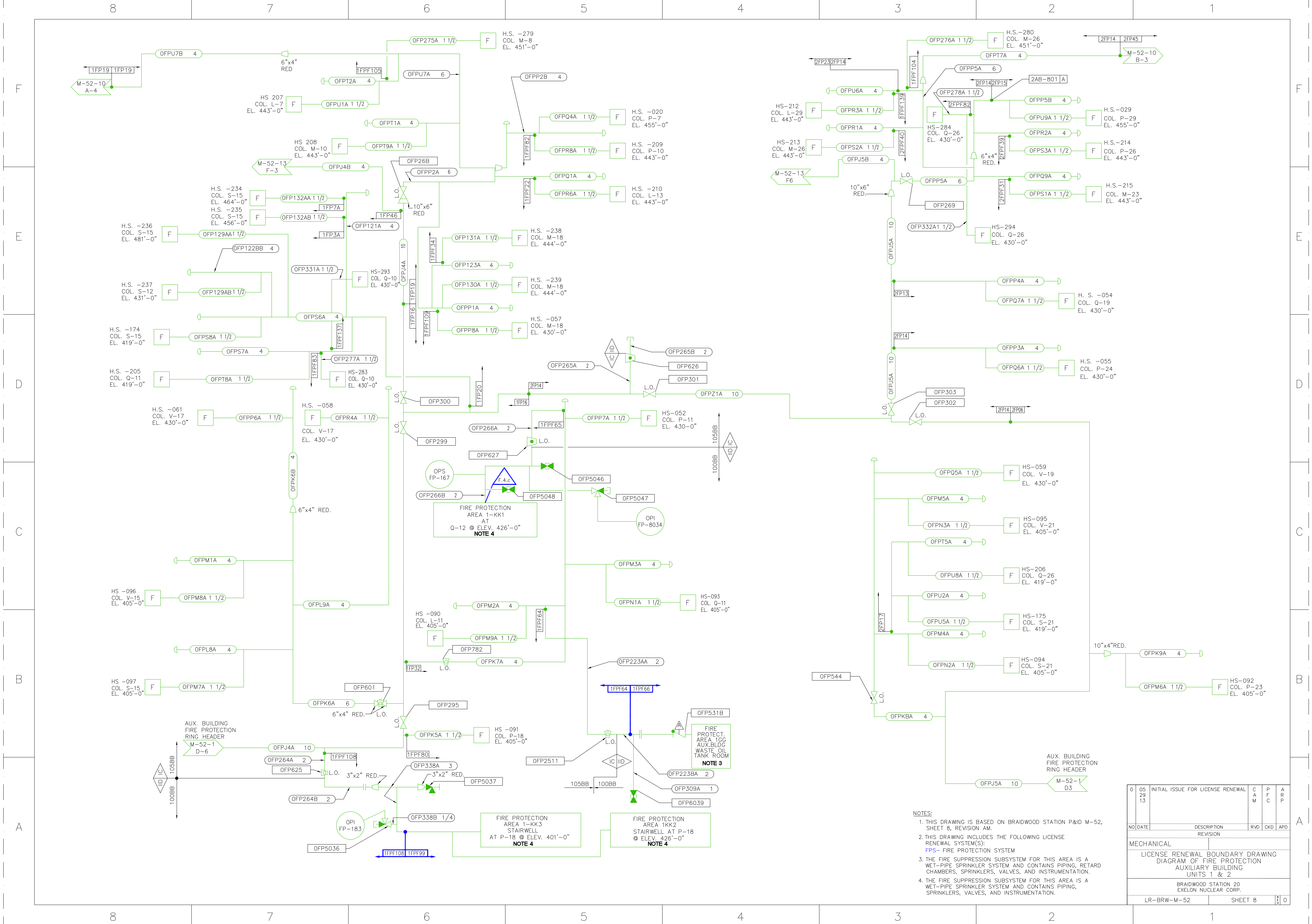
FIRE PROTECTION AREA 1-JJ COMPONENT COOLING PUMP AREA @ ELEV 364'-0"  
NOTE 3

FIRE PROTECTION AREA 1-KK5 STAIRWELL AT P 18 @ ELEV 364'-0"  
NOTE 3

FIRE PROTECTION AREA 112-0 STAIR TOWER AT P-18 ABOVE ELEV 346'-0"  
AREA 1-KK6  
NOTE 3

- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-52, SHEET 7, REVISION AF.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS- FIRE PROTECTION SYSTEM
  - THE FIRE SUPPRESSION SYSTEM FOR THIS AREA IS A WET-PIPE SPRINKLER SYSTEM AND CONTAINS PIPING, SPRINKLERS, VALVES, AND INSTRUMENTATION.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	C A M	P F C	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FIRE PROTECTION AUXILIARY BUILDING UNIT 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-52	SHEET 7	0		



FIRE PROTECTION AREA 1-KK1 AT Q-12 @ ELEV. 426'-0" **NOTE 4**

FIRE PROTECT. AREA 1-KK2 AUX. BLDG WASTE OIL TANK ROOM **NOTE 3**

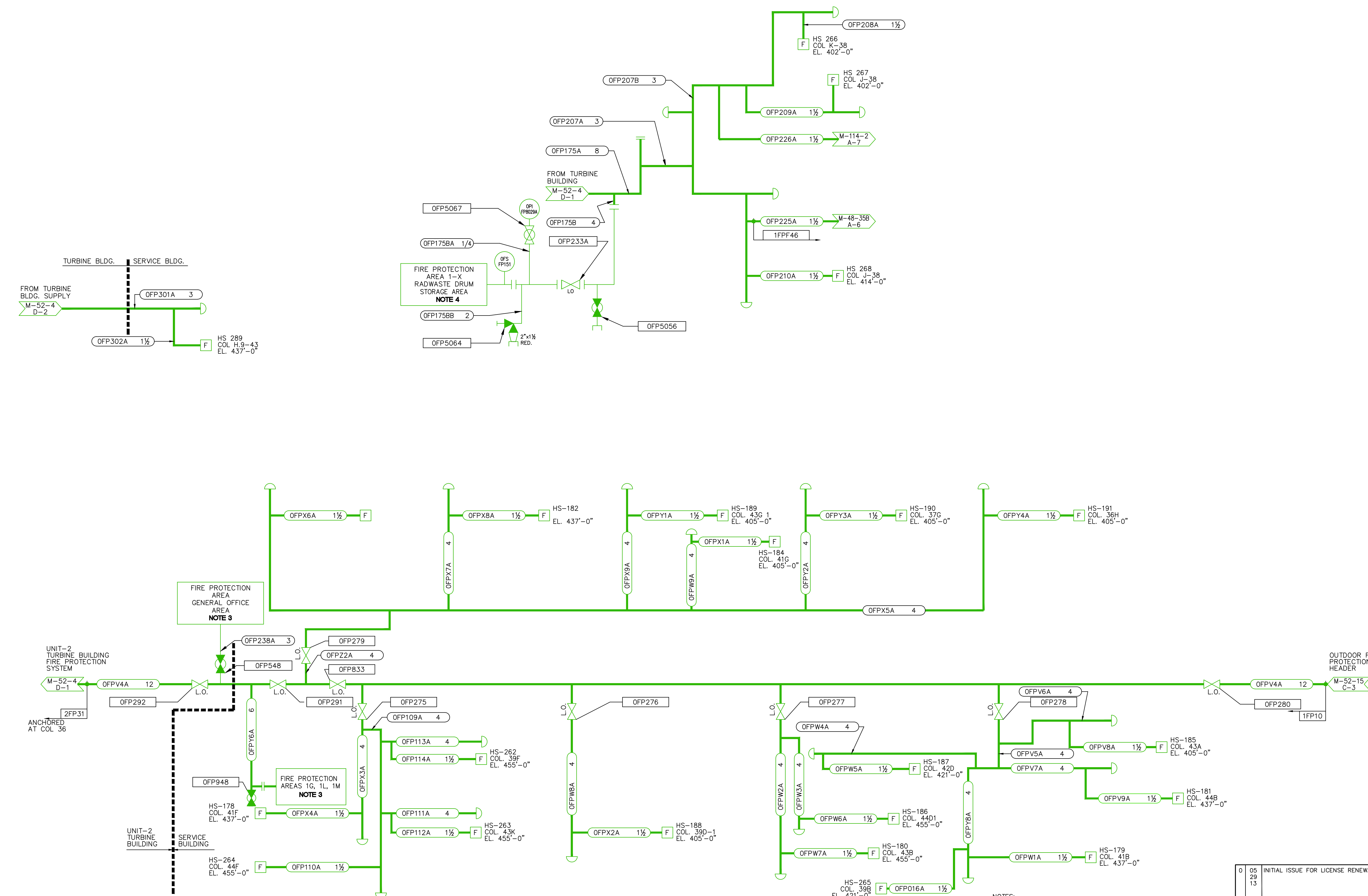
FIRE PROTECTION AREA 1-KK3 STAIRWELL AT P-18 @ ELEV. 401'-0" **NOTE 4**

FIRE PROTECTION AREA 1-KK2 STAIRWELL AT P-18 @ ELEV. 426'-0" **NOTE 4**

- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-52, SHEET 8, REVISION AM.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS- FIRE PROTECTION SYSTEM
  3. THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A WET-PIPE SPRINKLER SYSTEM AND CONTAINS PIPING, RETARD CHAMBERS, SPRINKLERS, VALVES, AND INSTRUMENTATION.
  4. THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A WET-PIPE SPRINKLER SYSTEM AND CONTAINS PIPING, SPRINKLERS, VALVES, AND INSTRUMENTATION.

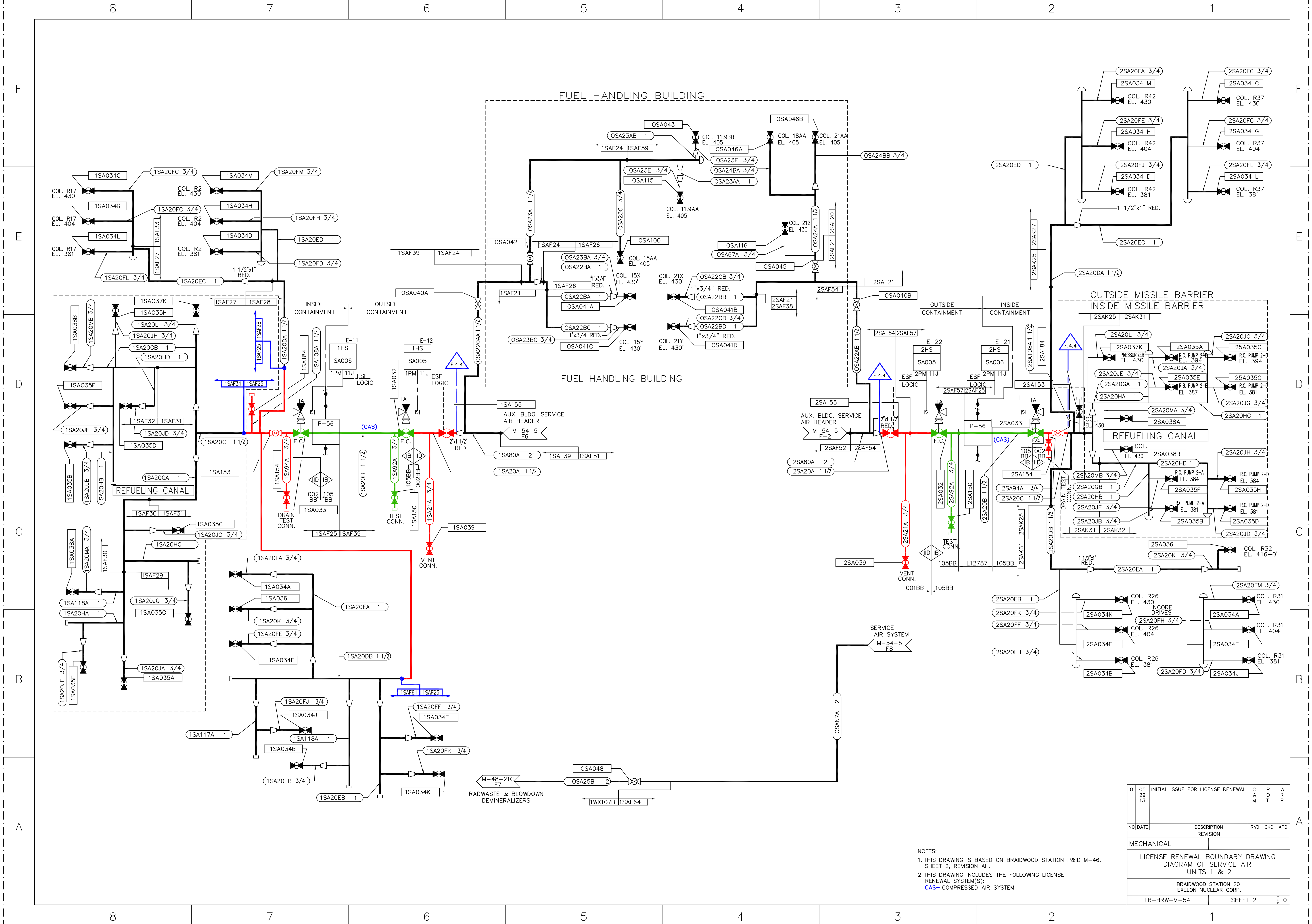
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	P	A
29	13		A	F	R
			M	C	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF FIRE PROTECTION					
AUXILIARY BUILDING					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-52		SHEET 8	0		





- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-52, SHEET 9, REVISION AE.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS- FIRE PROTECTION SYSTEM
  3. THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A WET-PIPE SPRINKLER SYSTEM AND CONTAINS PIPING, RETARD CHAMBERS, SPRINKLERS, VALVES AND INSTRUMENTATION.
  4. THE FIRE SUPPRESSION SUBSYSTEM FOR THIS AREA IS A WET-PIPE SPRINKLER SYSTEM AND CONTAINS PIPING, SPRINKLERS, VALVES AND INSTRUMENTATION.

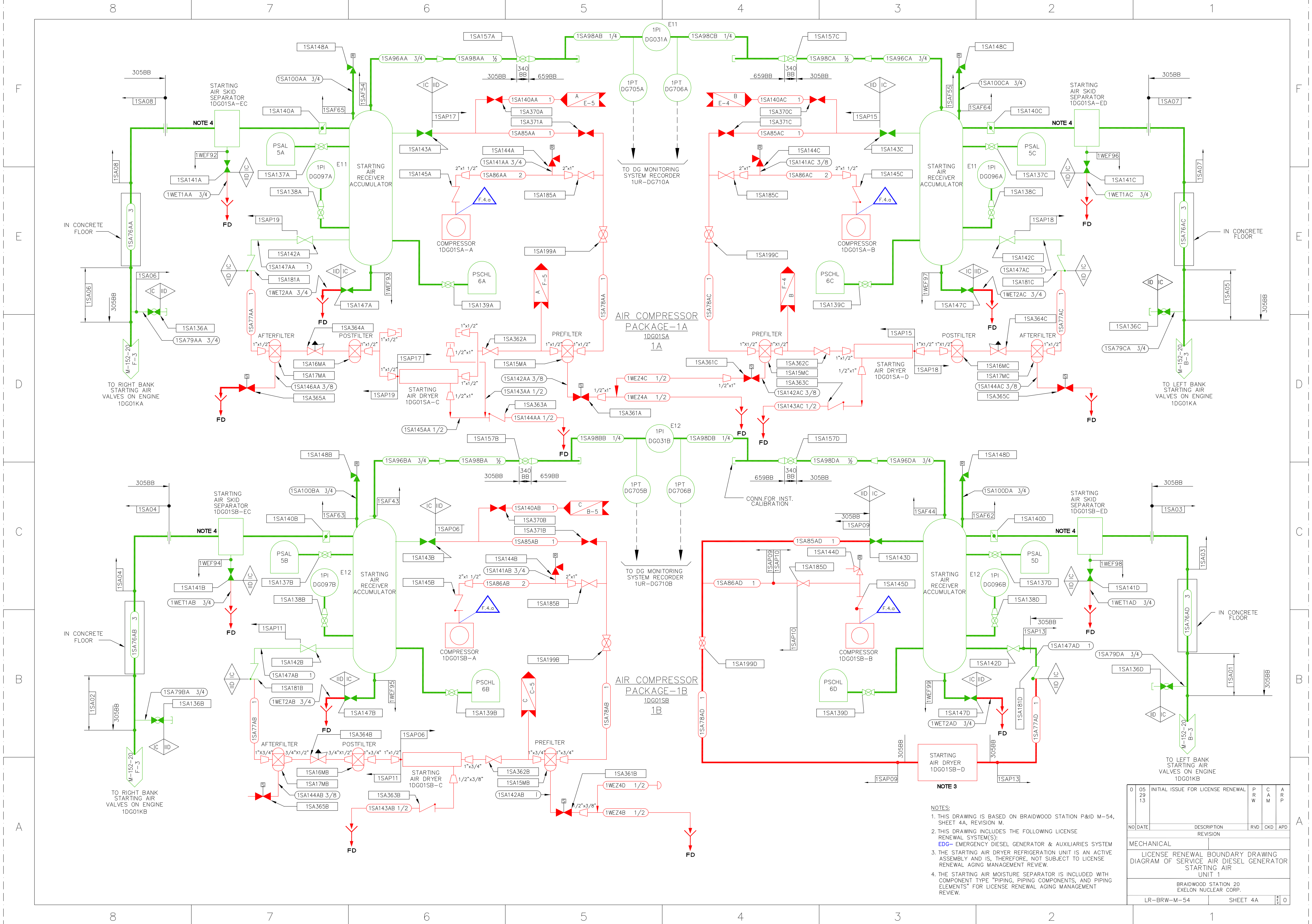
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	P	A
29	13		A	F	R
13			M	C	P
NO/DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF SERVICE BUILDING					
FIRE PROTECTION SYSTEM					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-52			SHEET 9		0



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-46, SHEET 2, REVISION AH.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CAS- COMPRESSED AIR SYSTEM

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	C	A	P	A	R
NO	DATE			DESCRIPTION	RVD	CKD	APD		
				REVISION					
MECHANICAL									
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF SERVICE AIR UNITS 1 & 2									
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.									
LR-BRW-M-54					SHEET 2		0		





NOTE 4

NOTE 4

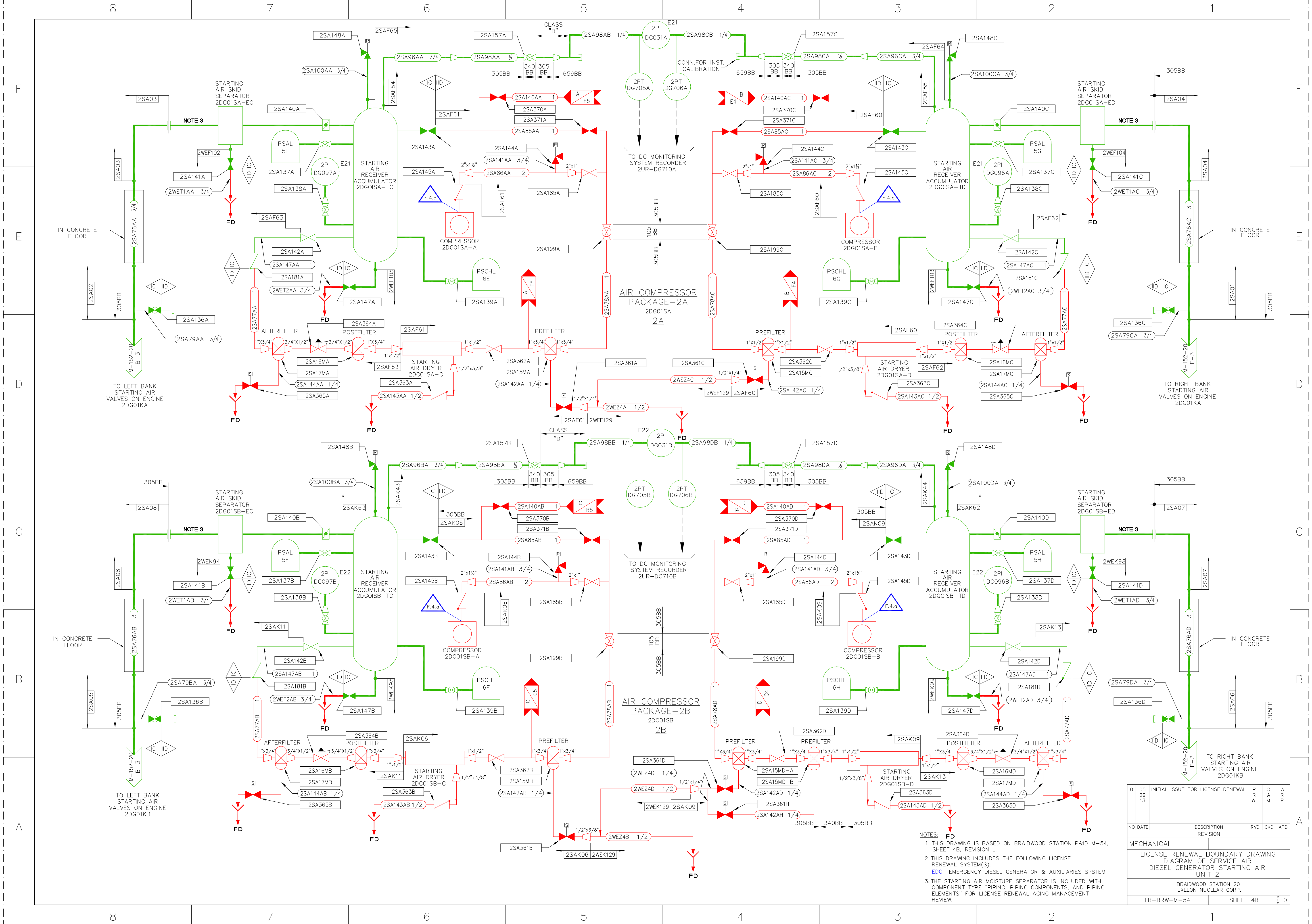
NOTE 4

NOTE 4

- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-54, SHEET 4A, REVISION M.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM
  - THE STARTING AIR DRYER REFRIGERATION UNIT IS AN ACTIVE ASSEMBLY AND IS, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE STARTING AIR MOISTURE SEPARATOR IS INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
					W		M		P
NO	DATE			DESCRIPTION	RVD	CKD	APD		
				REVISION					
MECHANICAL									
LICENSE RENEWAL BOUNDARY DRAWING									
DIAGRAM OF SERVICE AIR DIESEL GENERATOR									
STARTING AIR									
UNIT 1									
BRAIDWOOD STATION 20									
EXELON NUCLEAR CORP.									
LR-BRW-M-54				SHEET 4A					0





NOTE 3

NOTE 3

NOTE 3

NOTE 3

NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-54, SHEET 4B, REVISION L.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM  
 3. THE STARTING AIR MOISTURE SEPARATOR IS INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
					W		M		P
NO	DATE			DESCRIPTION	RVD	CKD	APD		
				REVISION					
MECHANICAL									
LICENSE RENEWAL BOUNDARY DRAWING									
DIAGRAM OF SERVICE AIR									
DIESEL GENERATOR STARTING AIR									
UNIT 2									
BRAIDWOOD STATION 20									
EXELON NUCLEAR CORP.									
LR-BRW-M-54 SHEET 4B 0									









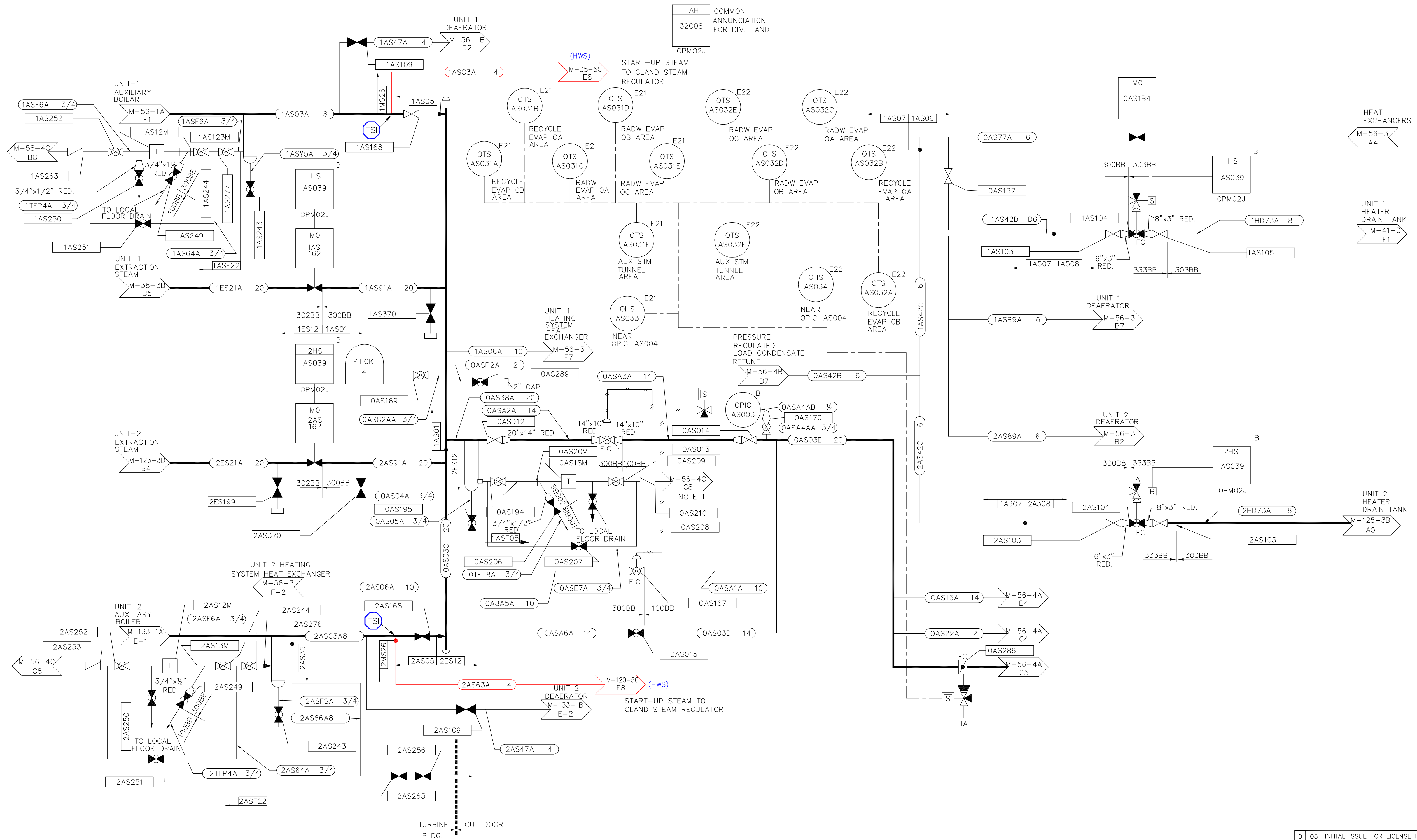








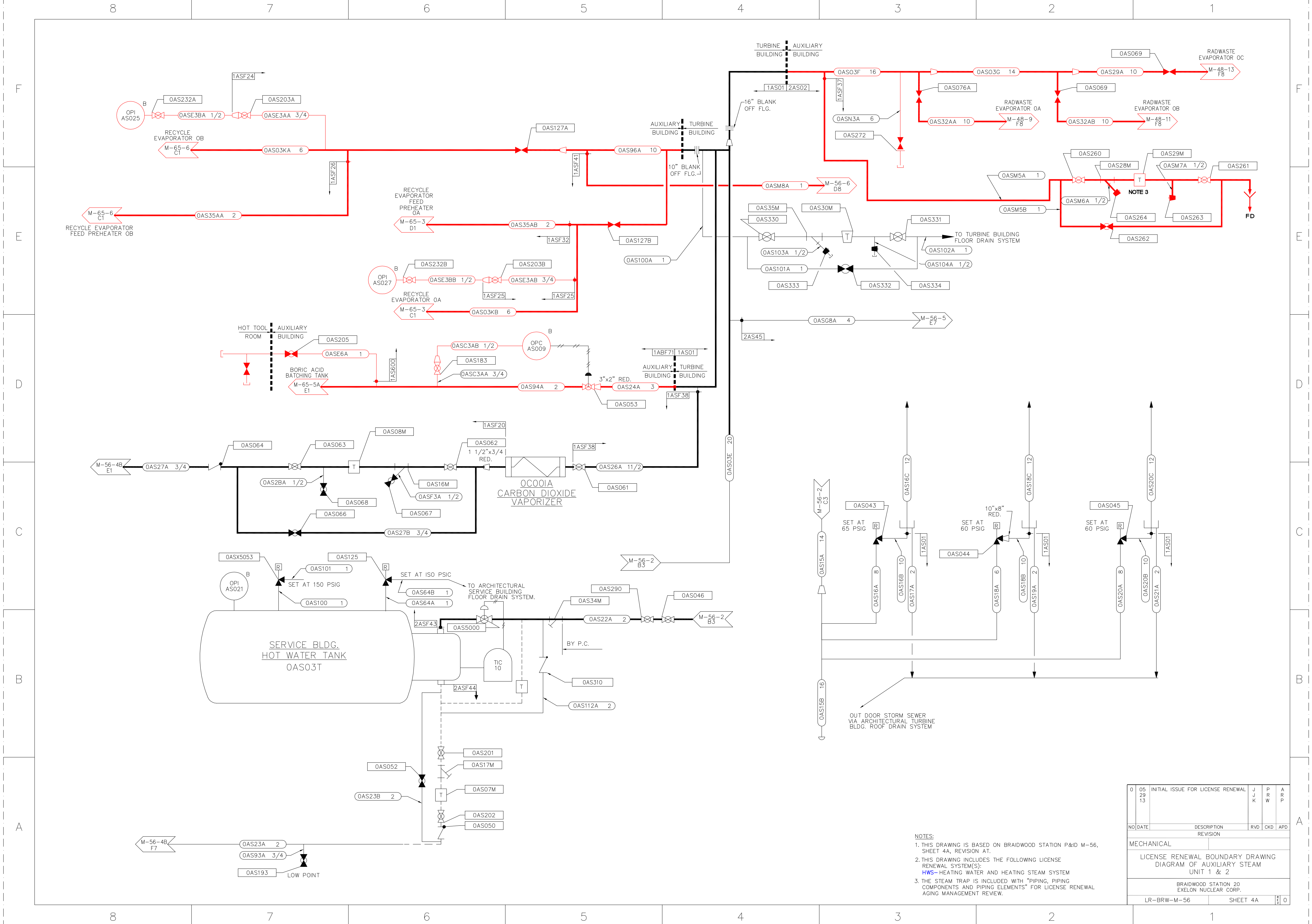




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-56, SHEET 2, REVISION AG.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 HWS- HEATING WATER AND HEATING STEAM SYSTEM  
 3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
	29		K	W	R
	13				P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF AUXILIARY STEAM UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-56		SHEET 2		0	





05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J K	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF AUXILIARY STEAM UNIT 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-56		SHEET 4A		0

NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-56, SHEET 4A, REVISION A1.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 HWS- HEATING WATER AND HEATING STEAM SYSTEM  
 3. THE STEAM TRAP IS INCLUDED WITH "PIPING, PIPING COMPONENTS AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

NOTE 3

OUT DOOR STORM SEWER  
VIA ARCHITECTURAL TURBINE  
BLDG. ROOF DRAIN SYSTEM

OC001A  
CARBON DIOXIDE  
VAPORIZER

SERVICE BLDG.  
HOT WATER TANK  
OAS03T

HOT TOOL  
ROOM  
AUXILIARY  
BUILDING  
BORIC ACID  
BATCHING TANK  
M-65-5A  
E1

RECYCLE EVAPORATOR  
OB

RECYCLE EVAPORATOR  
FEED PREHEATER  
OA

RECYCLE EVAPORATOR  
OA

RADWASTE EVAPORATOR  
OC

RADWASTE EVAPORATOR  
OA

RADWASTE EVAPORATOR  
OB

TURBINE BUILDING  
AUXILIARY BUILDING

AUXILIARY BUILDING  
TURBINE BUILDING

AUXILIARY BUILDING  
TURBINE BUILDING

HOT TOOL ROOM  
AUXILIARY BUILDING

RECYCLE EVAPORATOR  
FEED PREHEATER  
OB

RECYCLE EVAPORATOR  
FEED PREHEATER  
OB

FD

TO TURBINE BUILDING  
FLOOR DRAIN SYSTEM

TO ARCHITECTURAL  
SERVICE BUILDING  
FLOOR DRAIN SYSTEM.

BY P.C.

SET AT 150 PSIG

SET AT ISO PSIG

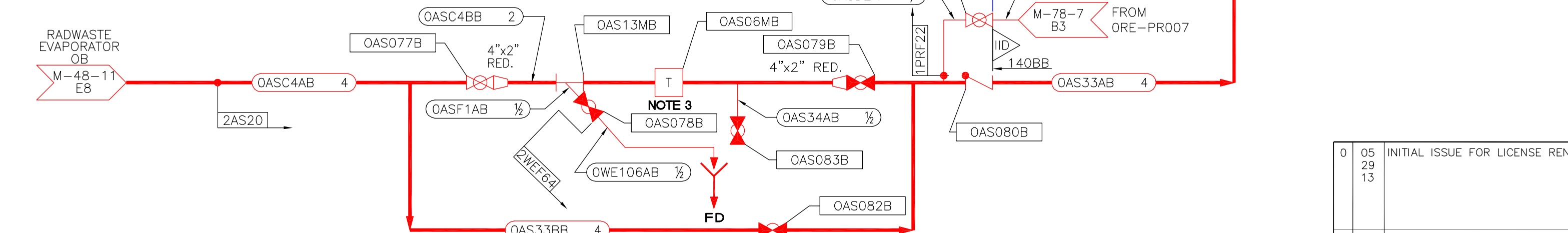
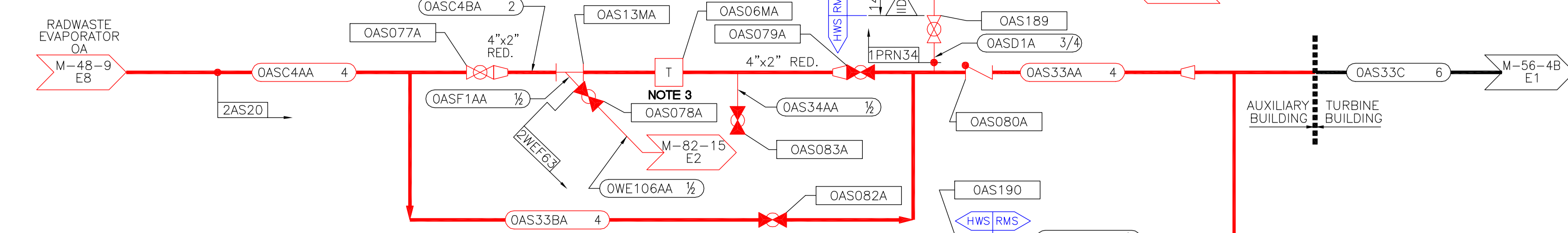
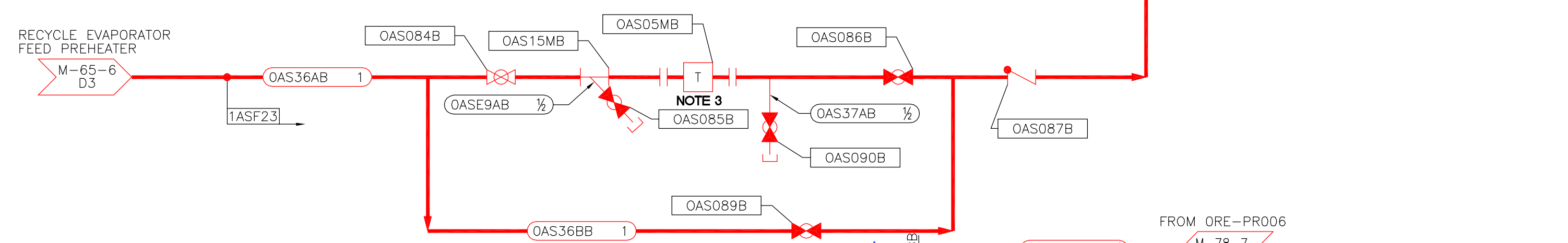
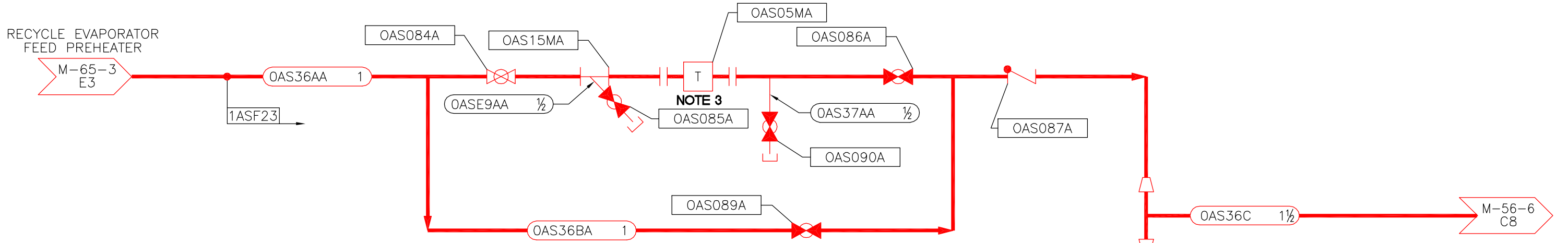
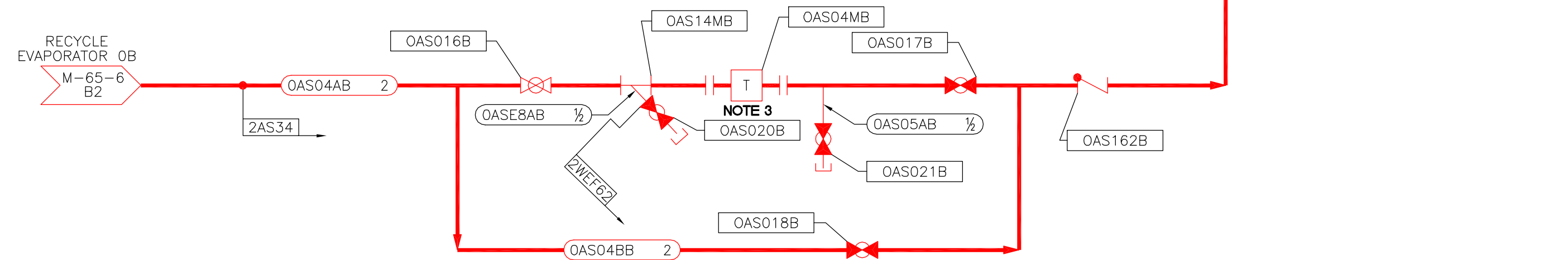
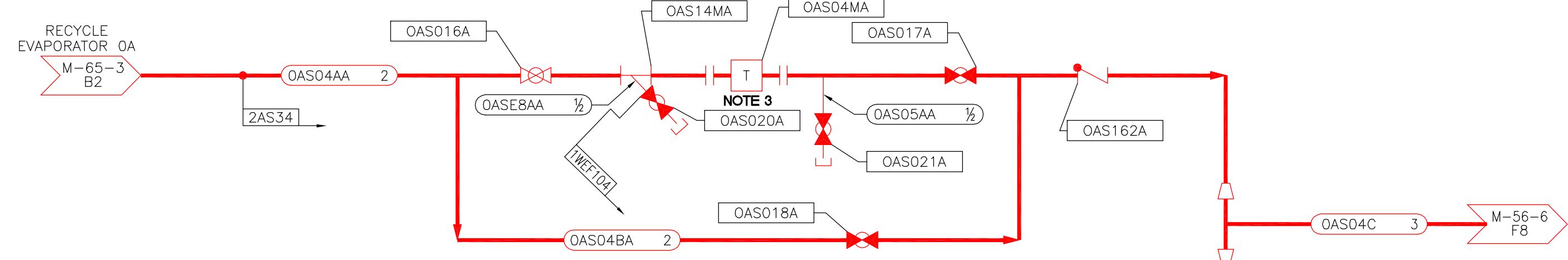
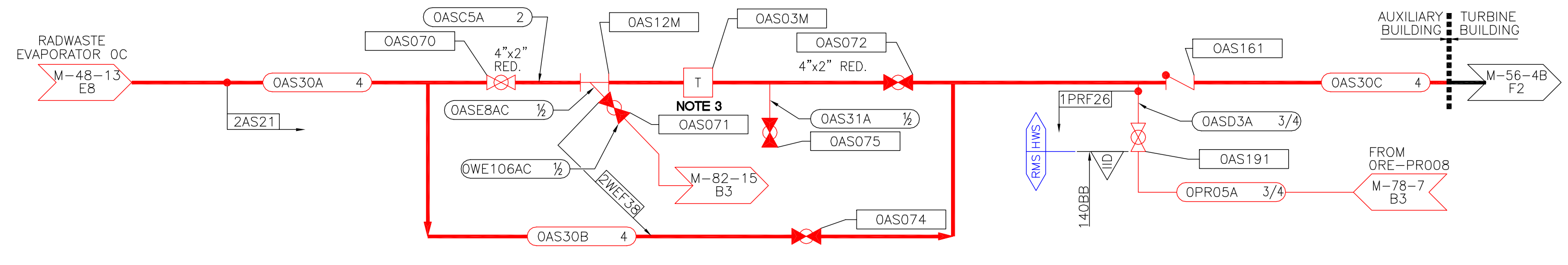
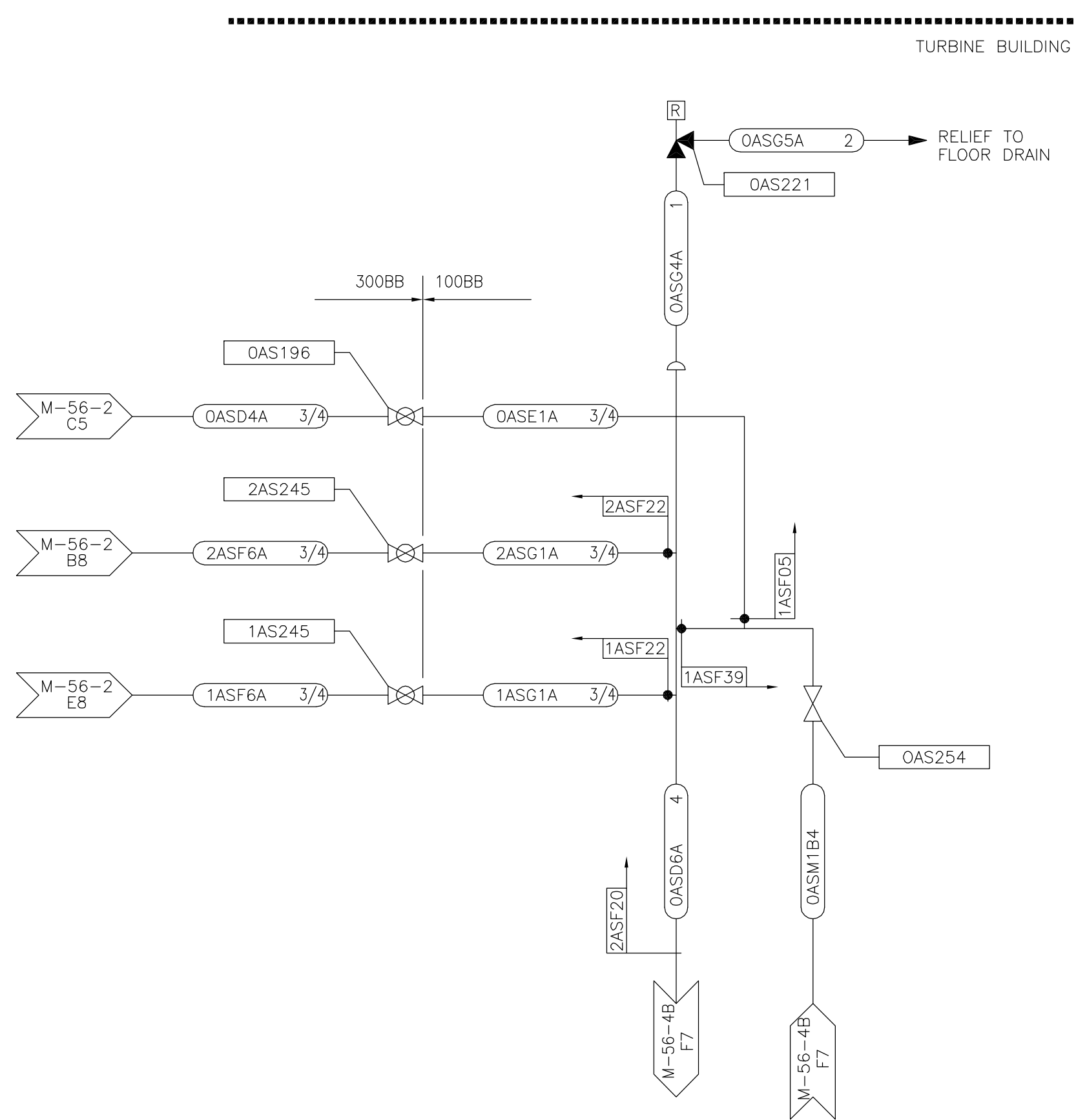
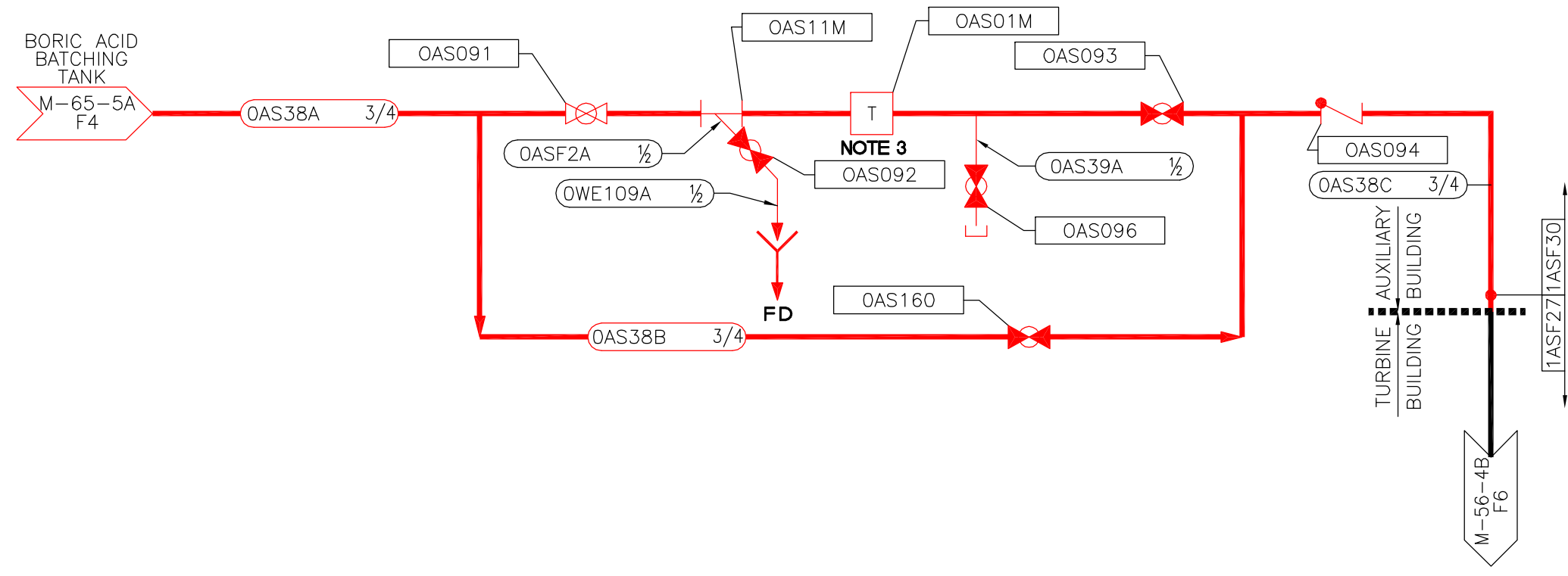
SET AT 65 PSIG

SET AT 60 PSIG

SET AT 60 PSIG

LOW POINT

LOW POINT



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-56, SHEET 4C, REVISION AM.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 HWS- HEATING WATER AND HEATING STEAM SYSTEM  
 RMS- RADIATION MONITORING SYSTEM  
 3. THE STEAM TRAP IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		K	R	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF AUXILIARY STEAM					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-56		SHEET 4C		0	



8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

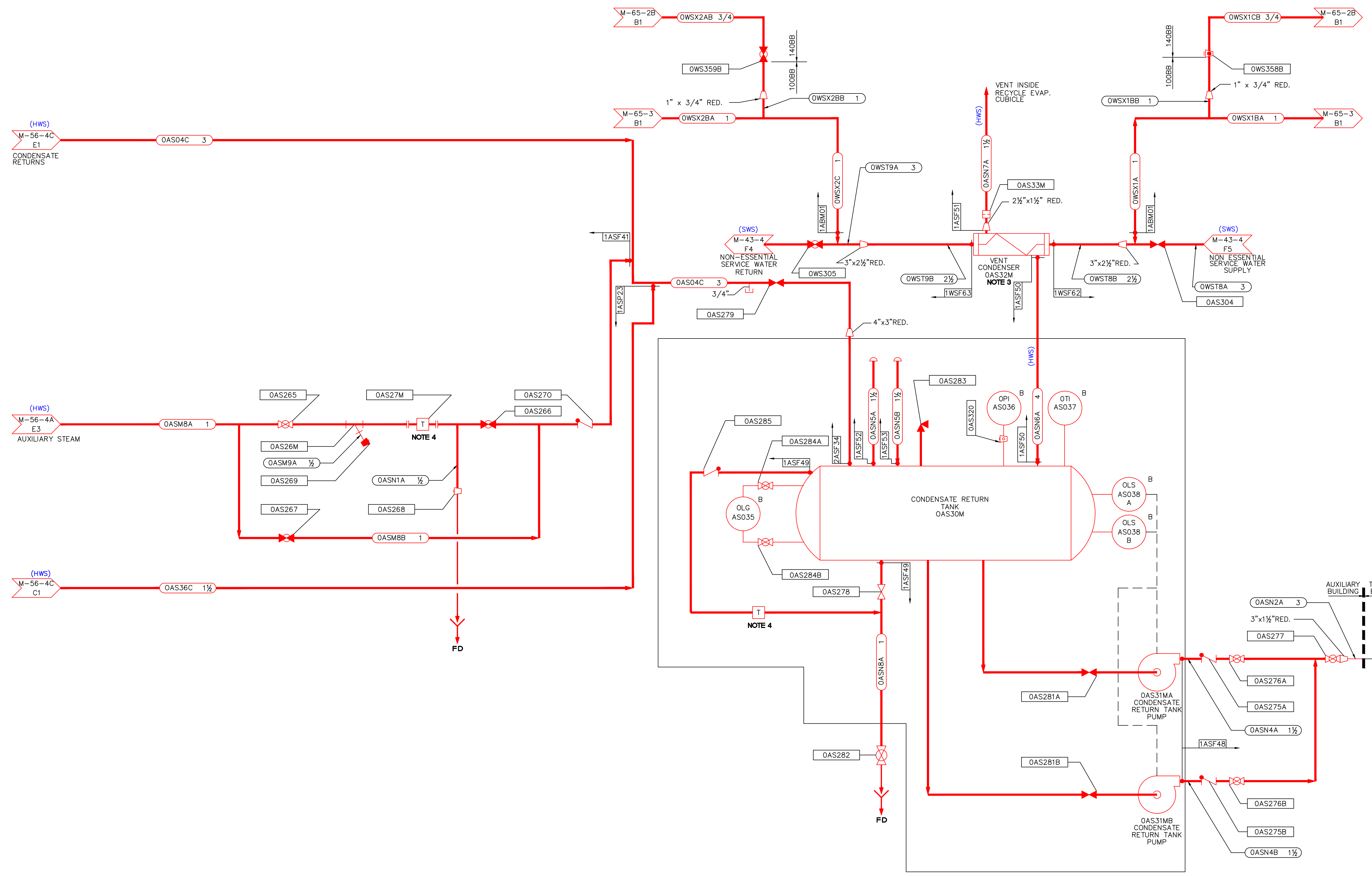
E

D

C

B

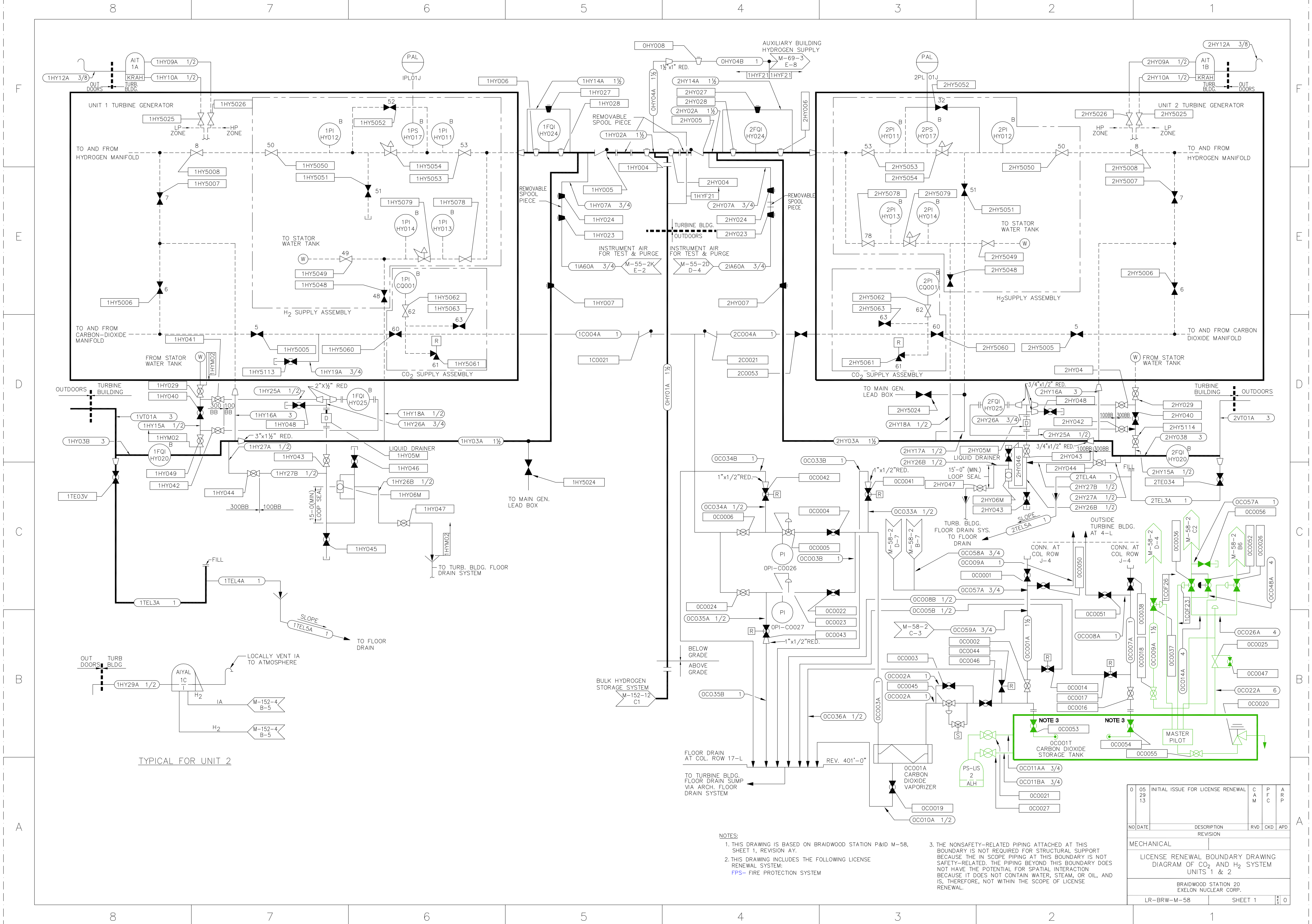
A



**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-56, SHEET 6, REVISION G.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
HWS- HEATING WATER AND HEATING STEAM SYSTEM  
SWS- SERVICE WATER SYSTEM
- THE VENT CONDENSER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
- THE STEAM TRAP IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		P	J	R
			J	K	
			O		
			D		
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF					
AUXILIARY STEAM SYSTEM					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-56			SHEET 6		0



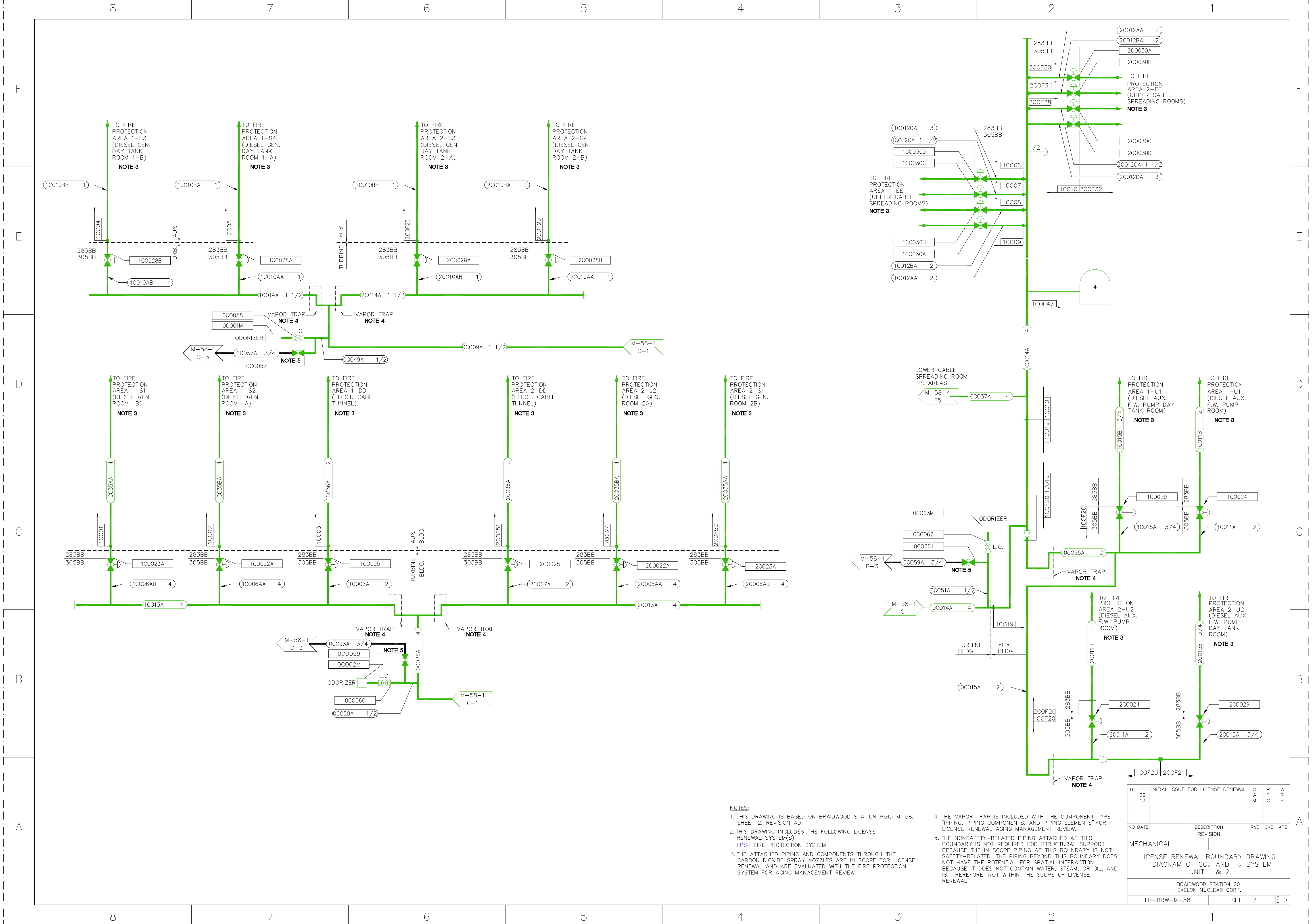
TYPICAL FOR UNIT 2

NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-58, SHEET 1, REVISION AY.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM:  
 FPS- FIRE PROTECTION SYSTEM  
 3. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

NOTE 3  
 OCO011  
 CARBON DIOXIDE STORAGE TANK  
 MASTER PILOT  
 OCO054  
 OCO055

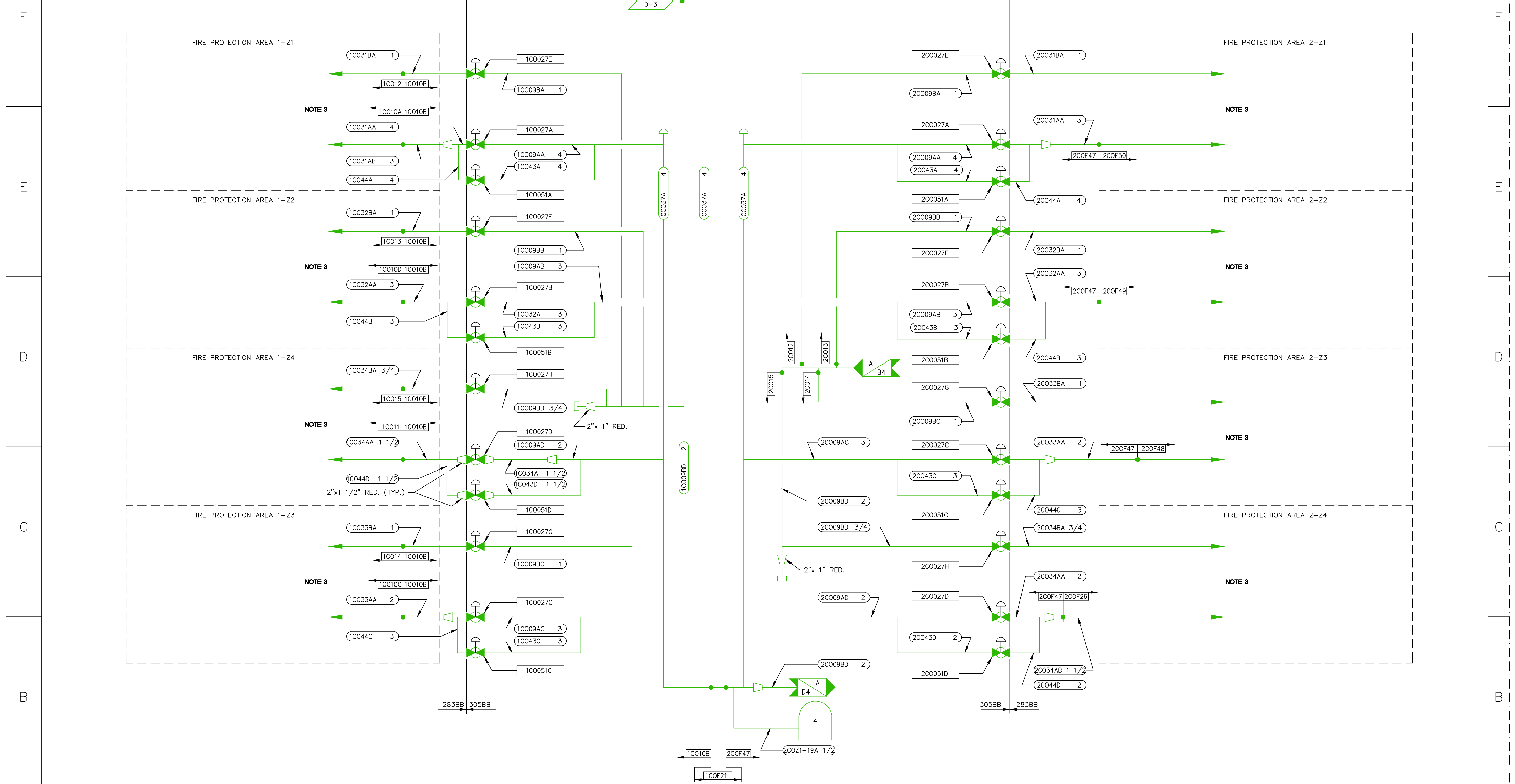
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	C A M	P F C	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CO <sub>2</sub> AND H <sub>2</sub> SYSTEM UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-58	SHEET 1	0		





- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-58, SHEET 2, REVISION AD.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS- FIRE PROTECTION SYSTEM
  3. THE ATTACHED PIPING AND COMPONENTS THROUGH THE CARBON DIOXIDE SPRAY NOZZLES ARE IN SCOPE FOR LICENSE RENEWAL AND ARE EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR AGING MANAGEMENT REVIEW.
  4. THE VAPOR TRAP IS INCLUDED WITH THE COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  5. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	A	P	A
	29		M	M	F	R
	13				C	P
NO	DATE	DESCRIPTION	RVD	CKD	APD	
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CO <sub>2</sub> AND H <sub>2</sub> SYSTEM UNIT 1 & 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-58			SHEET 2		0	

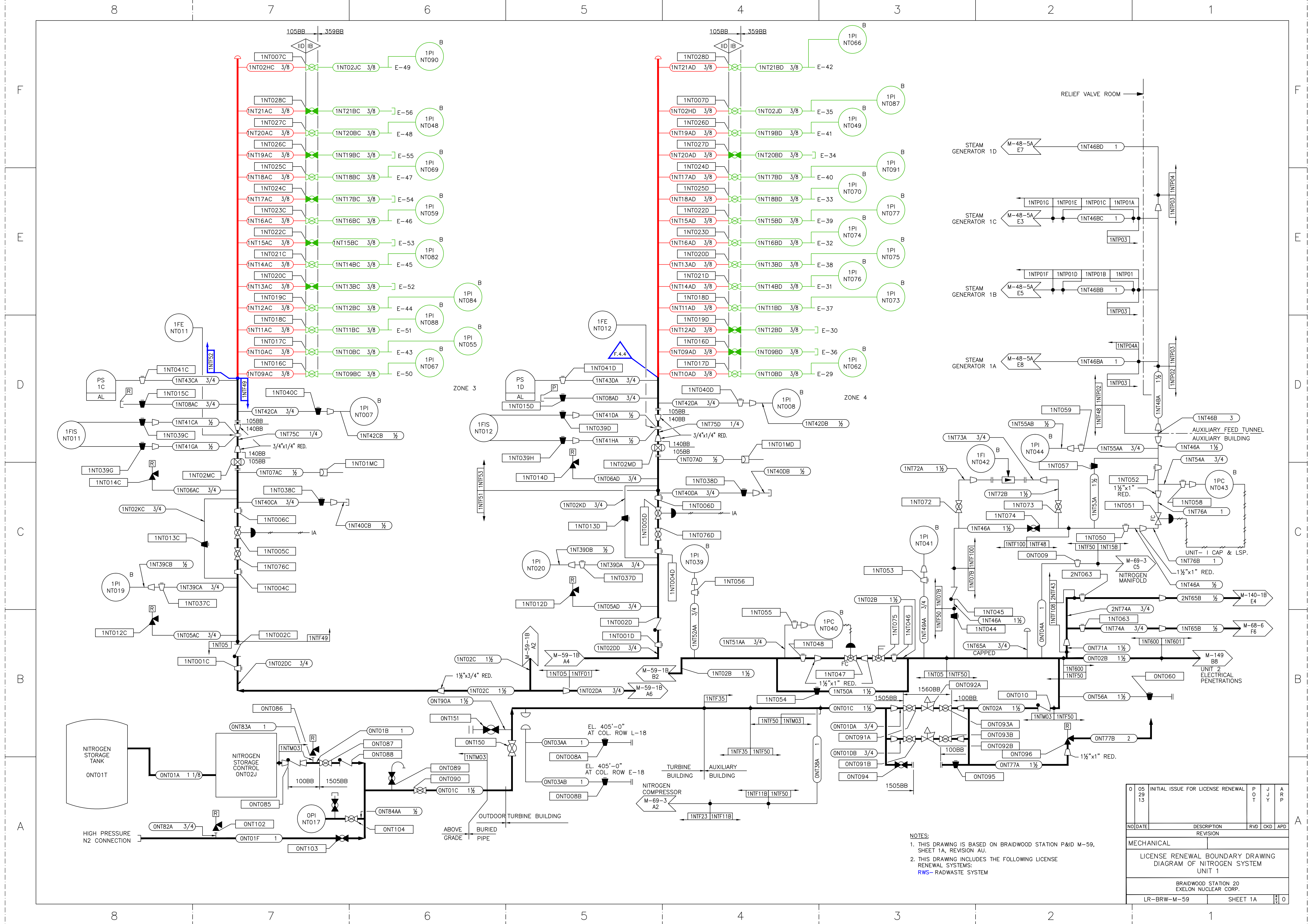


LOWER CABLE SPREADING AREAS

- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-58, SHEET 4, REVISION N.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS - FIRE PROTECTION SYSTEM
  - THE ATTACHED PIPING AND COMPONENTS UP TO AND INCLUDING THE CARBON DIOXIDE SPRAY NOZZLES ARE IN SCOPE FOR LICENSE RENEWAL AND ARE EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR AGING MANAGEMENT REVIEW.

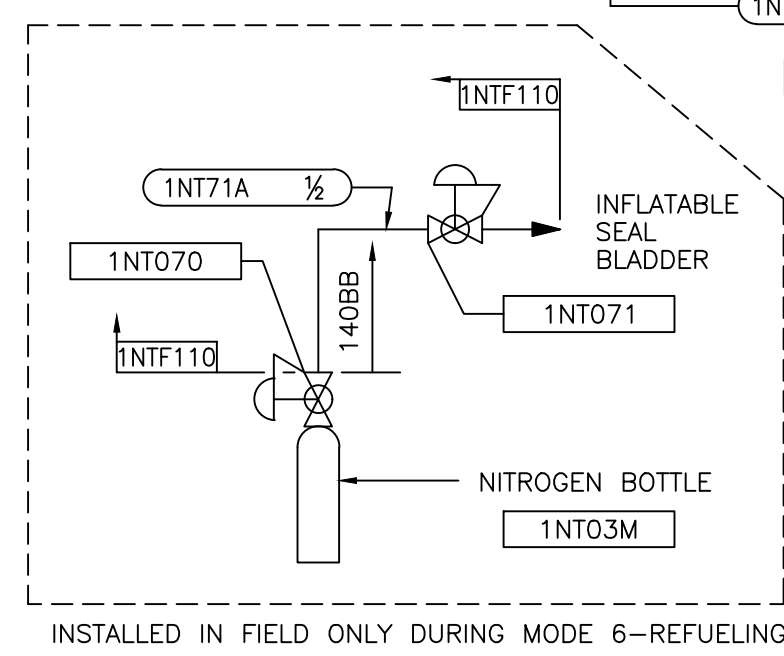
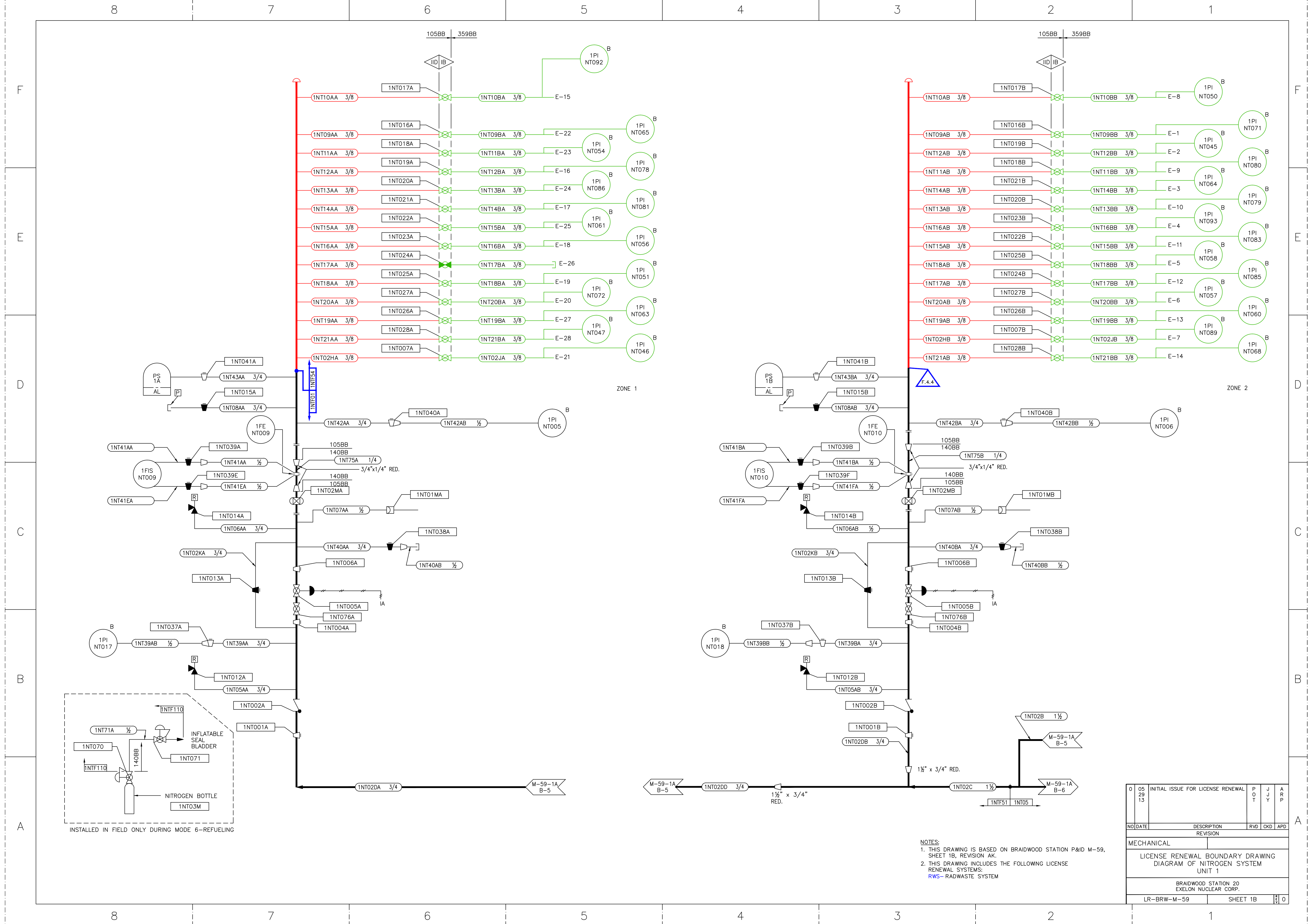
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	P	A
29	13		A	F	R
13			M	C	P
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CO <sub>2</sub> SYSTEM UNIT 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-58		SHEET 4	0		





NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-59, SHEET 1A, REVISION AU.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
 RWS- RADWASTE SYSTEM

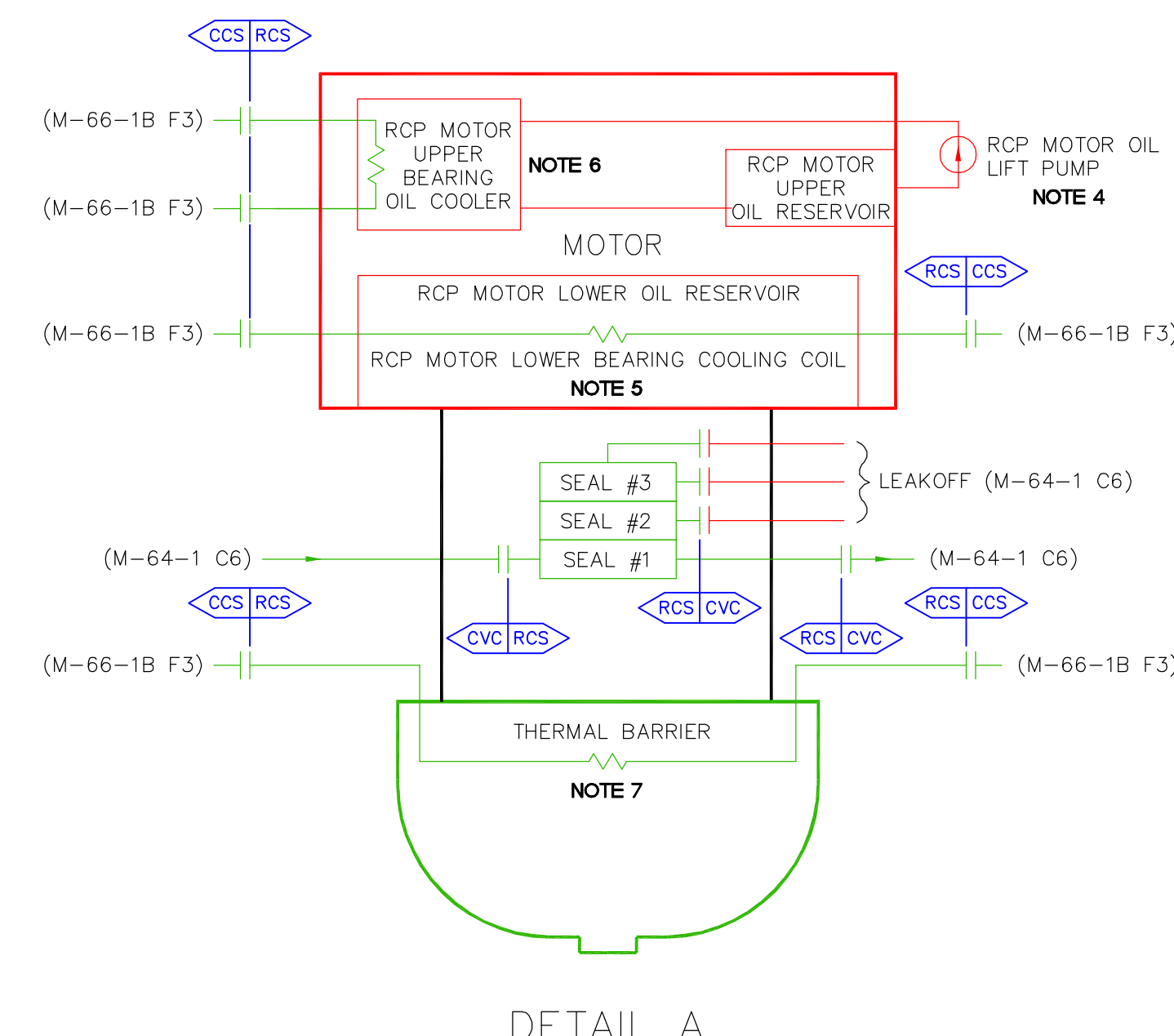
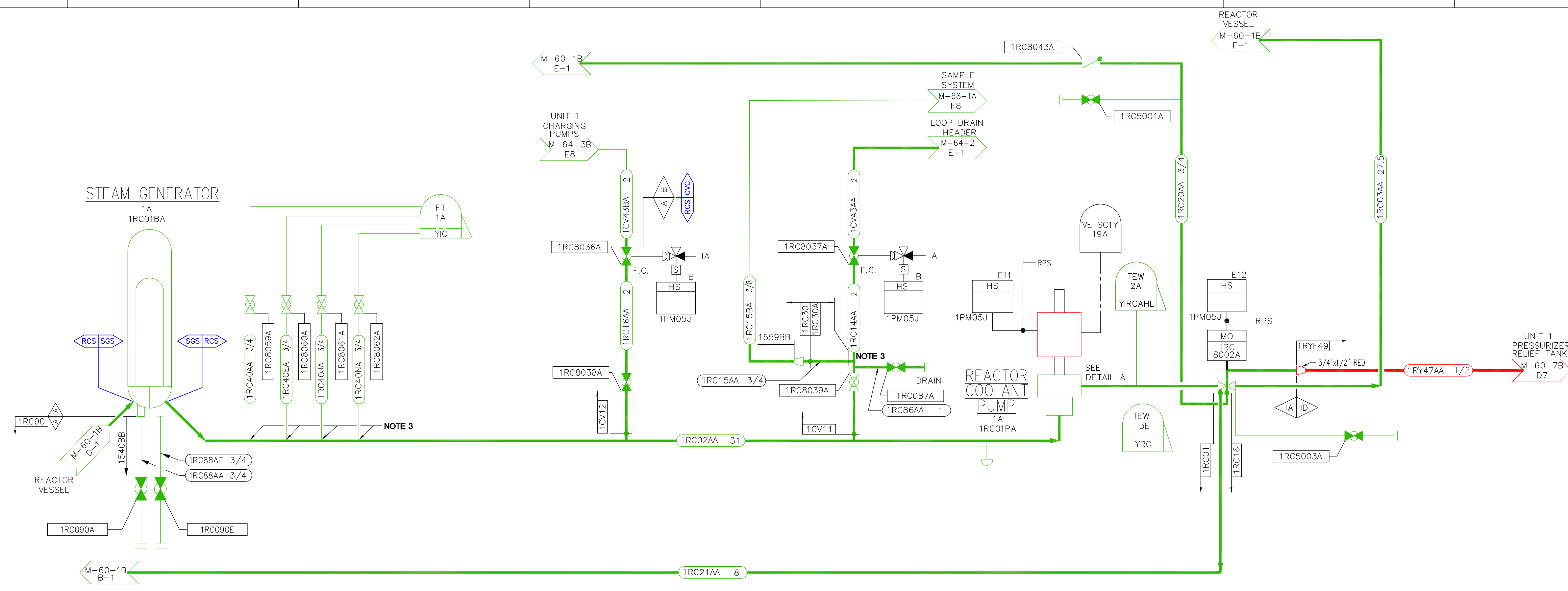
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	POT	J	A	R
NO DATE	DESCRIPTION	RVD	CKD	APD	
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF NITROGEN SYSTEM UNIT 1					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-59	SHEET 1A	0			



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-59, SHEET 1B, REVISION AK.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
 RWS- RADWASTE SYSTEM

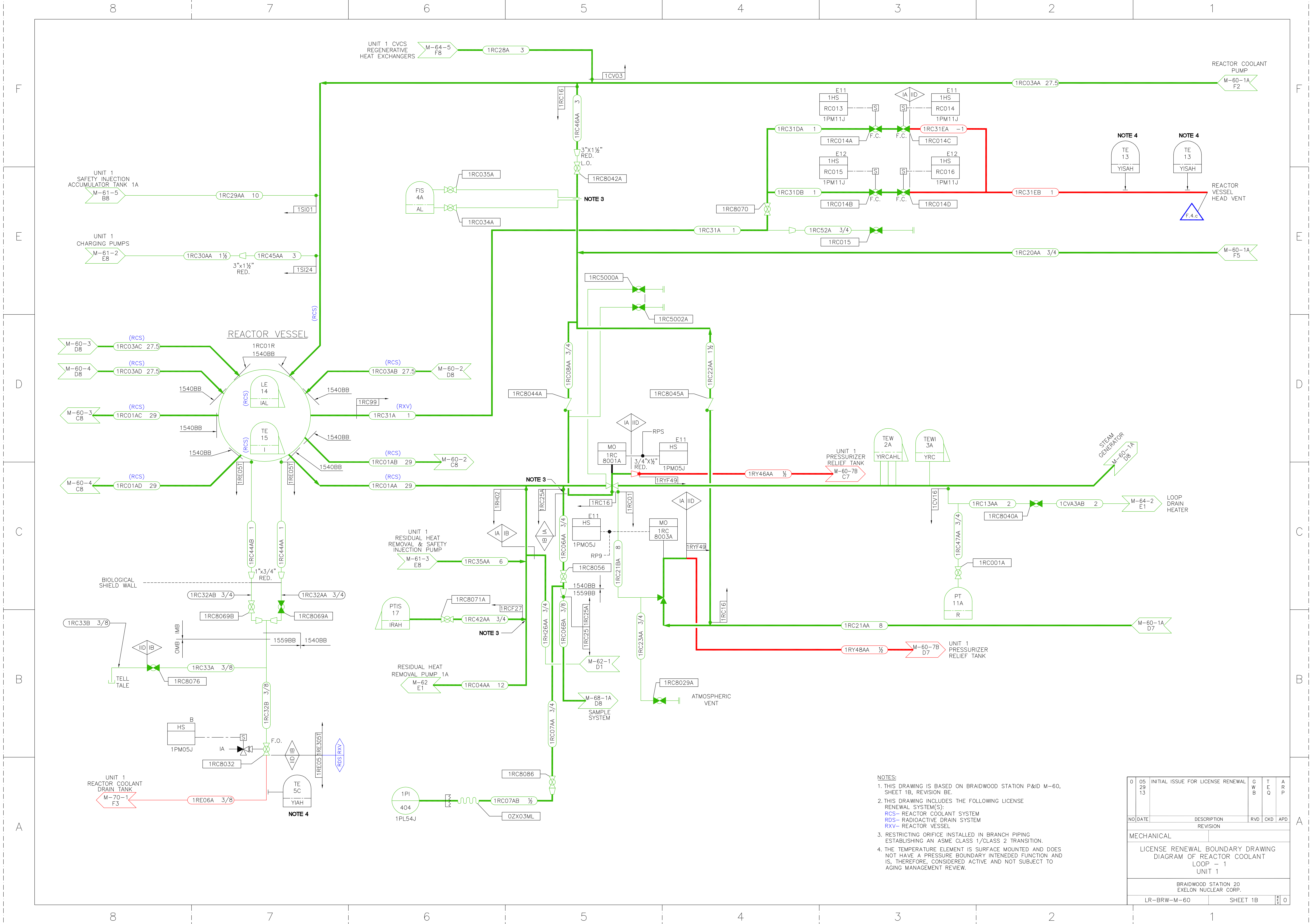
05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	POT	J J Y	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF NITROGEN SYSTEM UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-59	SHEET 1B	0		





- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-60, SHEET 1A, REVISION BB.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS- COMPONENT COOLING SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 SGS- STEAM GENERATORS
  3. RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.
  4. INCLUDED IN THE REACTOR COOLANT PUMP MOTOR OIL LIFT SYSTEM ARE VALVES, STRAINER BODIES, FILTER HOUSINGS, AND SIGHT GLASSES.
  5. THE REACTOR COOLANT PUMP MOTOR LOWER BEARING COOLING COIL IS EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW. THE REACTOR COOLANT PUMP MOTOR LOWER BEARING COOLING COIL HAS NO SHELL SIDE COMPONENTS, TUBE SIDE COMPONENTS OR TUBE SHEET.
  6. THE REACTOR COOLANT PUMP MOTOR UPPER BEARING OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW.
  7. THE REACTOR COOLANT PUMP THERMAL BARRIER HEAT EXCHANGER IS EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW. THE REACTOR COOLANT PUMP THERMAL BARRIER HEAT EXCHANGER HAS NO SHELL SIDE COMPONENTS, TUBE SIDE COMPONENTS OR TUBE SHEET.
  8. THE PRESSURE INSTRUMENT IS ABANDONED IN PLACE AND VERIFIED ISOLATED, VENTED, AND DRAINED, THEREFORE, IT DOES NOT PRESENT A SPATIAL INTERACTION HAZARD TO SAFETY-RELATED SSCs AND IS NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	G	T	A
					W	E	R
					B	Q	P
NO DATE	DESCRIPTION			RVD	CKD	APD	
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT LOOP - 1 UNIT 1							
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.							
LR-BRW-M-60				SHEET 1A		0	



UNIT 1 CVCS  
REGENERATIVE  
HEAT EXCHANGERS

UNIT 1  
SAFETY INJECTION  
ACCUMULATOR TANK 1A

UNIT 1  
CHARGING PUMPS

REACTOR VESSEL

BIOLOGICAL  
SHIELD WALL

UNIT 1  
REACTOR COOLANT  
DRAIN TANK

REACTOR COOLANT  
PUMP

REACTOR VESSEL  
HEAD VENT

UNIT 1  
PRESSURIZER  
RELIEF TANK

STEAM  
GENERATOR

RESIDUAL HEAT  
REMOVAL PUMP 1A

ATMOSPHERIC  
VENT

- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-60, SHEET 1B, REVISION BE.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
RCS- REACTOR COOLANT SYSTEM  
RDS- RADIOACTIVE DRAIN SYSTEM  
RXV- REACTOR VESSEL
  - RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.
  - THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	G W B	T E Q	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT LOOP - 1 UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-60	SHEET 1B	0		

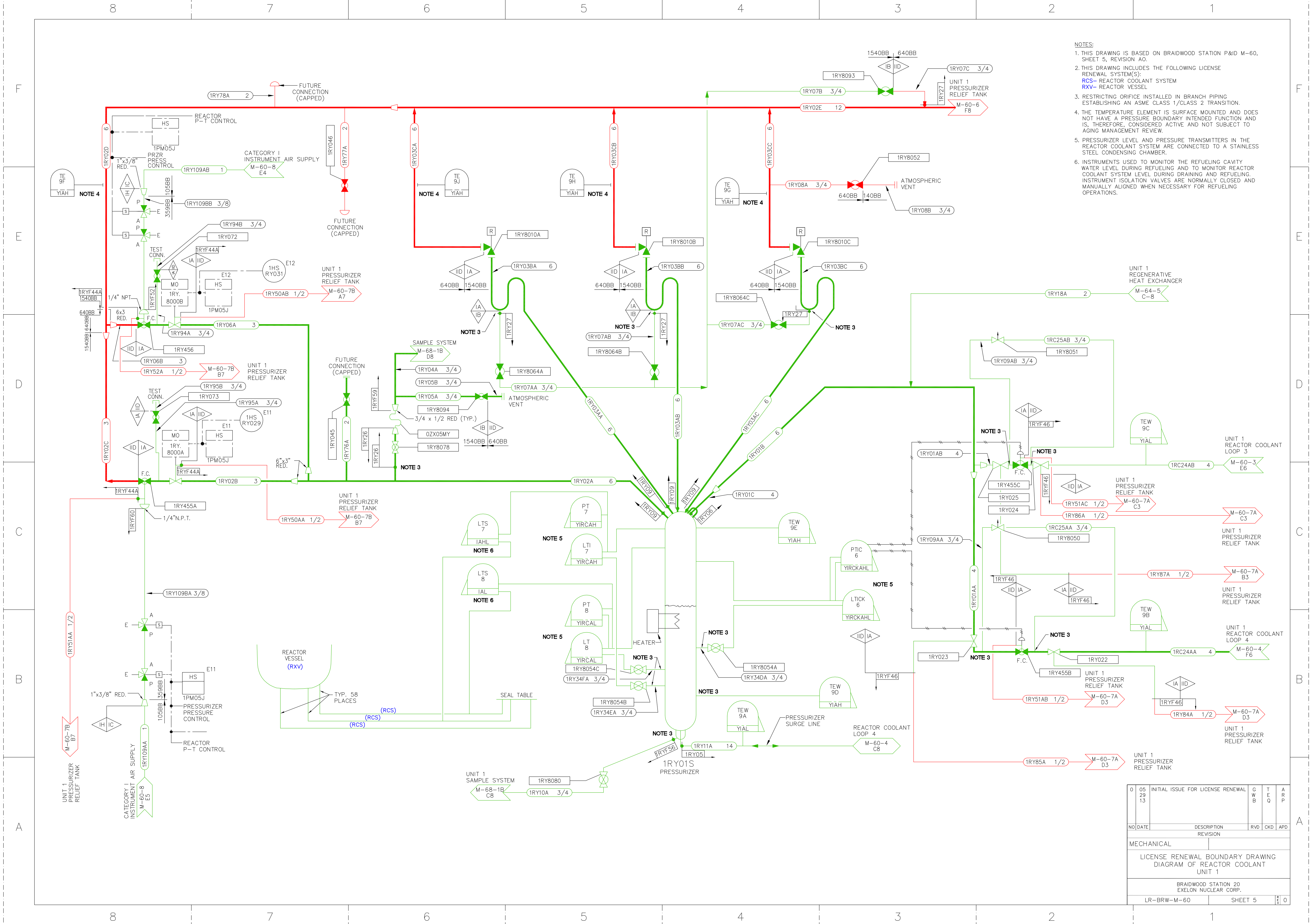








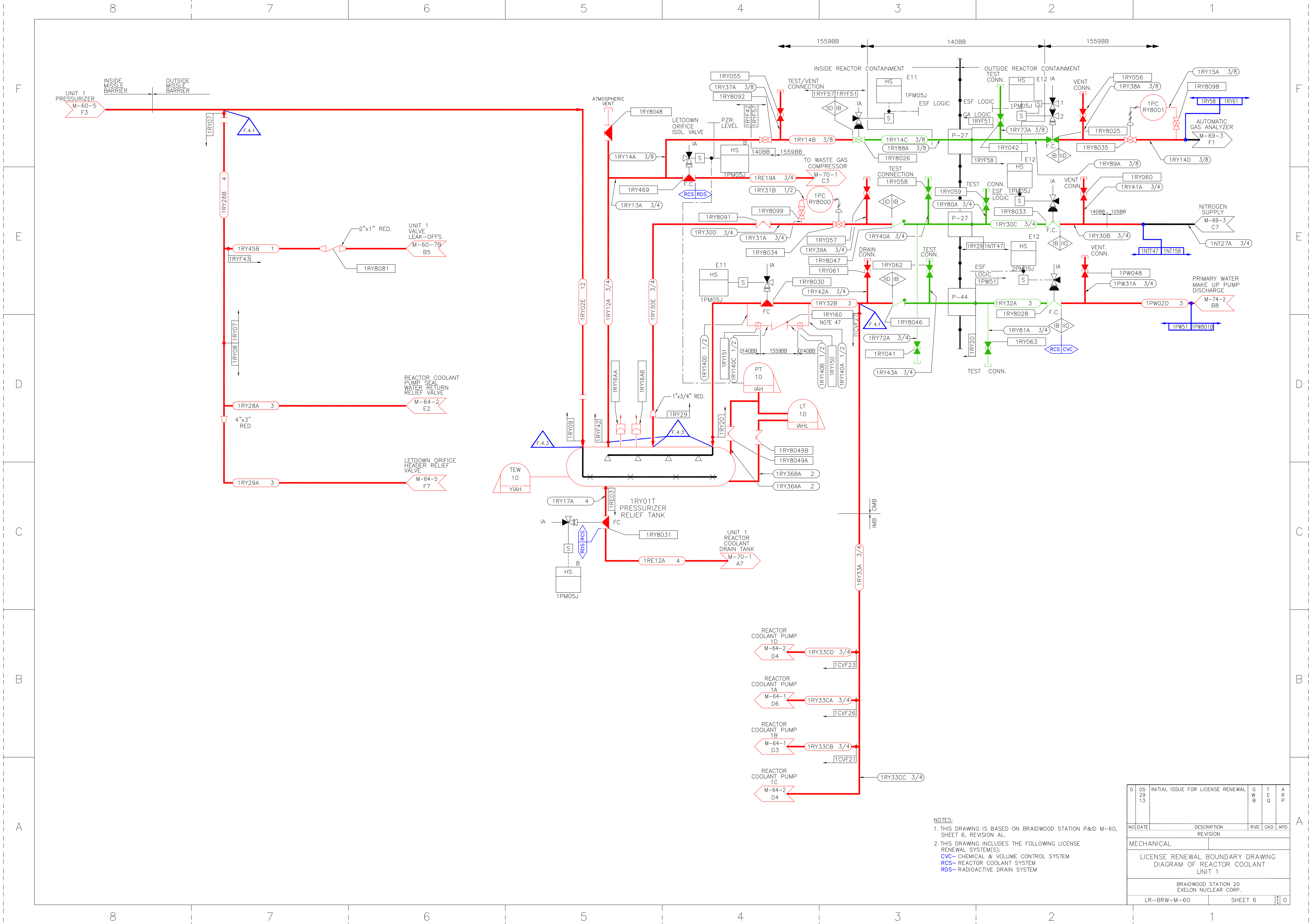




- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-60, SHEET 5, REVISION A0.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 RCS- REACTOR COOLANT SYSTEM  
 RV- REACTOR VESSEL
  - RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.
  - THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - PRESSURIZER LEVEL AND PRESSURE TRANSMITTERS IN THE REACTOR COOLANT SYSTEM ARE CONNECTED TO A STAINLESS STEEL CONDENSING CHAMBER.
  - INSTRUMENTS USED TO MONITOR THE REFUELING CAVITY WATER LEVEL DURING REFUELING AND TO MONITOR REACTOR COOLANT SYSTEM LEVEL DURING DRAINING AND REFUELING. INSTRUMENT ISOLATION VALVES ARE NORMALLY CLOSED AND MANUALLY ALIGNED WHEN NECESSARY FOR REFUELING OPERATIONS.

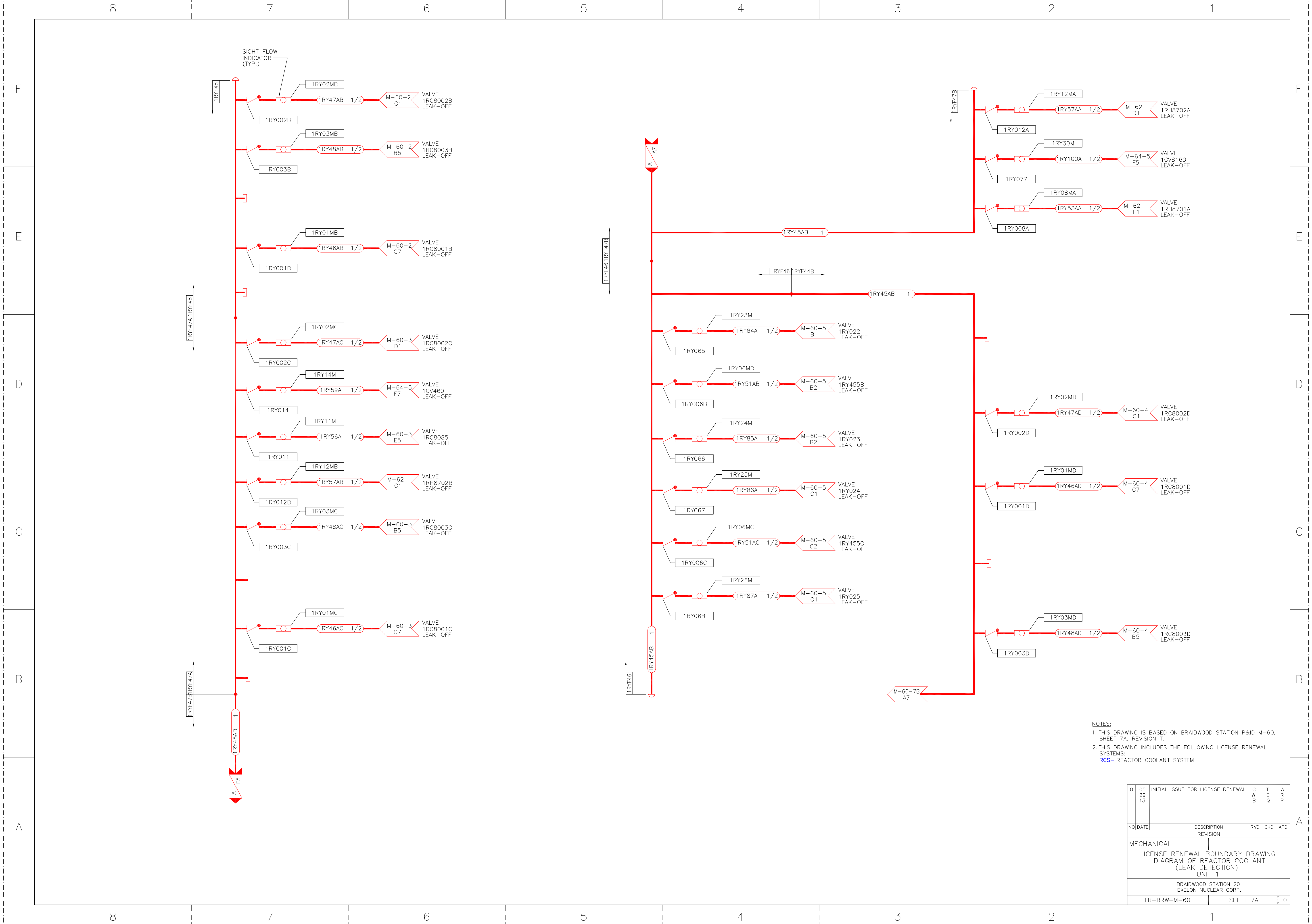
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	W	T	A
29	13		B	B	E	R
						P
NO	DATE	DESCRIPTION	RVD	CKD	APD	
		REVISION				
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT UNIT 1						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-60			SHEET 5		0	





NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-60, SHEET 6, REVISION AL.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM

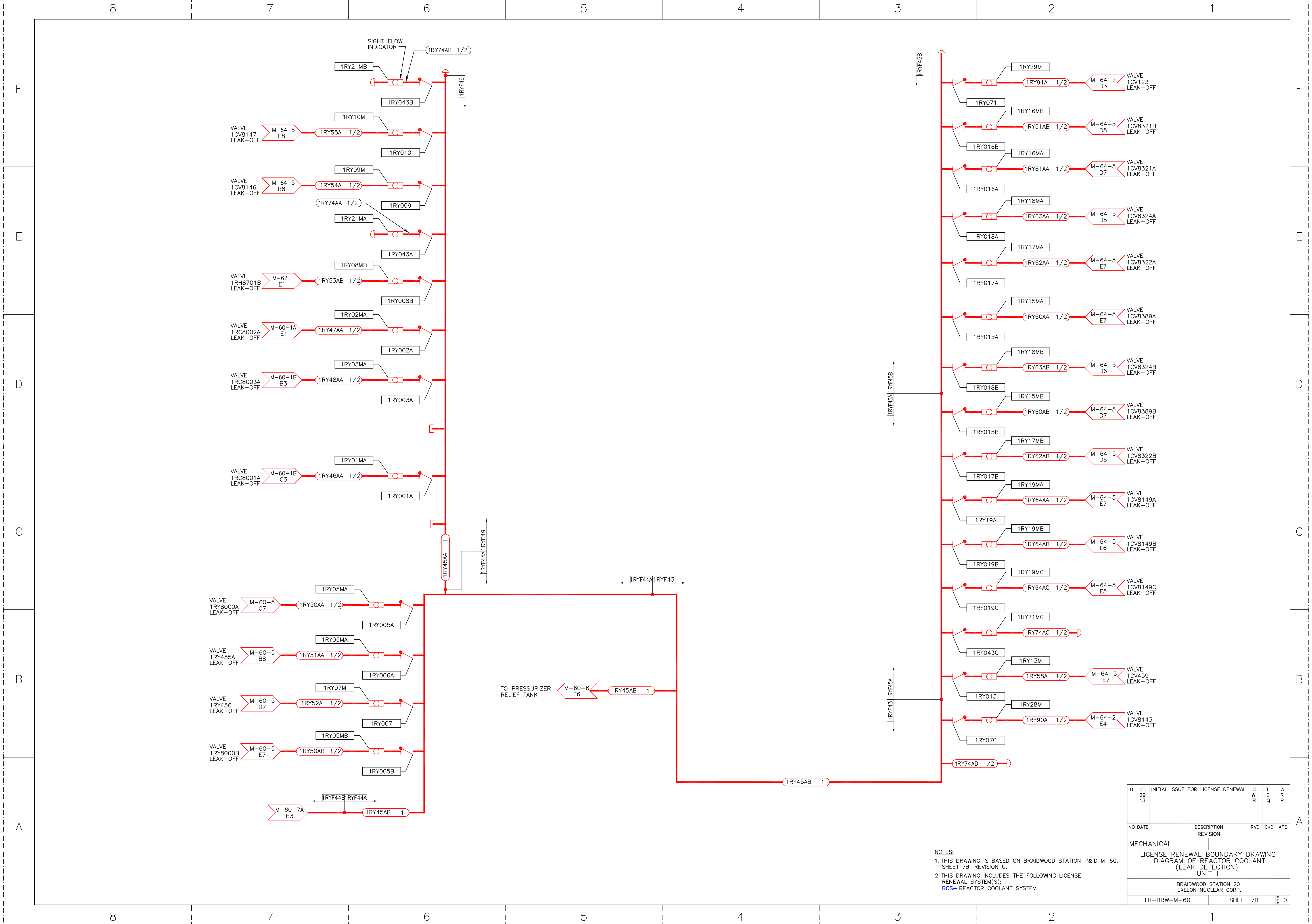
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	G W B	T E Q	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-60	SHEET 6	0		



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-60, SHEET 7A, REVISION T.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
 RCS- REACTOR COOLANT SYSTEM

05	INITIAL ISSUE FOR LICENSE RENEWAL	G	T	A	
29		W	E	R	
13		B	O	P	
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT (LEAK DETECTION) UNIT 1					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-60		SHEET 7A	0		



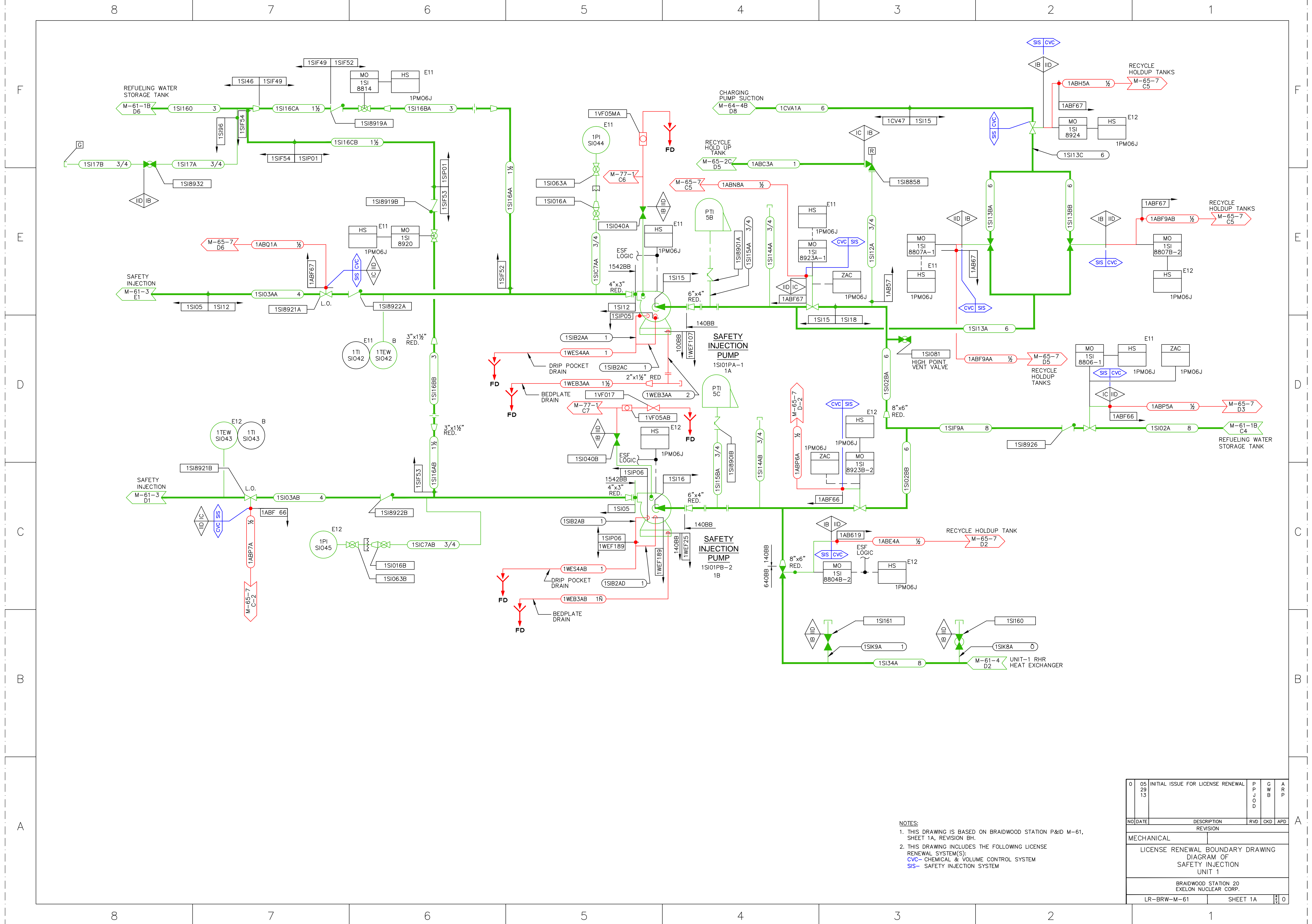


NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-60, SHEET 7B, REVISION U.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 RCS- REACTOR COOLANT SYSTEM

05	INITIAL ISSUE FOR LICENSE RENEWAL	G	T	A
29		W	E	R
13		B	Q	P
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF REACTOR COOLANT				
(LEAK DETECTION)				
UNIT 1				
BRAIDWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-60	SHEET 7B			0

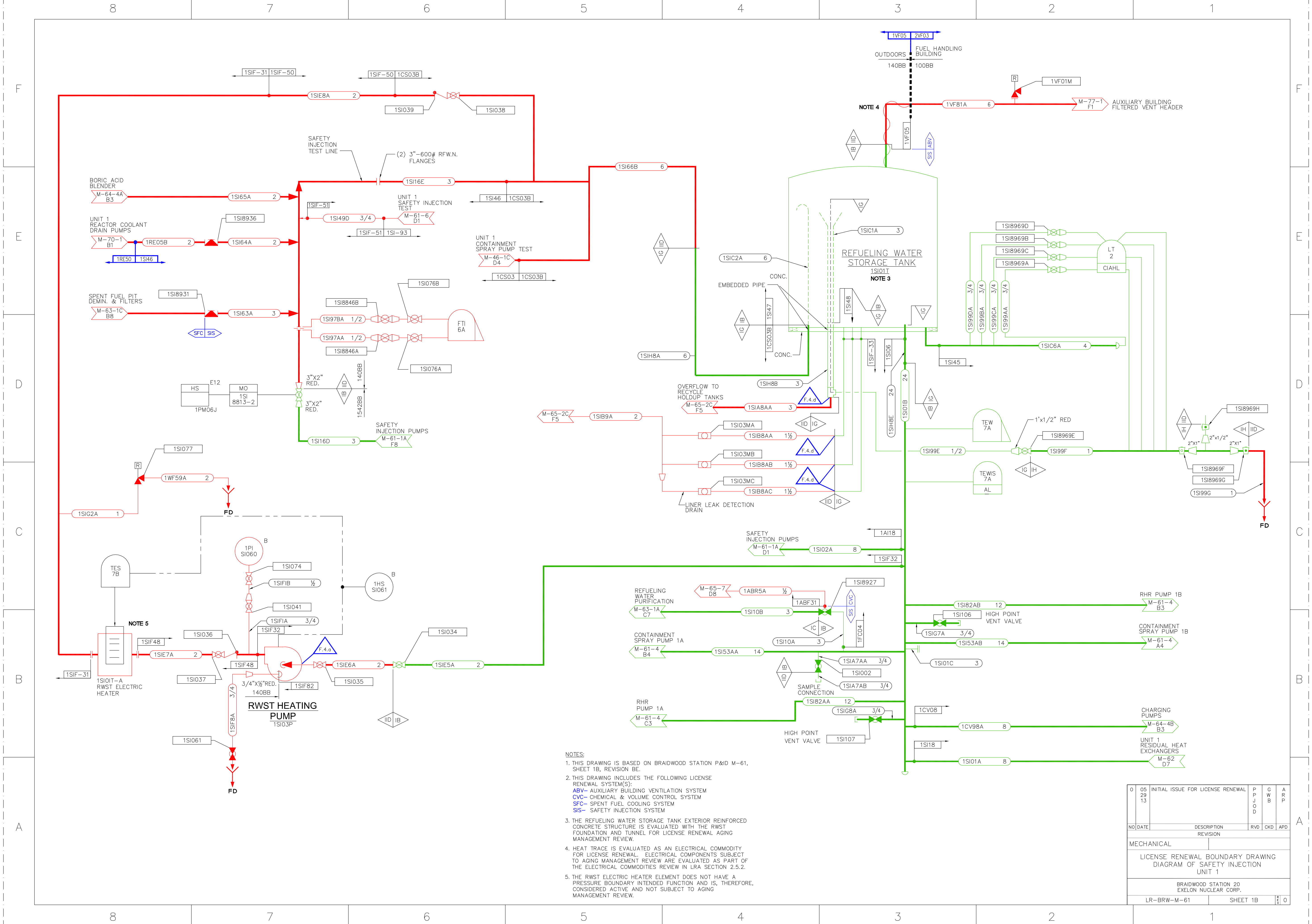






NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-61, SHEET 1A, REVISION BH.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 SIS- SAFETY INJECTION SYSTEM

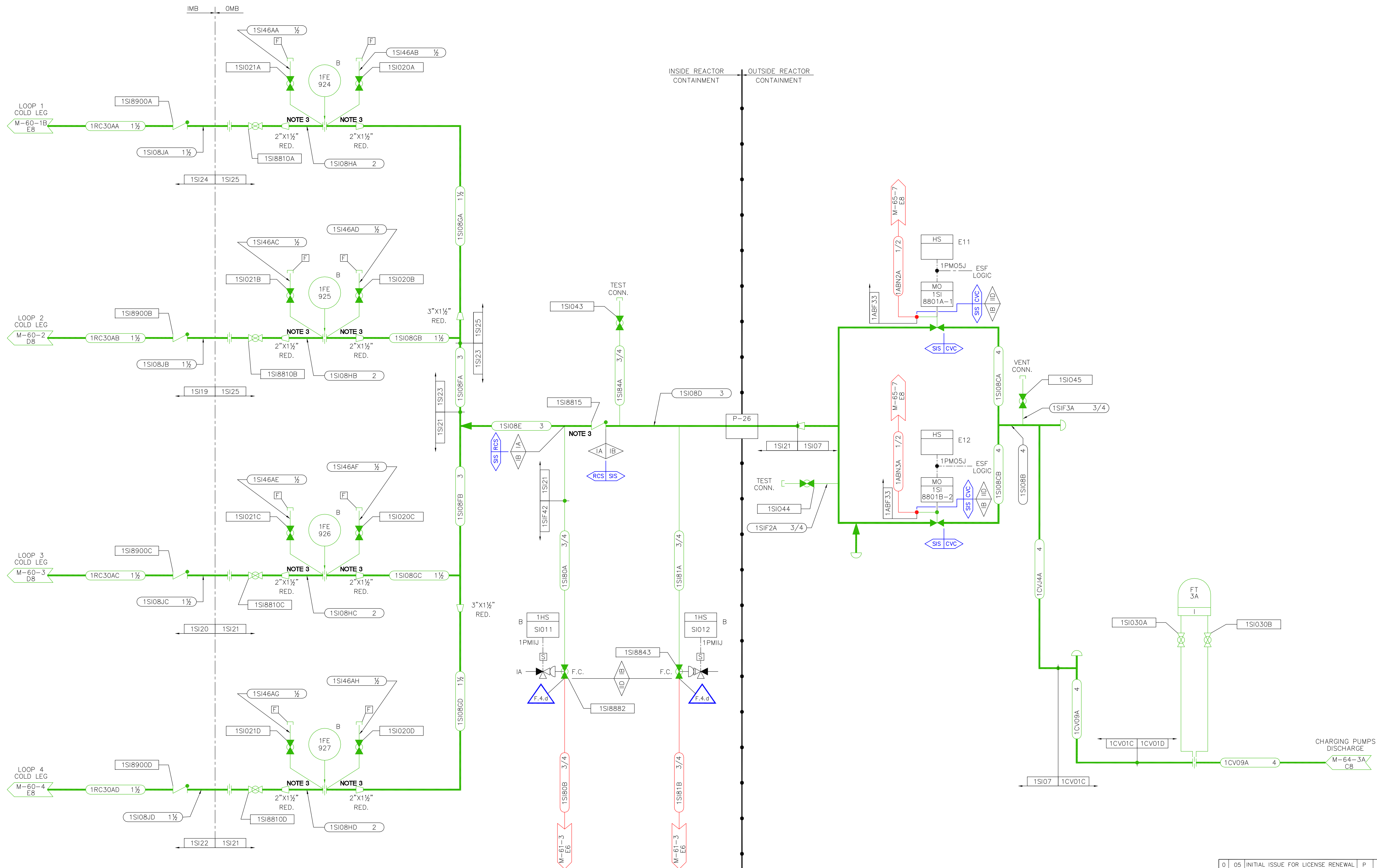
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A
29	13		J	W	R
			O	B	P
			D		
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF					
SAFETY INJECTION					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-61		SHEET 1A			0



- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-61, SHEET 1B, REVISION BE.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 SFC- SPENT FUEL COOLING SYSTEM  
 SIS- SAFETY INJECTION SYSTEM
  - THE REFUELING WATER STORAGE TANK EXTERIOR REINFORCED CONCRETE STRUCTURE IS EVALUATED WITH THE RWST FOUNDATION AND TUNNEL FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  - THE RWST ELECTRIC HEATER ELEMENT DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J O D	C W B	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF SAFETY INJECTION UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-61		SHEET 1B		0



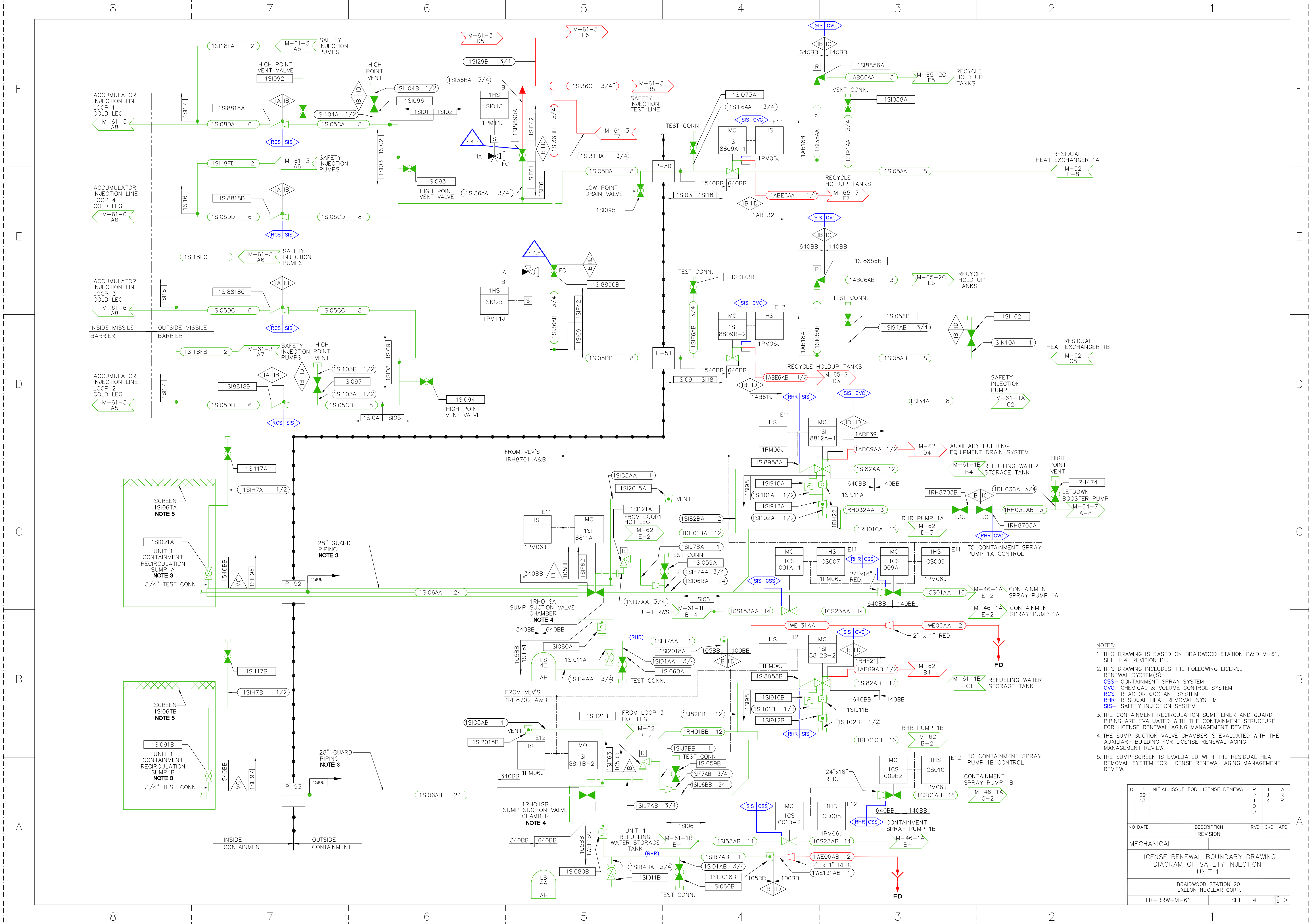


NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-61, SHEET 2, REVISION A1.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 SIS- SAFETY INJECTION SYSTEM  
 3. RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J J K	A R P
NO DATE	DESCRIPTION	RVD	CKD
	REVISION	APD	
MECHANICAL			
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF SAFETY INJECTION UNIT 1			
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.			
LR-BRW-M-61	SHEET 2		0

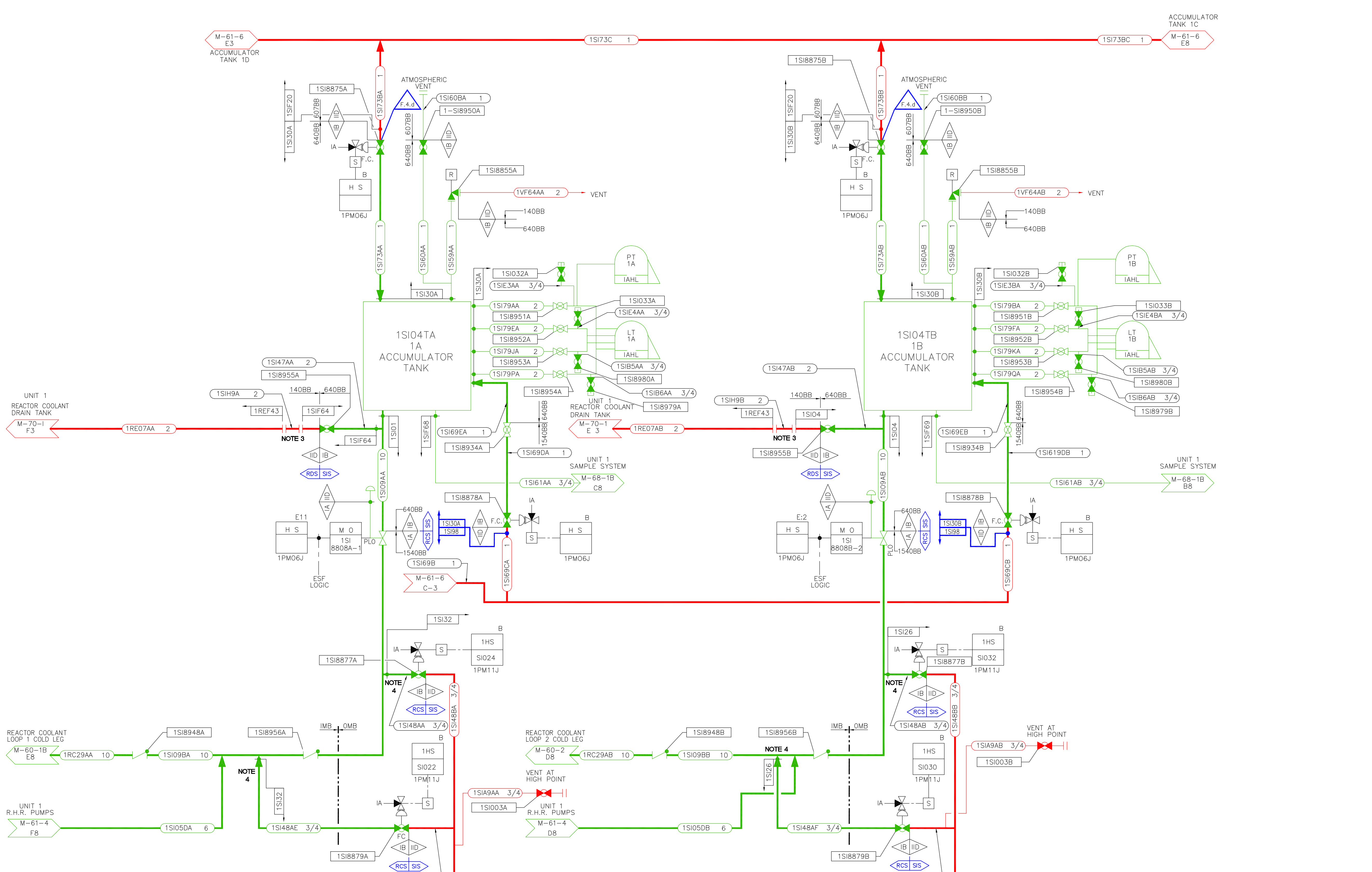






- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-61, SHEET 4, REVISION BE.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CSS- CONTAINMENT SPRAY SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RHR- RESIDUAL HEAT REMOVAL SYSTEM  
 SIS- SAFETY INJECTION SYSTEM
  - THE CONTAINMENT RECIRCULATION SUMP LINER AND GUARD PIPING ARE EVALUATED WITH THE CONTAINMENT STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE SUMP SUCTION VALVE CHAMBER IS EVALUATED WITH THE AUXILIARY BUILDING VALVE CHAMBER FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE SUMP SCREEN IS EVALUATED WITH THE RESIDUAL HEAT REMOVAL SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		J	K	R
			O		P
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF SAFETY INJECTION UNIT 1					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-61			SHEET 4		0

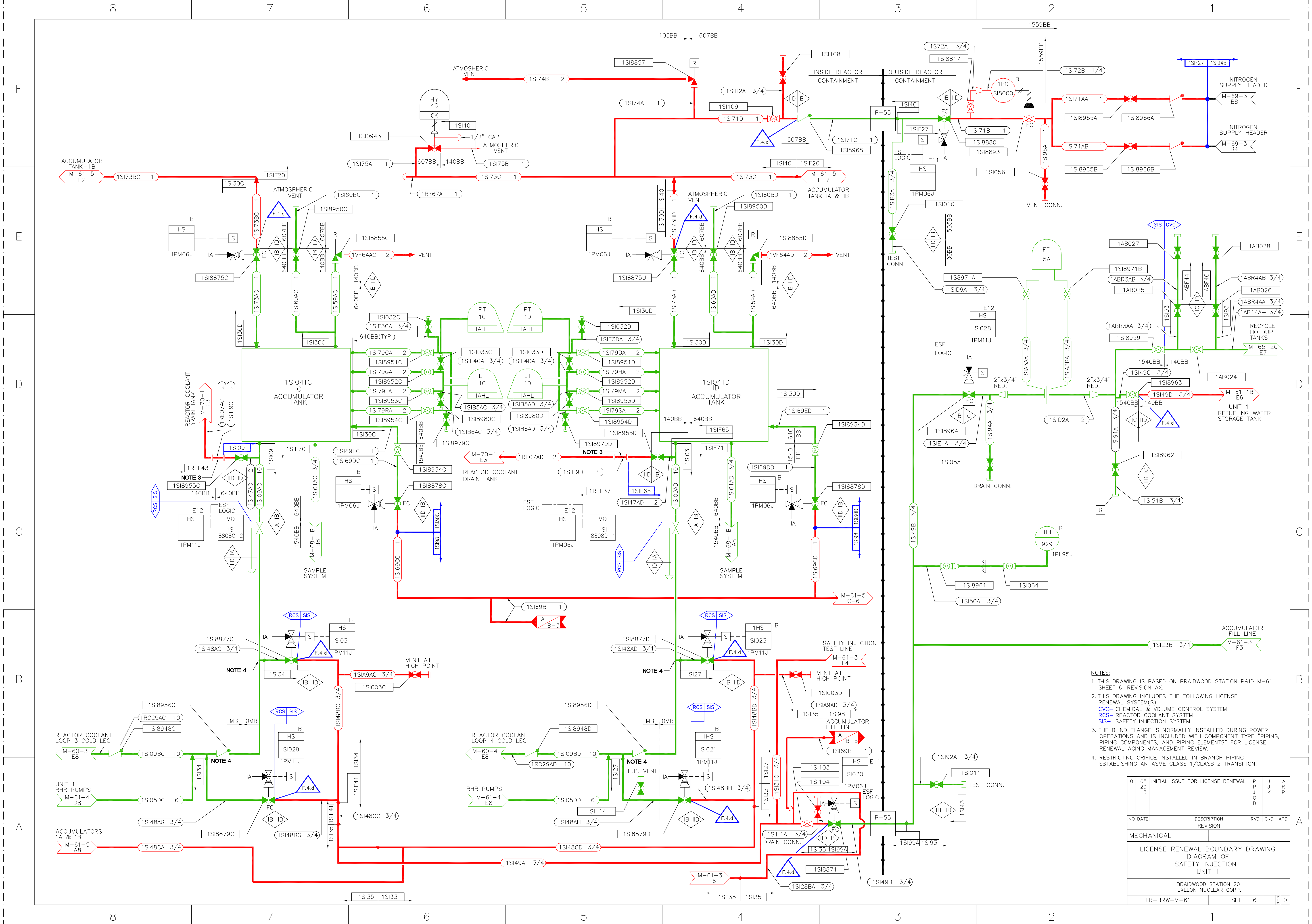


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-61, SHEET 5, REVISION AC.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 SIS- SAFETY INJECTION SYSTEM
- THIS SPOOL PIECE IS REPLACED BY A BLIND FLANGE WHICH IS NORMALLY INSTALLED DURING POWER OPERATIONS, AND IS INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	G	A
29	13		J	W	R
			O	B	P
			D		
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF SAFETY INJECTION					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-61		SHEET 5	0		

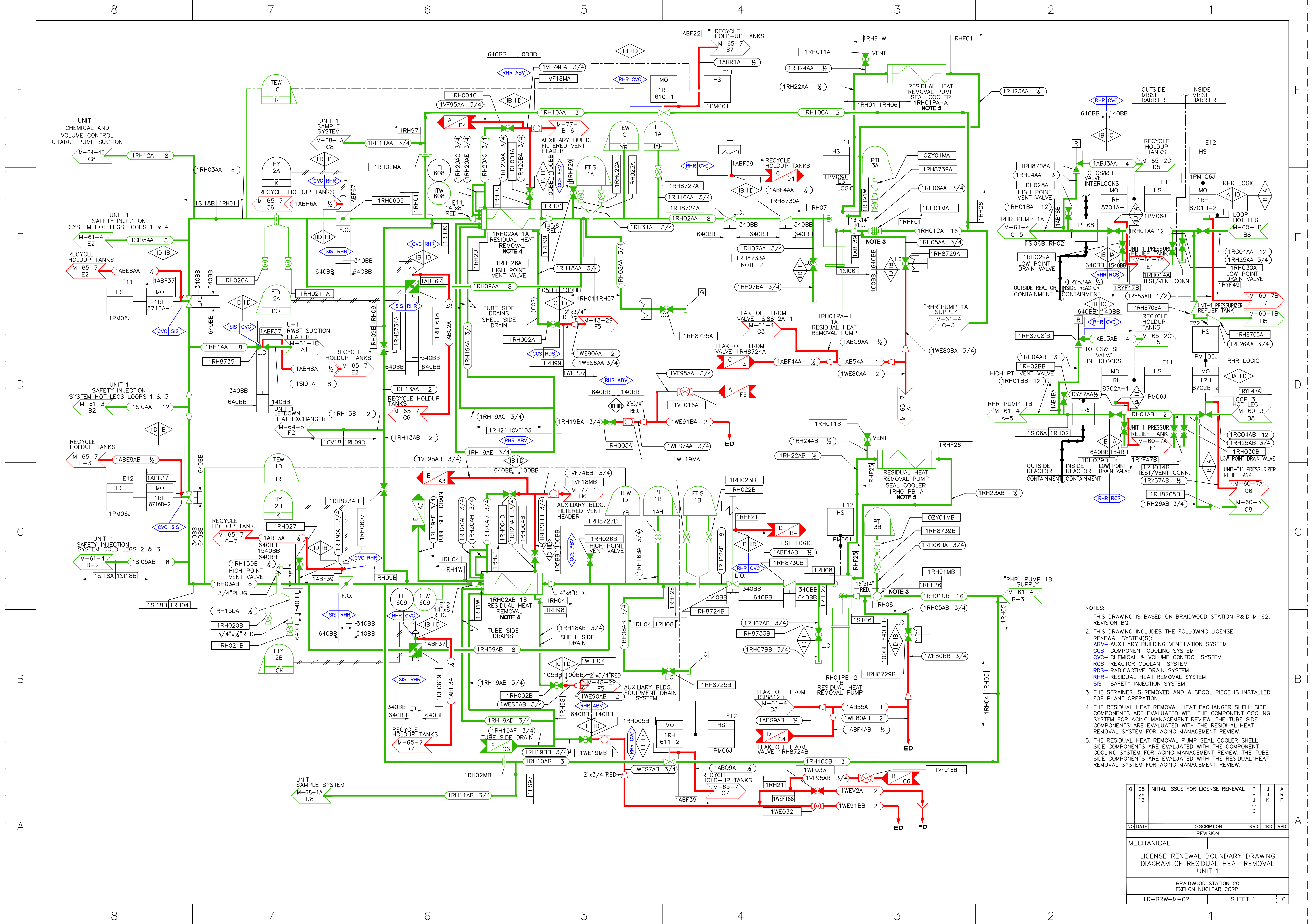




- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-61, SHEET 6, REVISION AX.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 SIS- SAFETY INJECTION SYSTEM
  3. THE BLIND FLANGE IS NORMALLY INSTALLED DURING POWER OPERATIONS AND IS INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		P	J	R
			J	K	
			O		
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF					
SAFETY INJECTION					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-61			SHEET 6		0

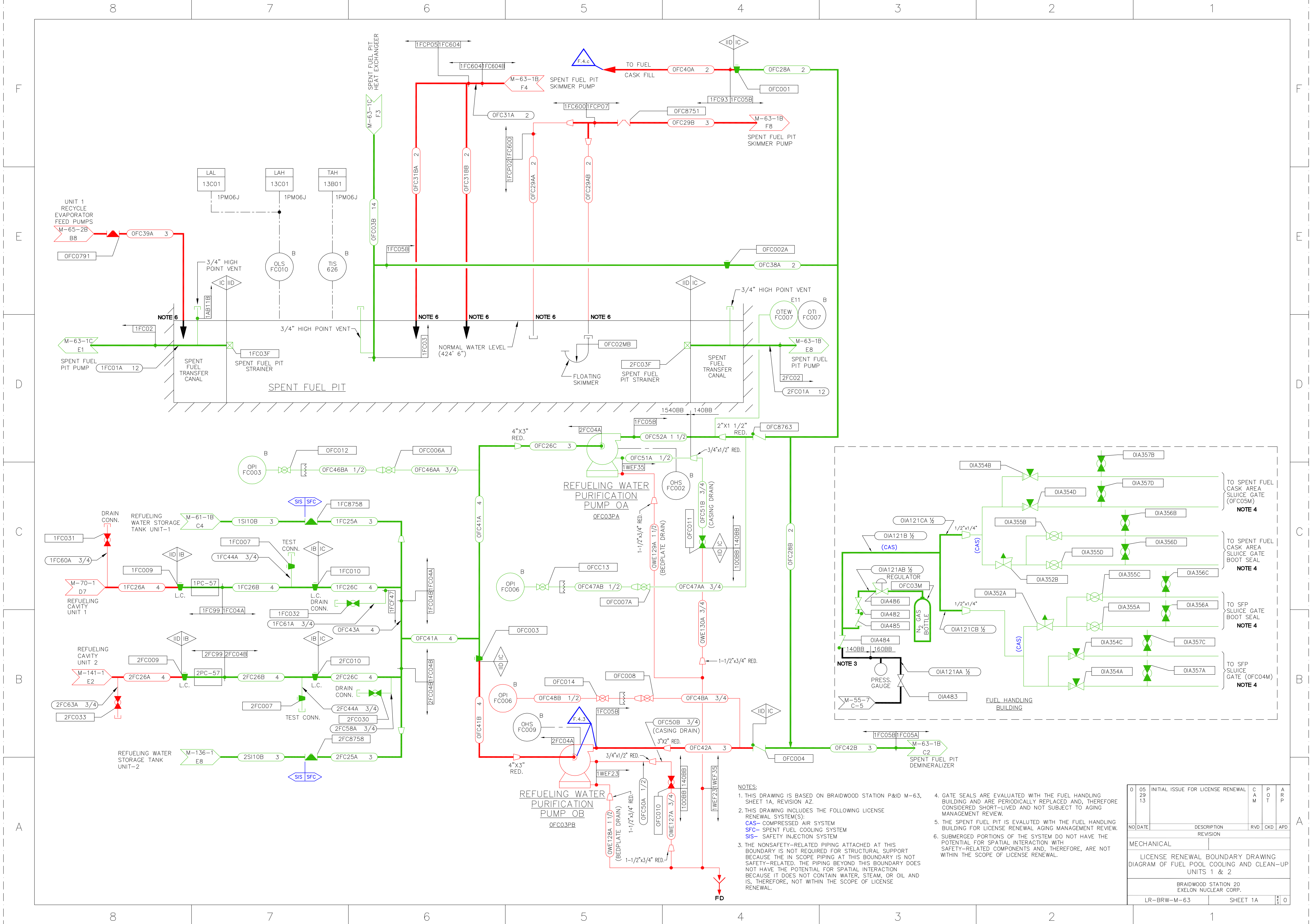




- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-62, REVISION BQ.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CCS- COMPONENT COOLING SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 RHR- RESIDUAL HEAT REMOVAL SYSTEM  
 SIS- SAFETY INJECTION SYSTEM
  3. THE STRAINER IS REMOVED AND A SPOOL PIECE IS INSTALLED FOR PLANT OPERATION.
  4. THE RESIDUAL HEAT REMOVAL HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RESIDUAL HEAT REMOVAL SYSTEM FOR AGING MANAGEMENT REVIEW.
  5. THE RESIDUAL HEAT REMOVAL PUMP SEAL COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RESIDUAL HEAT REMOVAL SYSTEM FOR AGING MANAGEMENT REVIEW.

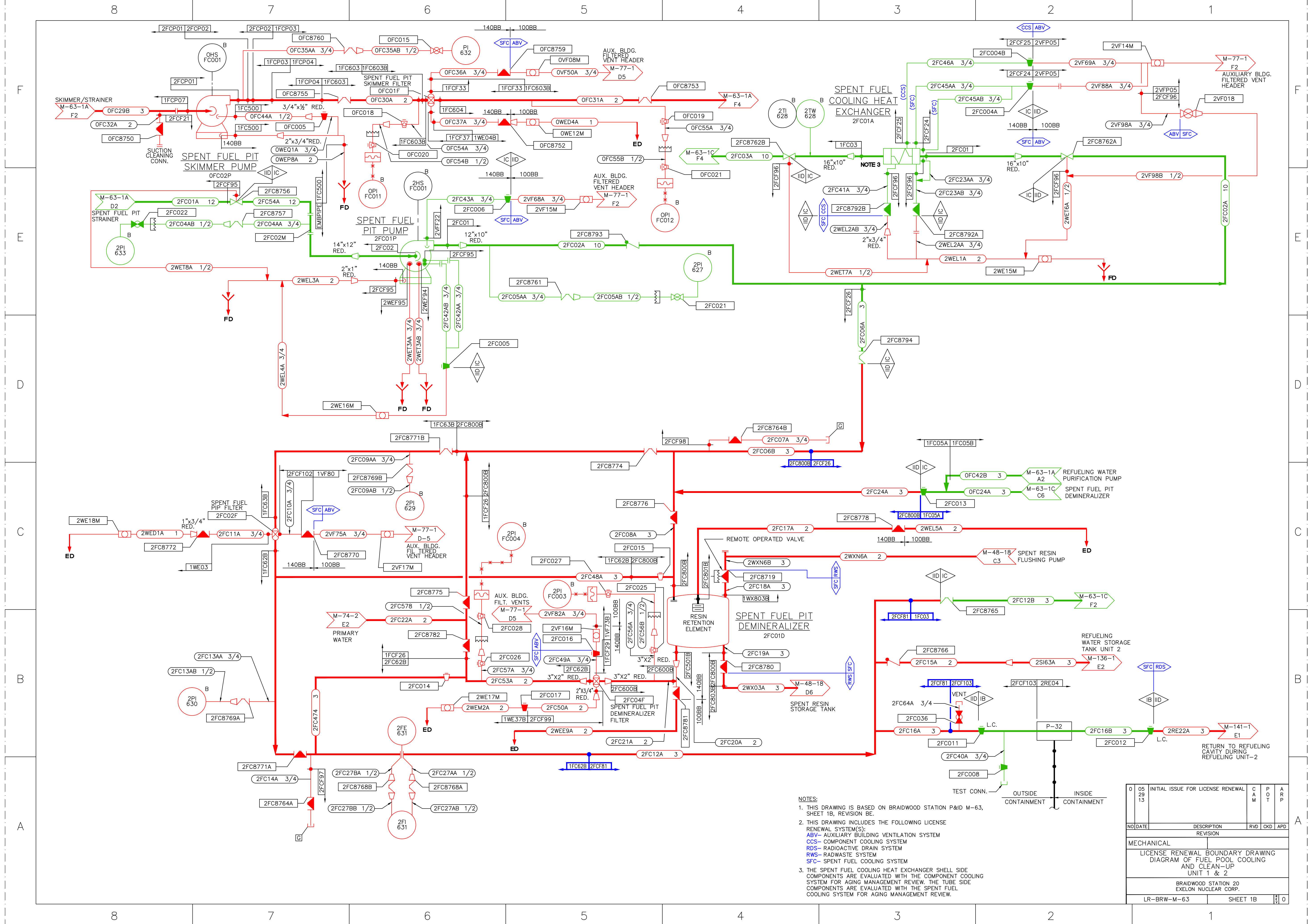
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		J	K	R
			O		P
			D		
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF RESIDUAL HEAT REMOVAL UNIT 1					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-62 SHEET 1 0					





- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-63, SHEET 1A, REVISION AZ.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CAS- COMPRESSED AIR SYSTEM  
 SFC- SPENT FUEL COOLING SYSTEM  
 SIS- SAFETY INJECTION SYSTEM
  3. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  4. GATE SEALS ARE EVALUATED WITH THE FUEL HANDLING BUILDING AND ARE PERIODICALLY REPLACED AND, THEREFORE CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  5. THE SPENT FUEL PIT IS EVALUATED WITH THE FUEL HANDLING BUILDING FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  6. SUBMERGED PORTIONS OF THE SYSTEM DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED COMPONENTS AND, THEREFORE, ARE NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	C A M	P O T	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FUEL POOL COOLING AND CLEAN-UP UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-63	SHEET 1A	0		



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-63, SHEET 1B, REVISION BE.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CCS- COMPONENT COOLING SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 RWS- RADWASTE SYSTEM  
 SFC- SPENT FUEL COOLING SYSTEM  
 3. THE SPENT FUEL COOLING HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SPENT FUEL COOLING SYSTEM FOR AGING MANAGEMENT REVIEW.

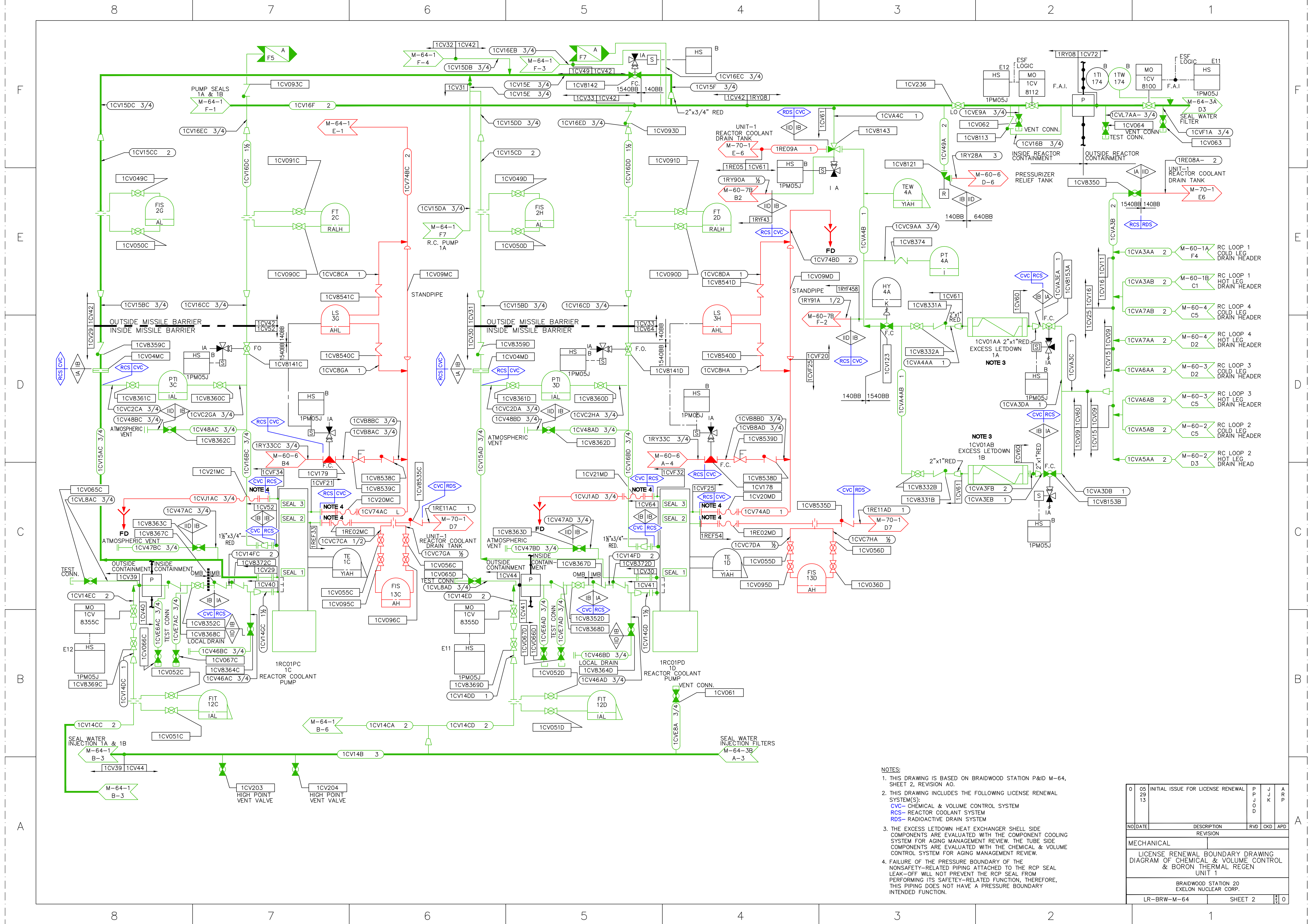
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL SHEET 1B, REVISION BE.	C A M	P O T	A R P	
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING OF FUEL POOL COOLING AND CLEAN-UP UNIT 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-63 SHEET 1B 0					











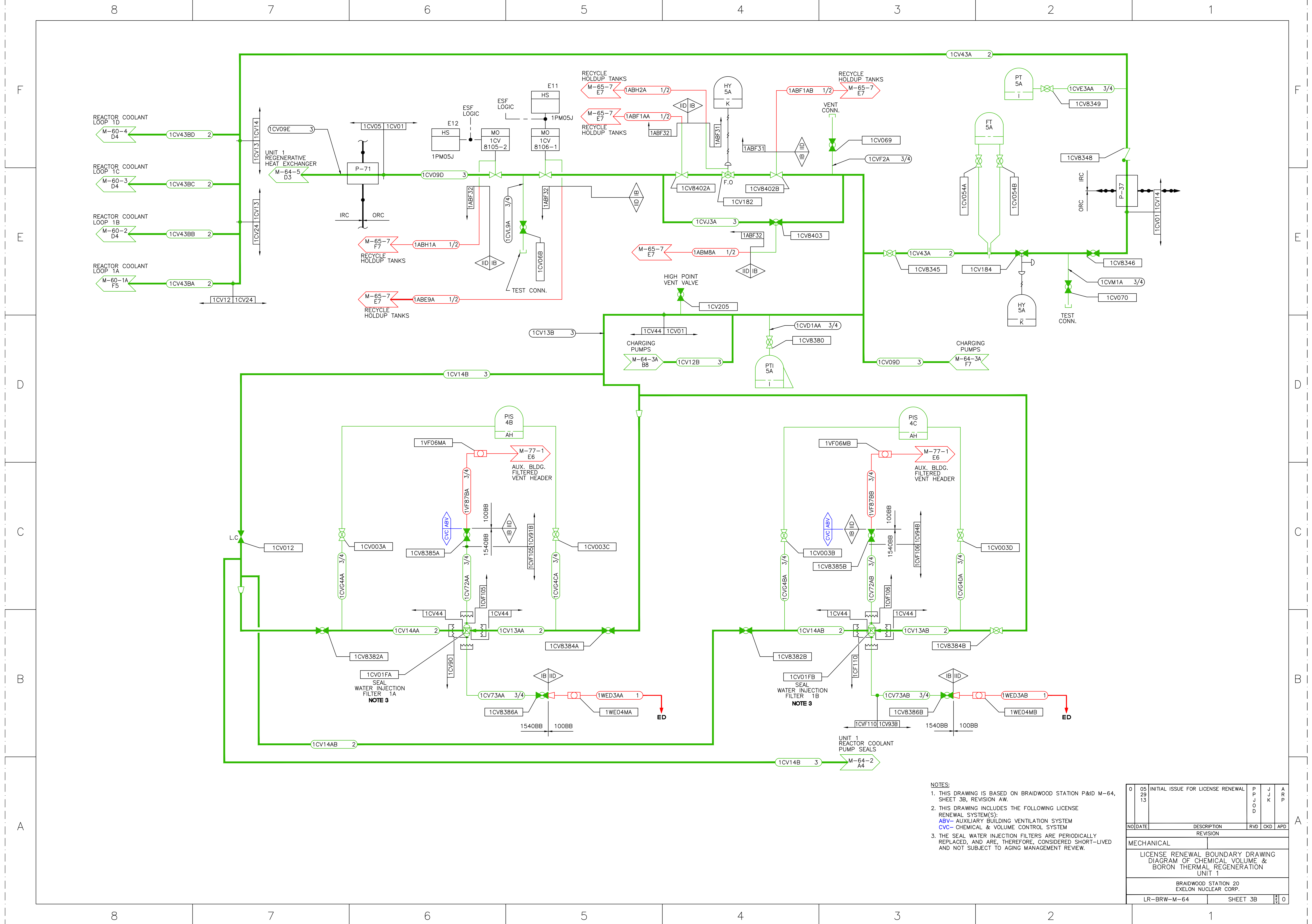
- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-64, SHEET 2, REVISION A0.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM
  3. THE EXCESS LETDOWN HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  4. FAILURE OF THE PRESSURE BOUNDARY OF THE NONSAFETY-RELATED PIPING ATTACHED TO THE RCP SEAL LEAK-OFF WILL NOT PREVENT THE RCP SEAL FROM PERFORMING ITS SAFETY-RELATED FUNCTION, THEREFORE, THIS PIPING DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
	29		P	J	J	P
	13		O	K	K	P
NO DATE		DESCRIPTION	RVD	CKD	APD	
REVISION						
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEMICAL & VOLUME CONTROL & BORON THERMAL REGEN UNIT 1						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-64		SHEET 2		0		







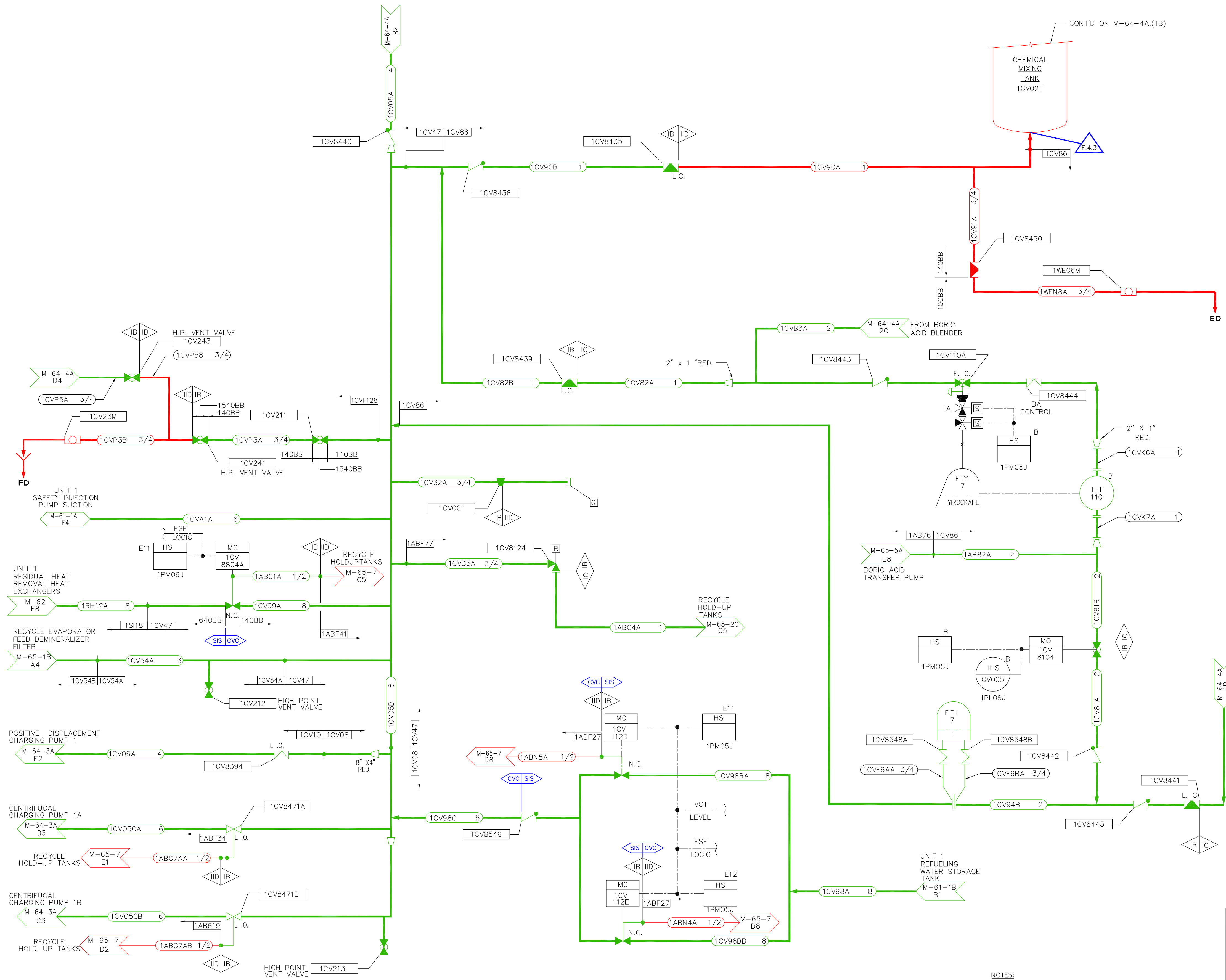


NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-64, SHEET 3B, REVISION AW.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 3. THE SEAL WATER INJECTION FILTERS ARE PERIODICALLY REPLACED, AND ARE, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
	29		P	J	R
	13		J	K	P
			O		
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEMICAL VOLUME & BORON THERMAL REGENERATION UNIT 1					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-64		SHEET 3B		0	



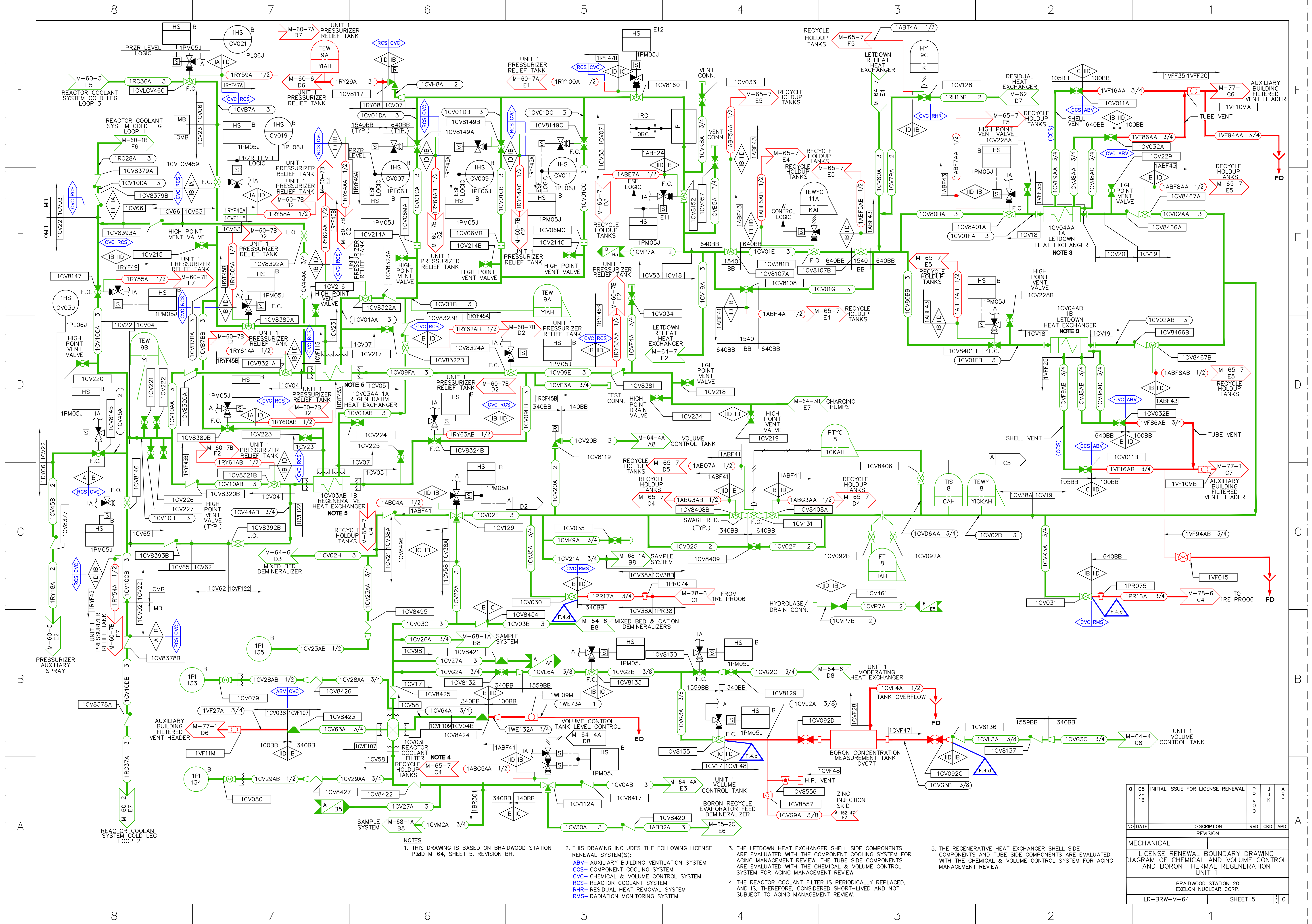




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-64, SHEET 4B, REVISION H.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 SIS- SAFETY INJECTION SYSTEM

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		J	K	R
			O		P
			D		
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF CHEMICAL & VOLUME CONTROL					
& BORON THERMAL REGENERATION					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-64		SHEET 4B			0

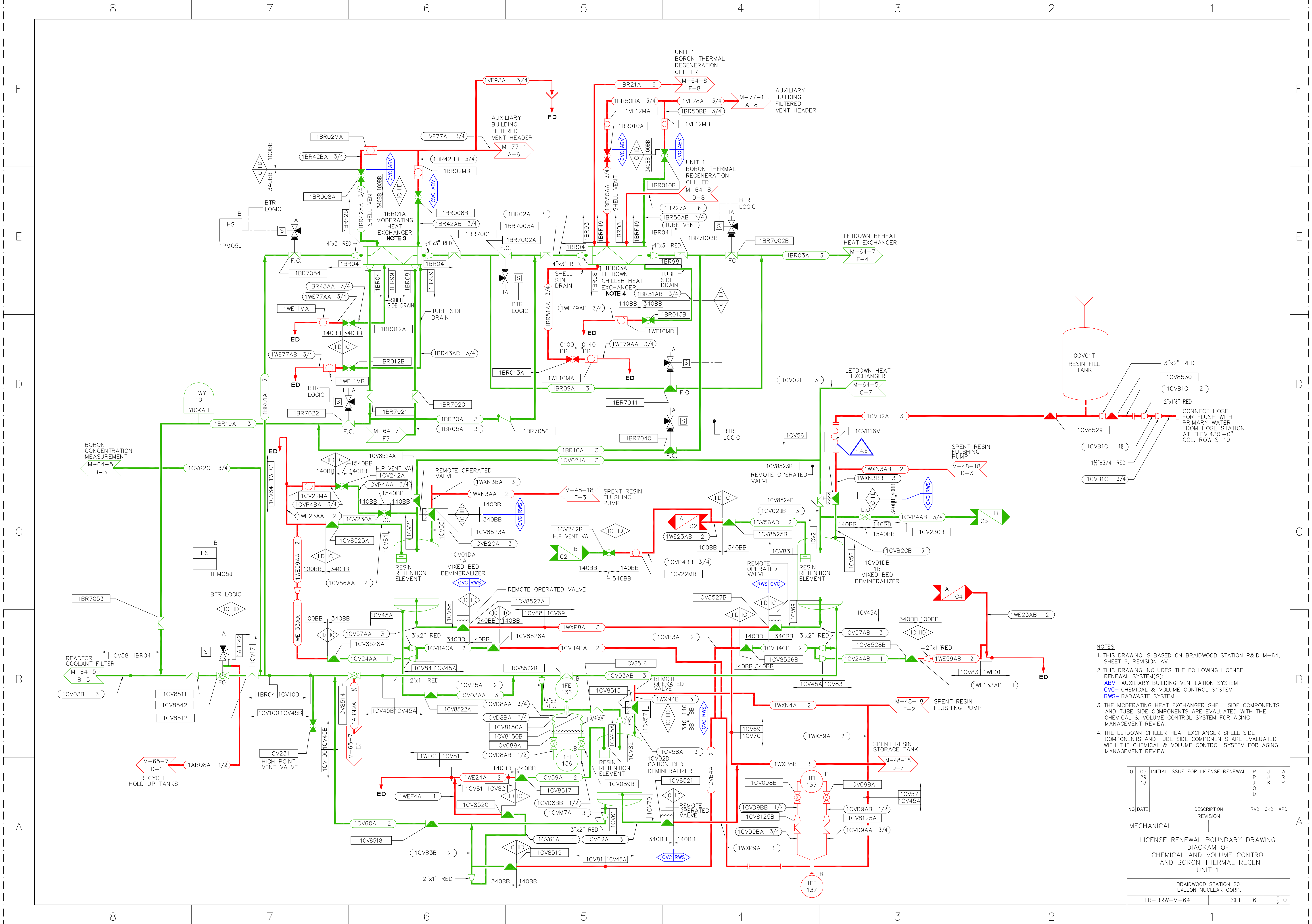




- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-64, SHEET 5, REVISION BH.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CCS- COMPONENT COOLING SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RHR- RESIDUAL HEAT REMOVAL SYSTEM  
 RMS- RADIATION MONITORING SYSTEM
  3. THE LETDOWN HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  4. THE REACTOR COOLANT FILTER IS PERIODICALLY REPLACED, AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  5. THE REGENERATIVE HEAT EXCHANGER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
		P	J	J	R
		J	K		
		O	D		
NO DATE	DESCRIPTION	RVD	CKD	APD	
	REVISION				
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF CHEMICAL AND VOLUME CONTROL					
AND BORON THERMAL REGENERATION					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-64 SHEET 5					

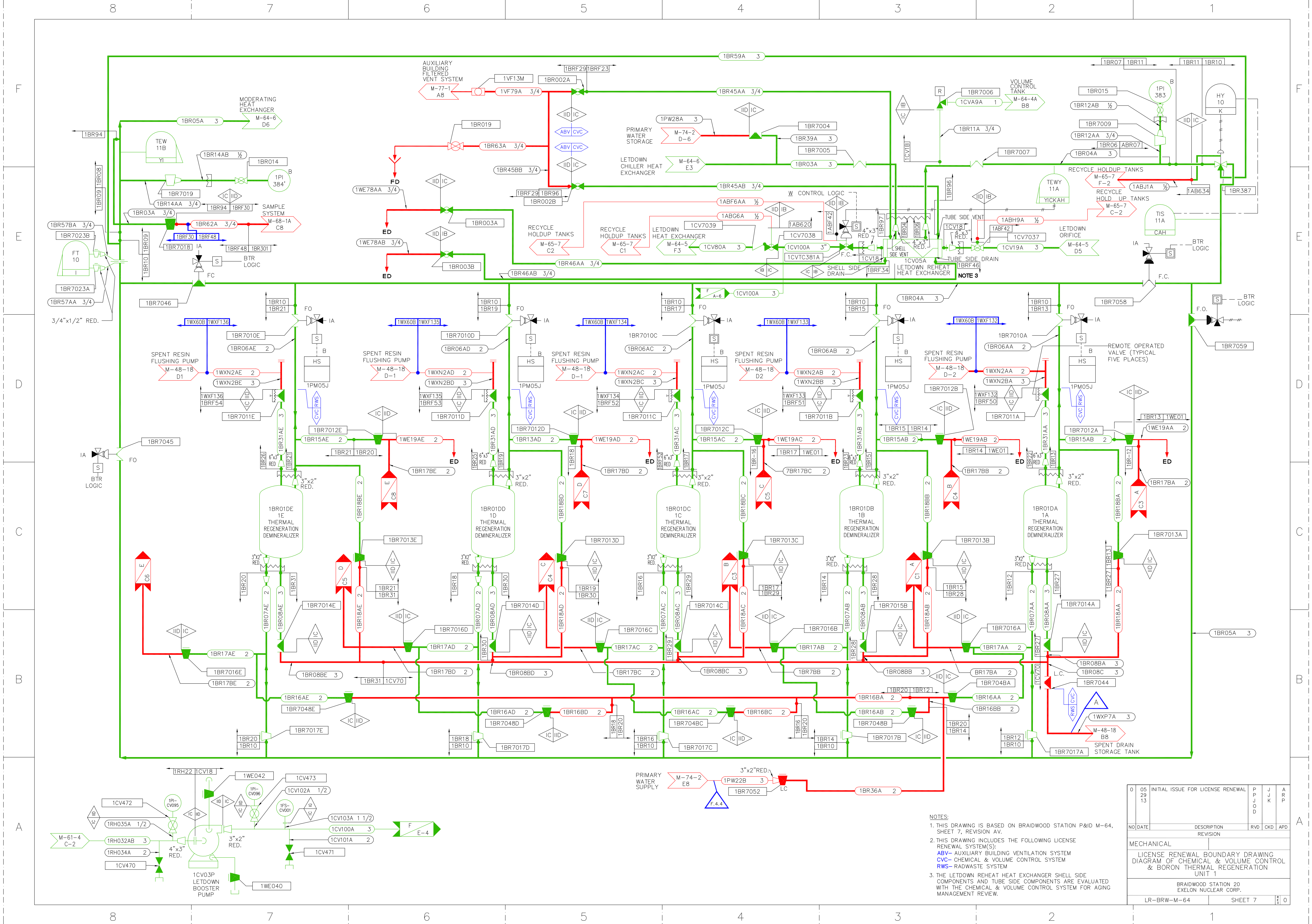




- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-64, SHEET 6, REVISION AV.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RWS- RADWASTE SYSTEM
  - THE MODERATING HEAT EXCHANGER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE LETDOWN CHILLER HEAT EXCHANGER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		P	J	R
			O	K	P
			D		
NO	DATE	DESCRIPTION	RVB	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF					
CHEMICAL AND VOLUME CONTROL					
AND BORON THERMAL REGEN					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-64 SHEET 6 0					



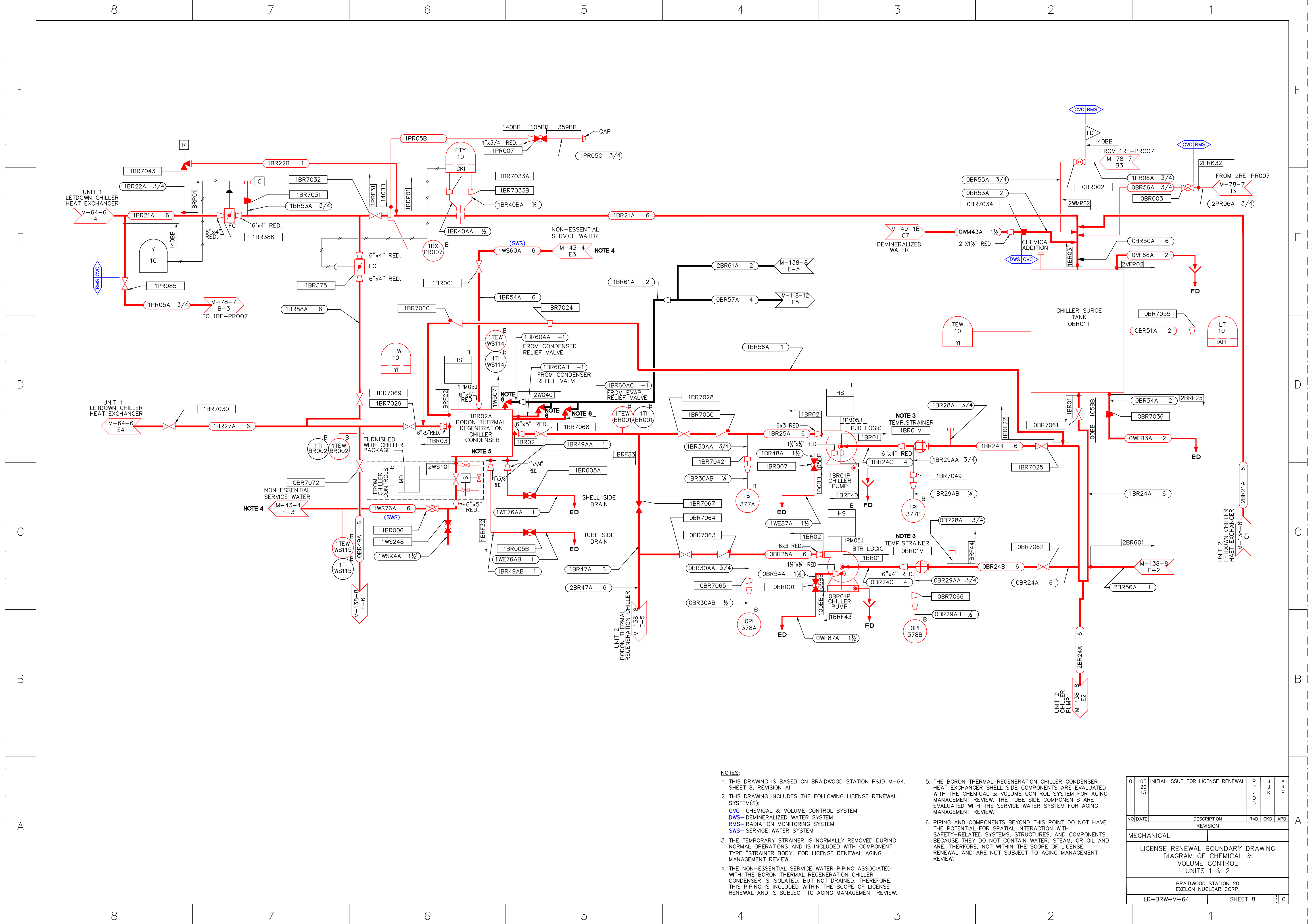


NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-64, SHEET 7, REVISION AV.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RWS- RADWASTE SYSTEM
- THE LETDOWN REHEAT HEAT EXCHANGERS SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J J K	A R P
NO DATE	DESCRIPTION	RVD	CKD
	REVISION	APD	
MECHANICAL			
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEMICAL & VOLUME CONTROL & BORON THERMAL REGENERATION UNIT 1			
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.			
LR-BRW-M-64	SHEET 7		0

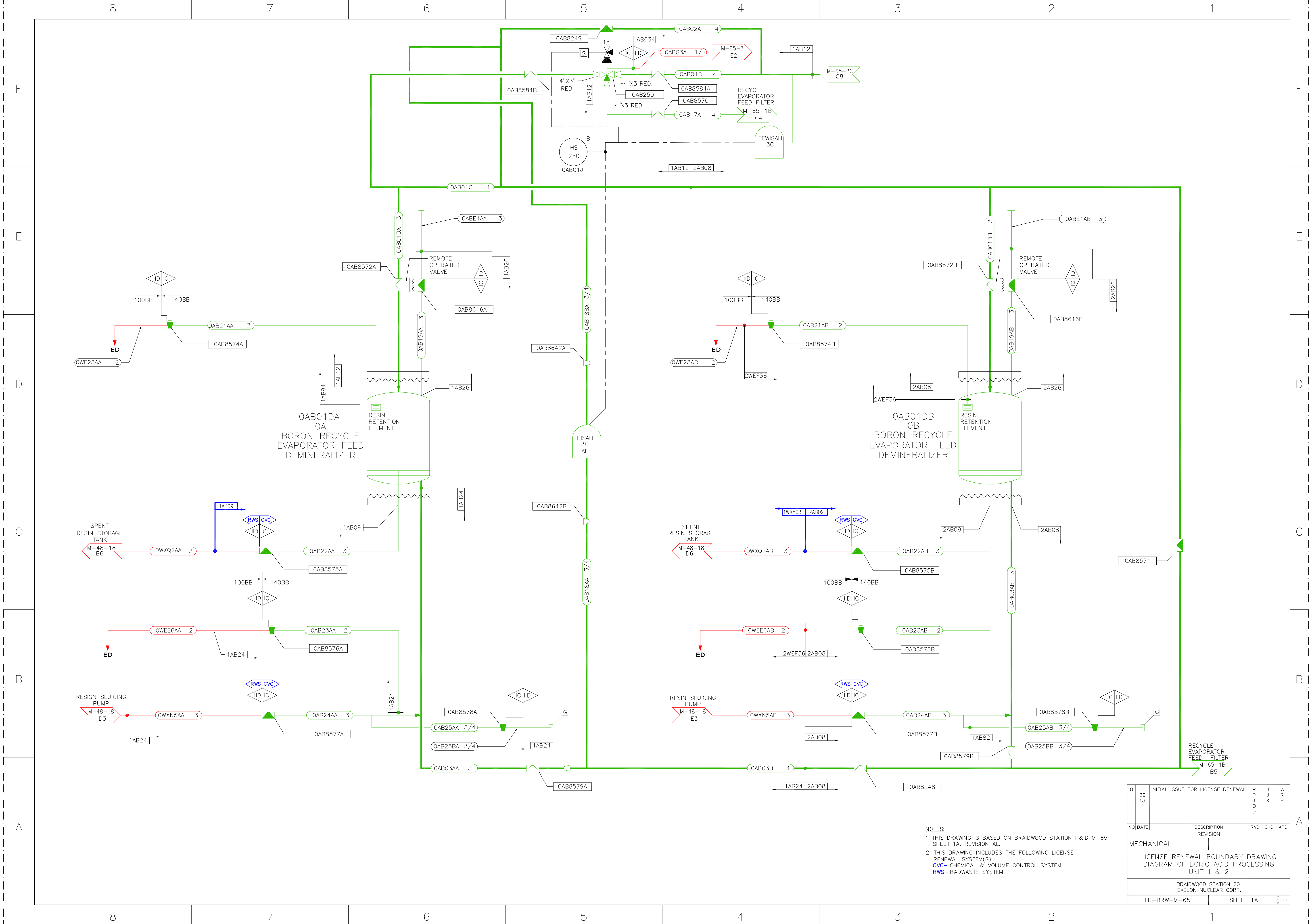




**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-64, SHEET 8, REVISION A1.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 DWS- DEMINERALIZED WATER SYSTEM  
 RMS- RADIATION MONITORING SYSTEM  
 SWS- SERVICE WATER SYSTEM
- THE TEMPORARY STRAINER IS NORMALLY REMOVED DURING NORMAL OPERATIONS AND IS INCLUDED WITH COMPONENT TYPE "STRAINER BODY" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- THE NON-ESSENTIAL SERVICE WATER PIPING ASSOCIATED WITH THE BORON THERMAL REGENERATION CHILLER CONDENSER IS ISOLATED, BUT NOT DRAINED. THEREFORE, THIS PIPING IS INCLUDED WITHIN THE SCOPE OF LICENSE RENEWAL AND IS SUBJECT TO AGING MANAGEMENT REVIEW.
- THE BORON THERMAL REGENERATION CHILLER CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
- PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		P	J	R
			J	K	
			O		
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEMICAL & VOLUME CONTROL UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-64		SHEET 8		0	



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-65, SHEET 1A, REVISION AL.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RWS- RADWASTE SYSTEM

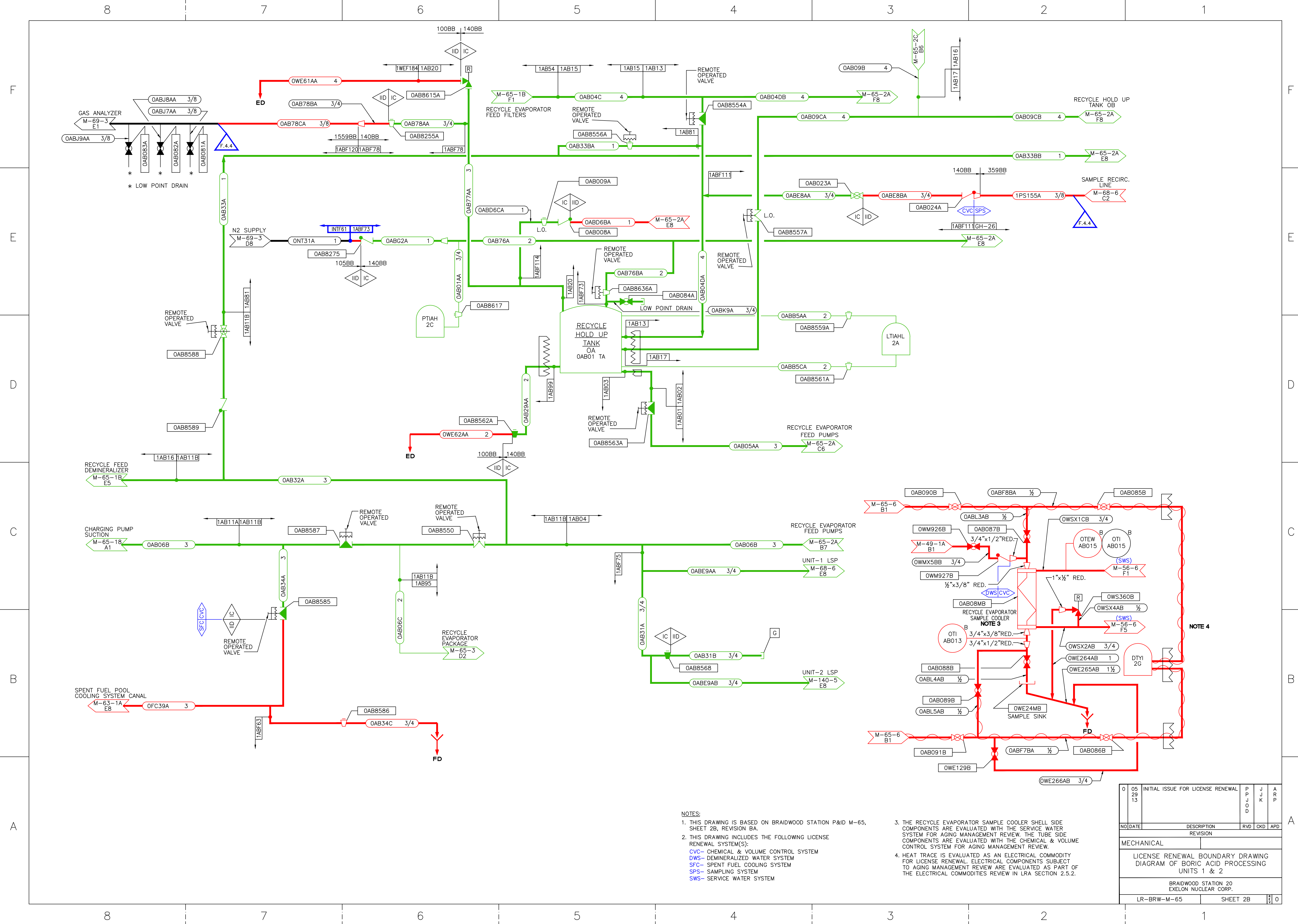
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J J O D	A R P
NO DATE	DESCRIPTION	RVD	CKD
	REVISION	APD	
MECHANICAL			
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF BORIC ACID PROCESSING UNIT 1 & 2			
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.			
LR-BRW-M-65	SHEET 1A		0







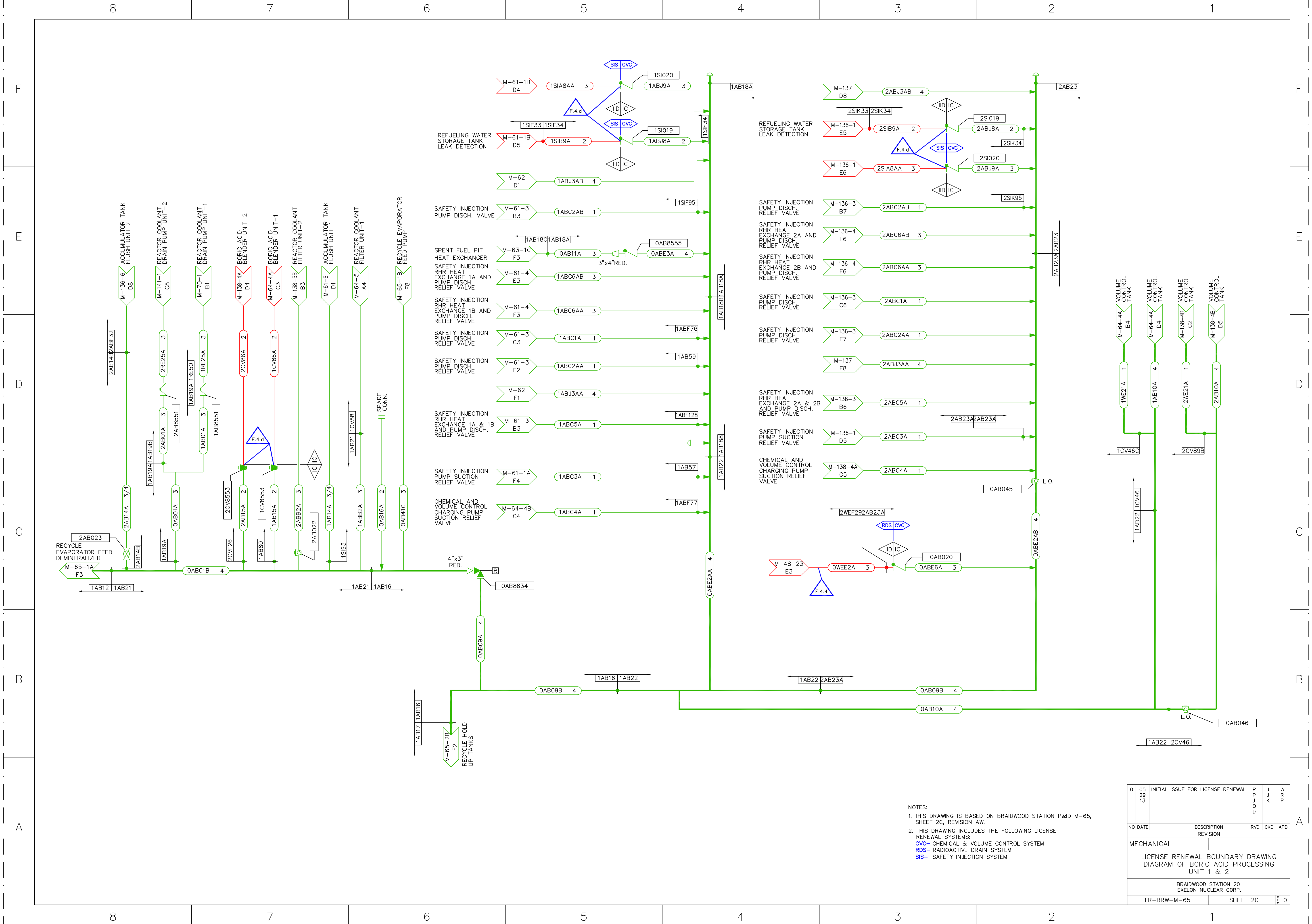




**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-65, SHEET 2B, REVISION BA.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC - CHEMICAL & VOLUME CONTROL SYSTEM  
 DWS - DEMINERALIZED WATER SYSTEM  
 SFC - SPENT FUEL COOLING SYSTEM  
 SPS - SAMPLING SYSTEM  
 SWS - SERVICE WATER SYSTEM
- THE RECYCLE EVAPORATOR SAMPLE COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
- HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
		J	J	R
		O	K	P
		D		
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF BORIC ACID PROCESSING UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-65	SHEET 2B			0



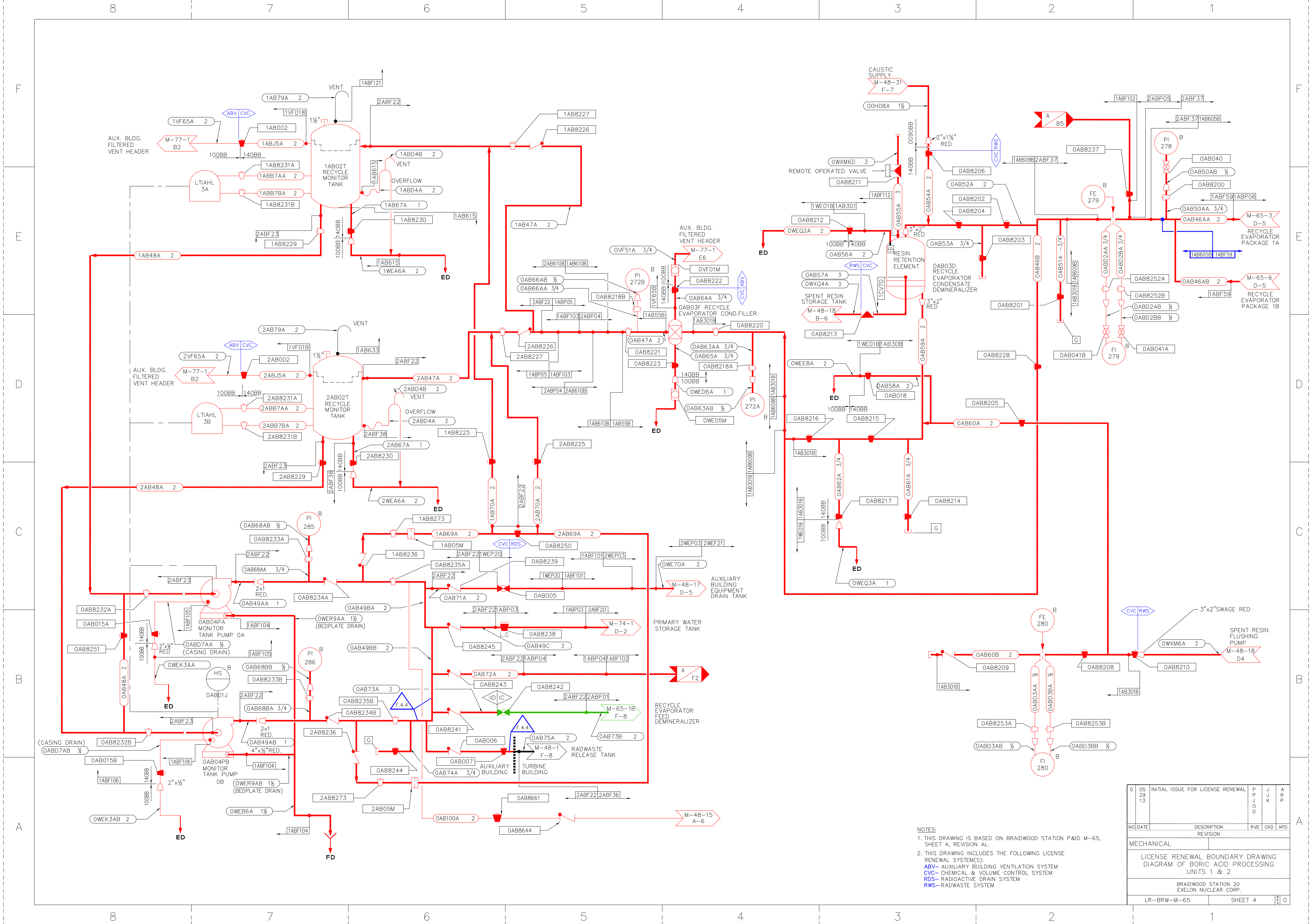
NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-65, SHEET 2C, REVISION AW.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 SIS- SAFETY INJECTION SYSTEM

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29		P	J	R
13		J	K	P
		O		
		D		
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF BORIC ACID PROCESSING UNIT 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-65	SHEET 2C			0





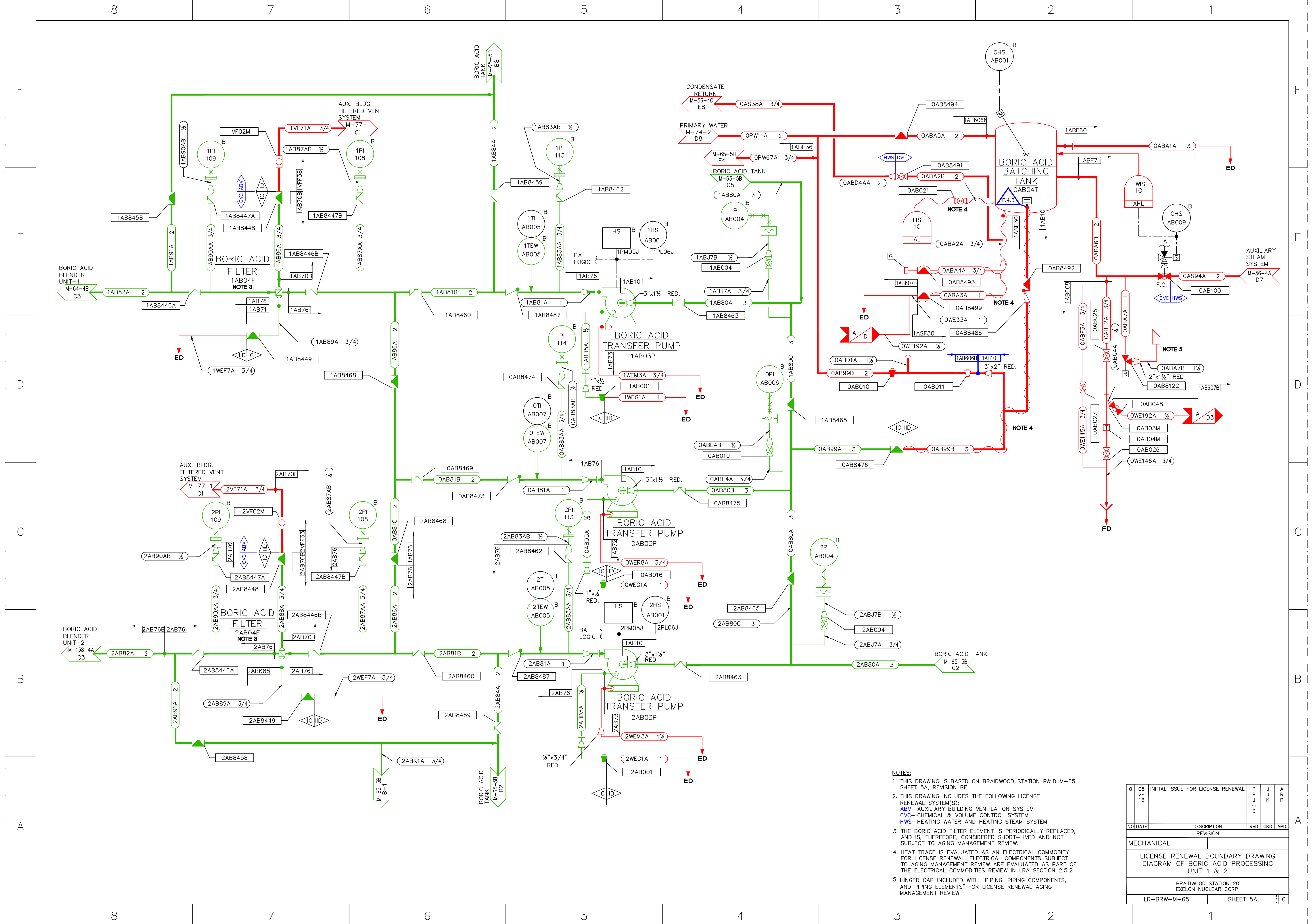




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-65, SHEET 4, REVISION AL.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 RWS- RADWASTE SYSTEM

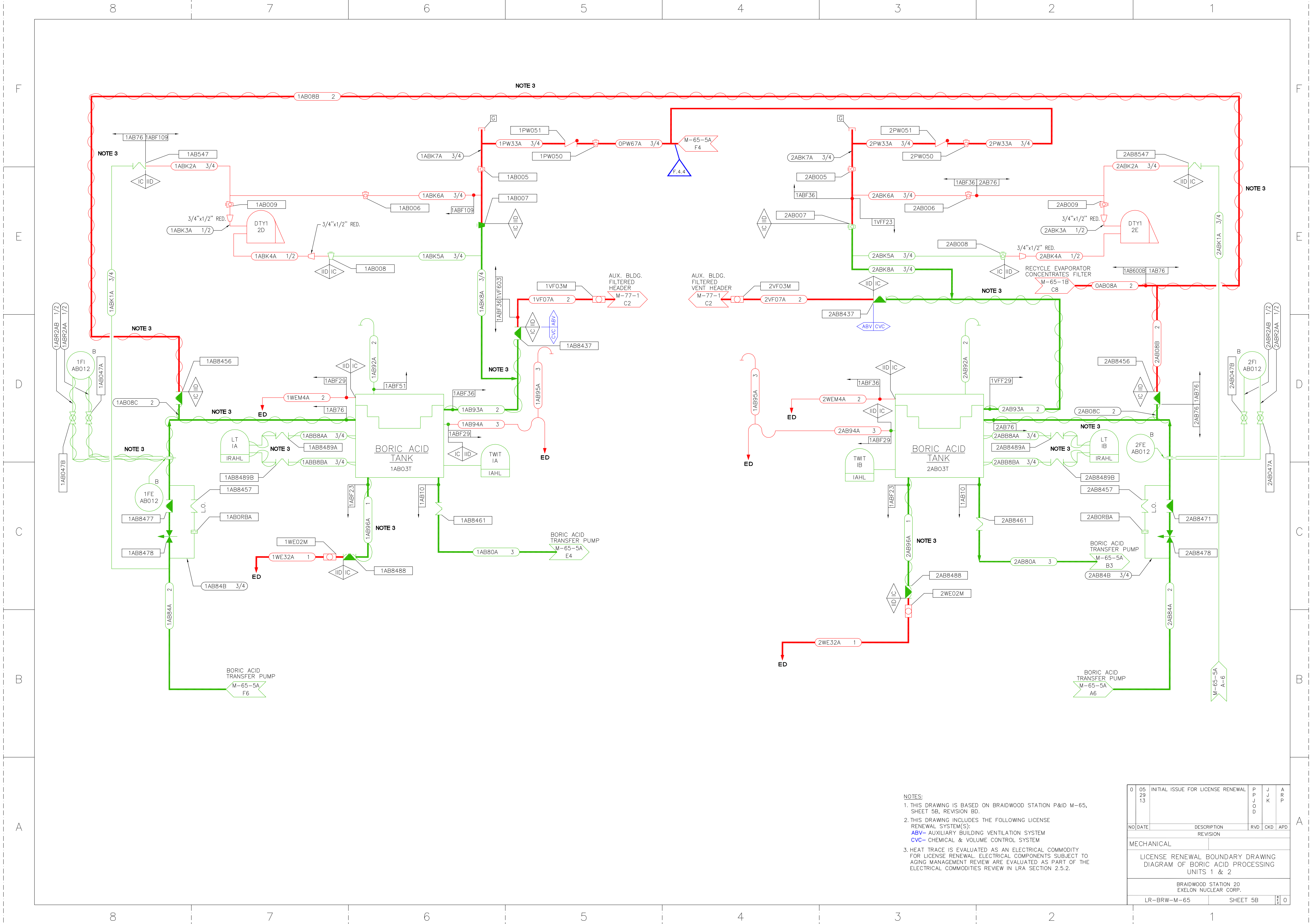
05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	
29		J	J	R	
13		O	K	P	
		D			
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF BORIC ACID PROCESSING UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-65		SHEET 4			0





- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-65, SHEET 5A, REVISION BE.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 HWS- HEATING WATER AND HEATING STEAM SYSTEM
  3. THE BORIC ACID FILTER ELEMENT IS PERIODICALLY REPLACED, AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  4. HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  5. HINGED CAP INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

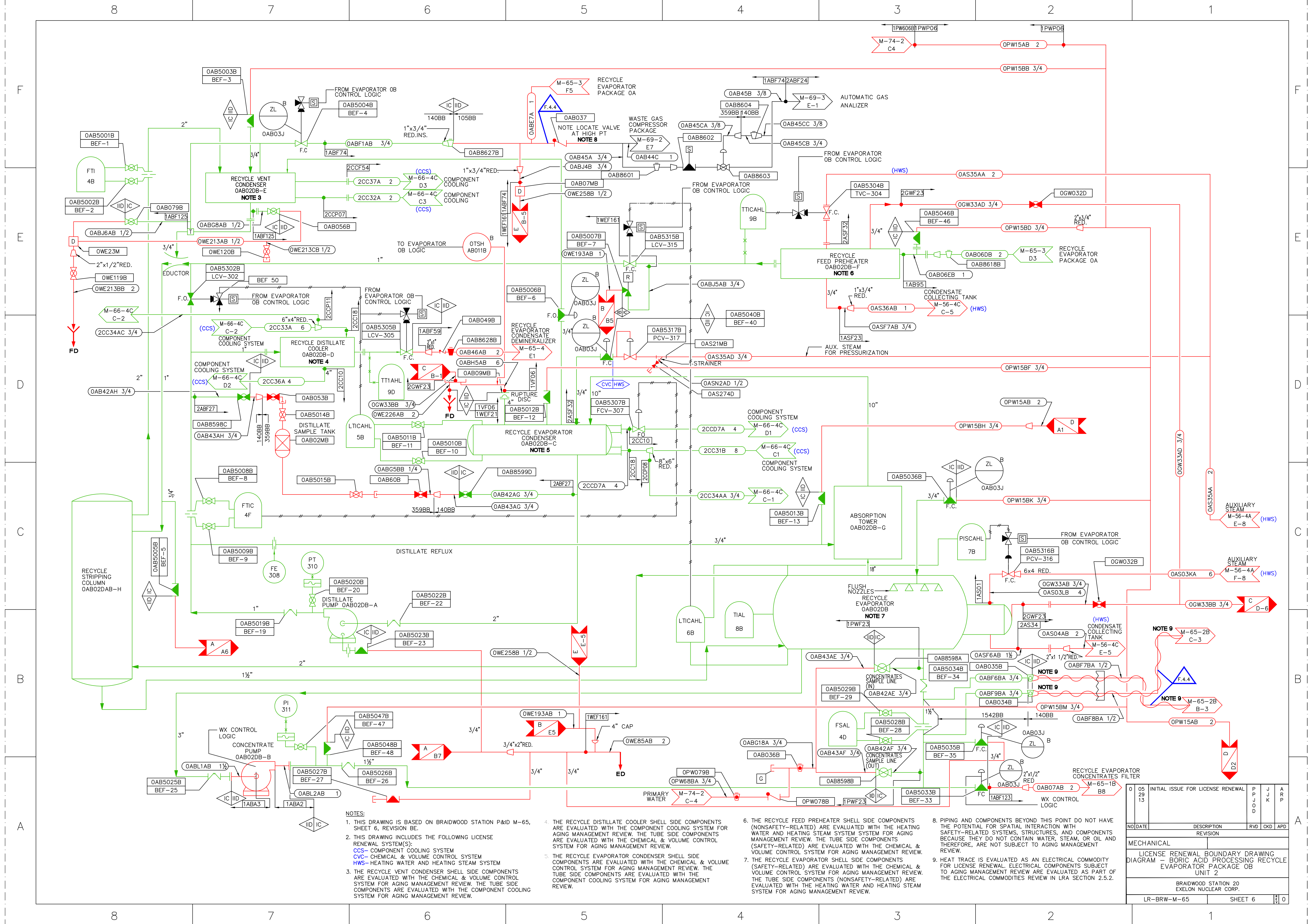
05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P J O D	J J K	A R P
NO/DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF BORIC ACID PROCESSING UNIT 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-65		SHEET 5A		0



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-65, SHEET 5B, REVISION BD.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 3. HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P L O D	J L K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF BORIC ACID PROCESSING UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-65	SHEET 5B	0		





- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-65, SHEET 6, REVISION BE.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS- COMPONENT COOLING SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 HWS- HEATING WATER AND HEATING STEAM SYSTEM
  - THE RECYCLE VENT CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE RECYCLE DISTILLATE COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE RECYCLE EVAPORATOR CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE RECYCLE FEED PREHEATER SHELL SIDE COMPONENTS (NONSAFETY-RELATED) ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS (SAFETY-RELATED) ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE RECYCLE EVAPORATOR SHELL SIDE COMPONENTS (NONSAFETY-RELATED) ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS (SAFETY-RELATED) ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW.
  - PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.

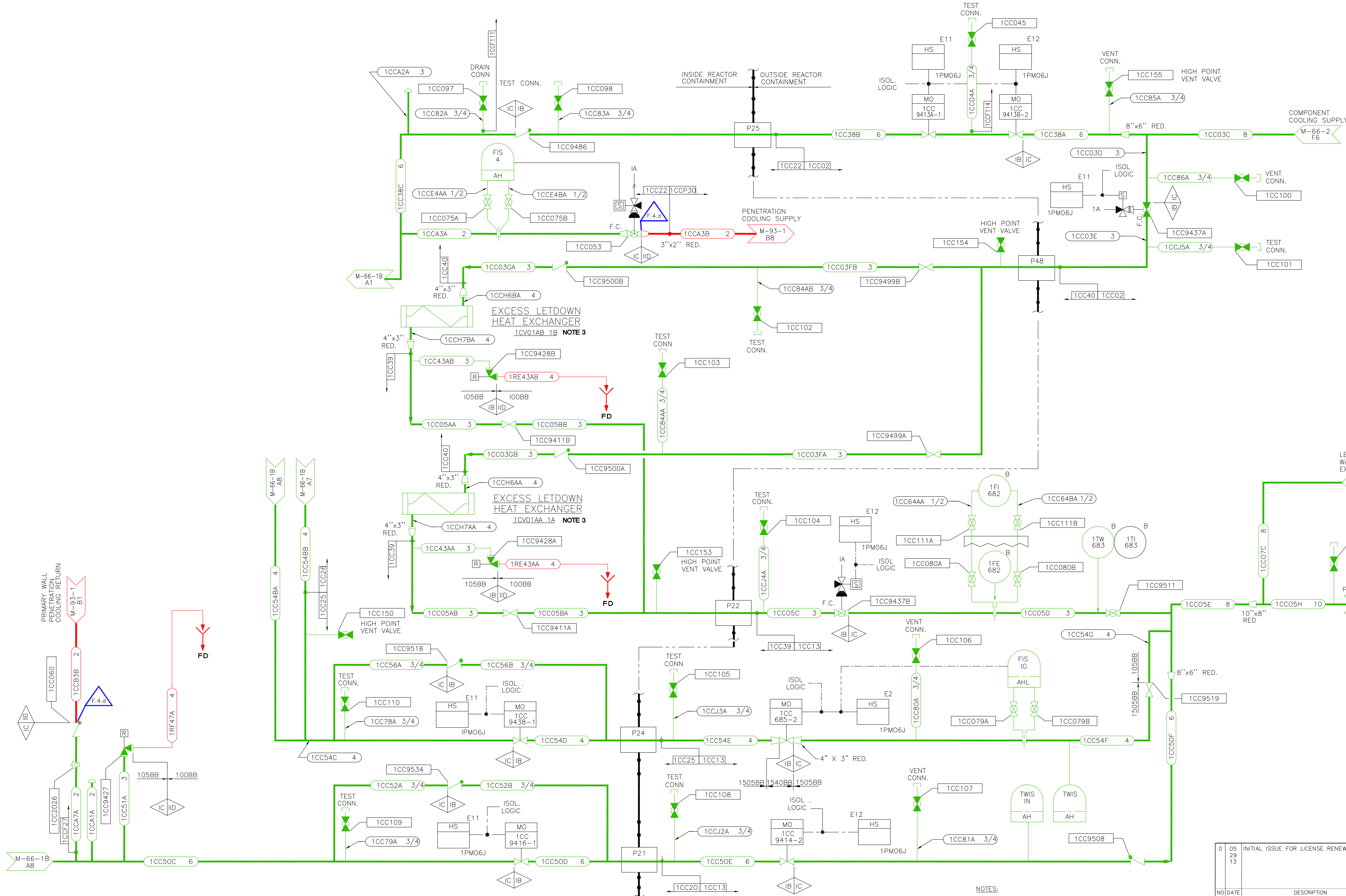
05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	J	A	R
NO/DATE	DESCRIPTION	RVD	CKD	APD		
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM - BORIC ACID PROCESSING RECYCLE EVAPORATOR PACKAGE OB UNIT 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-65 SHEET 6 0						







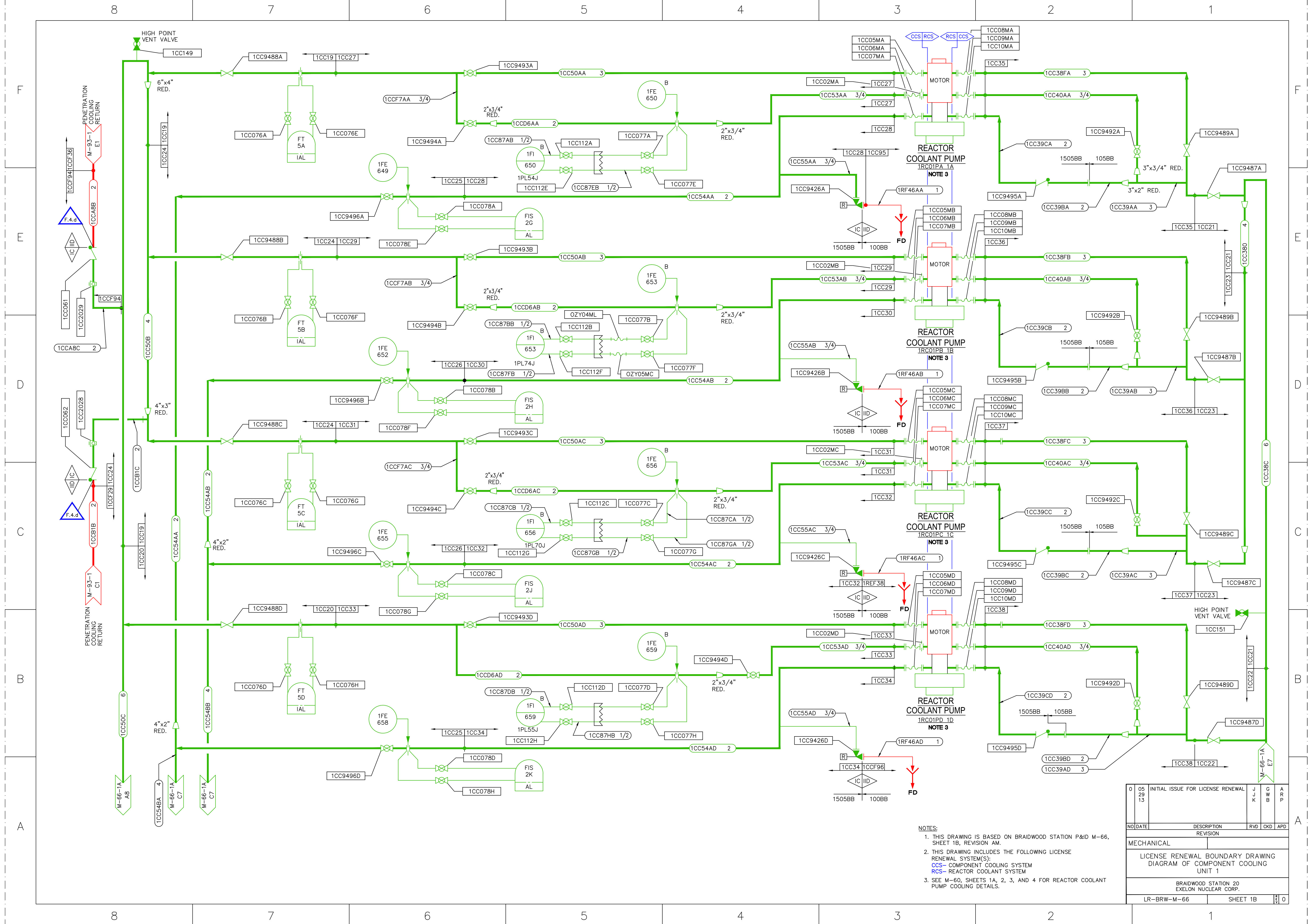




NOTES:  
 1. THIS DRAWING IS BASED ON BRAITHWOOD STATION P&ID M-66, SHEET 1A, REVISION AR.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS- COMPONENT COOLING SYSTEM  
 3. THE EXCESS LETDOWN HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.

05	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
29		K	W	R
13			B	P
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF COMPONENT COOLING				
UNIT 1				
BRAITHWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-66	SHEET 1A			0



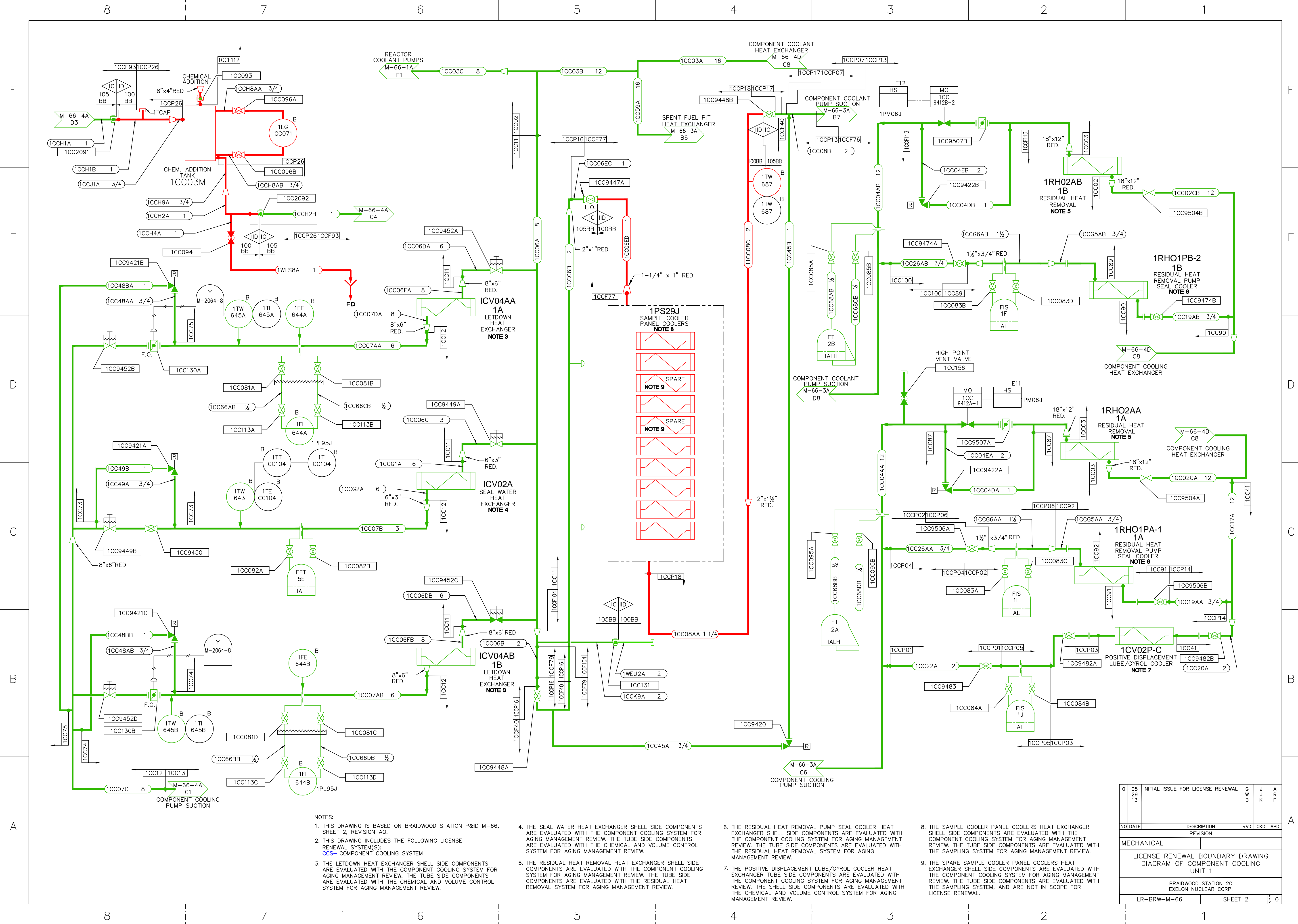


NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-66, SHEET 1B, REVISION AM.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS- COMPONENT COOLING SYSTEM  
 RCS- REACTOR COOLANT SYSTEM
3. SEE M-60, SHEETS 1A, 2, 3, AND 4 FOR REACTOR COOLANT PUMP COOLING DETAILS.

0	05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
NO DATE		DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF COMPONENT COOLING UNIT 1					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-66 SHEET 1B 0					

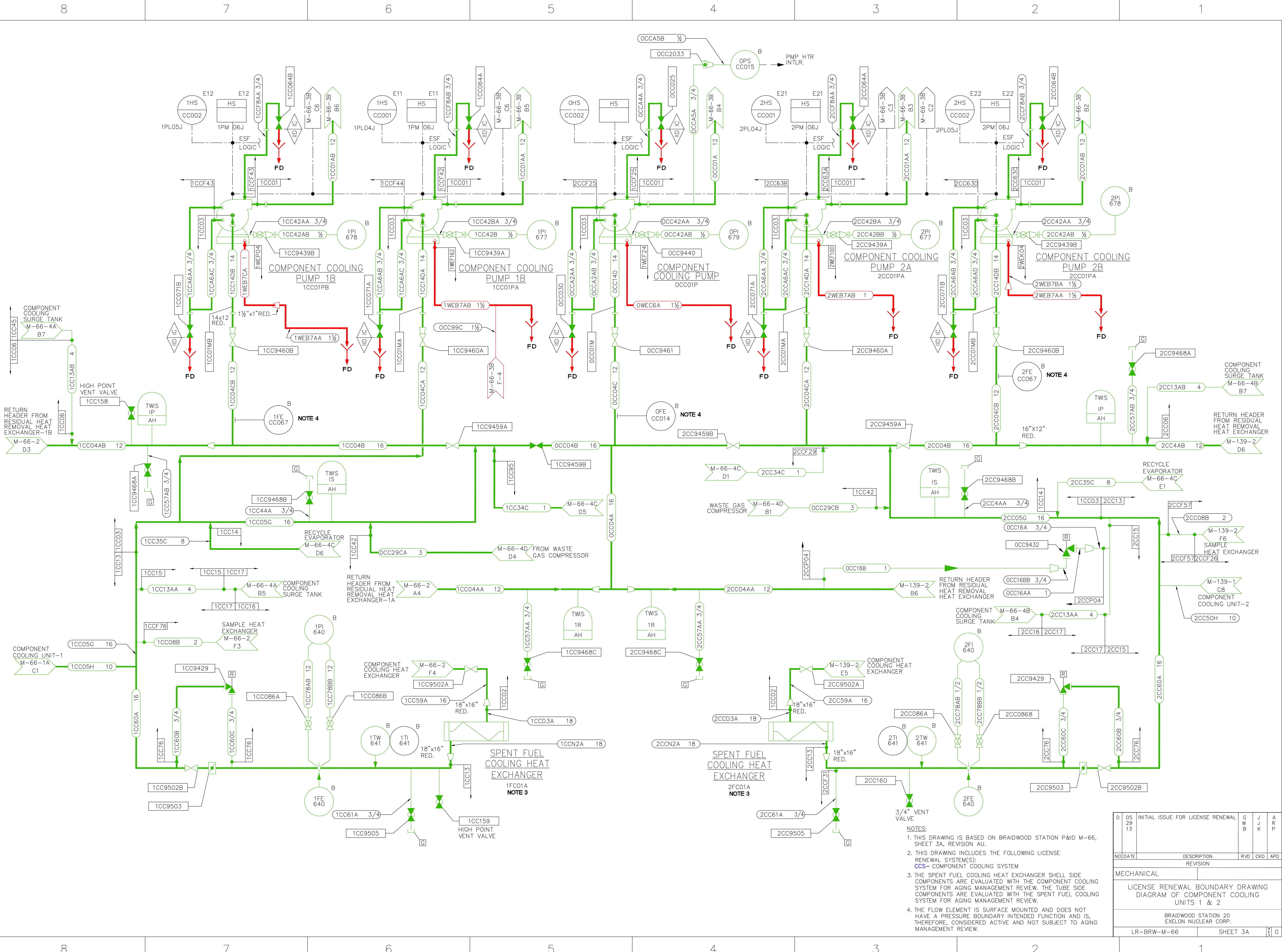




- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-66, SHEET 2, REVISION AQ.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CCS—COMPONENT COOLING SYSTEM
  3. THE LETDOWN HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL AND VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  4. THE SEAL WATER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL AND VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  5. THE RESIDUAL HEAT REMOVAL HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RESIDUAL HEAT REMOVAL SYSTEM FOR AGING MANAGEMENT REVIEW.
  6. THE RESIDUAL HEAT REMOVAL PUMP SEAL COOLER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RESIDUAL HEAT REMOVAL SYSTEM FOR AGING MANAGEMENT REVIEW.
  7. THE POSITIVE DISPLACEMENT LUBE/GYROL COOLER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL AND VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  8. THE SAMPLE COOLER PANEL COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM FOR AGING MANAGEMENT REVIEW.
  9. THE SPARE SAMPLE COOLER PANEL COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.

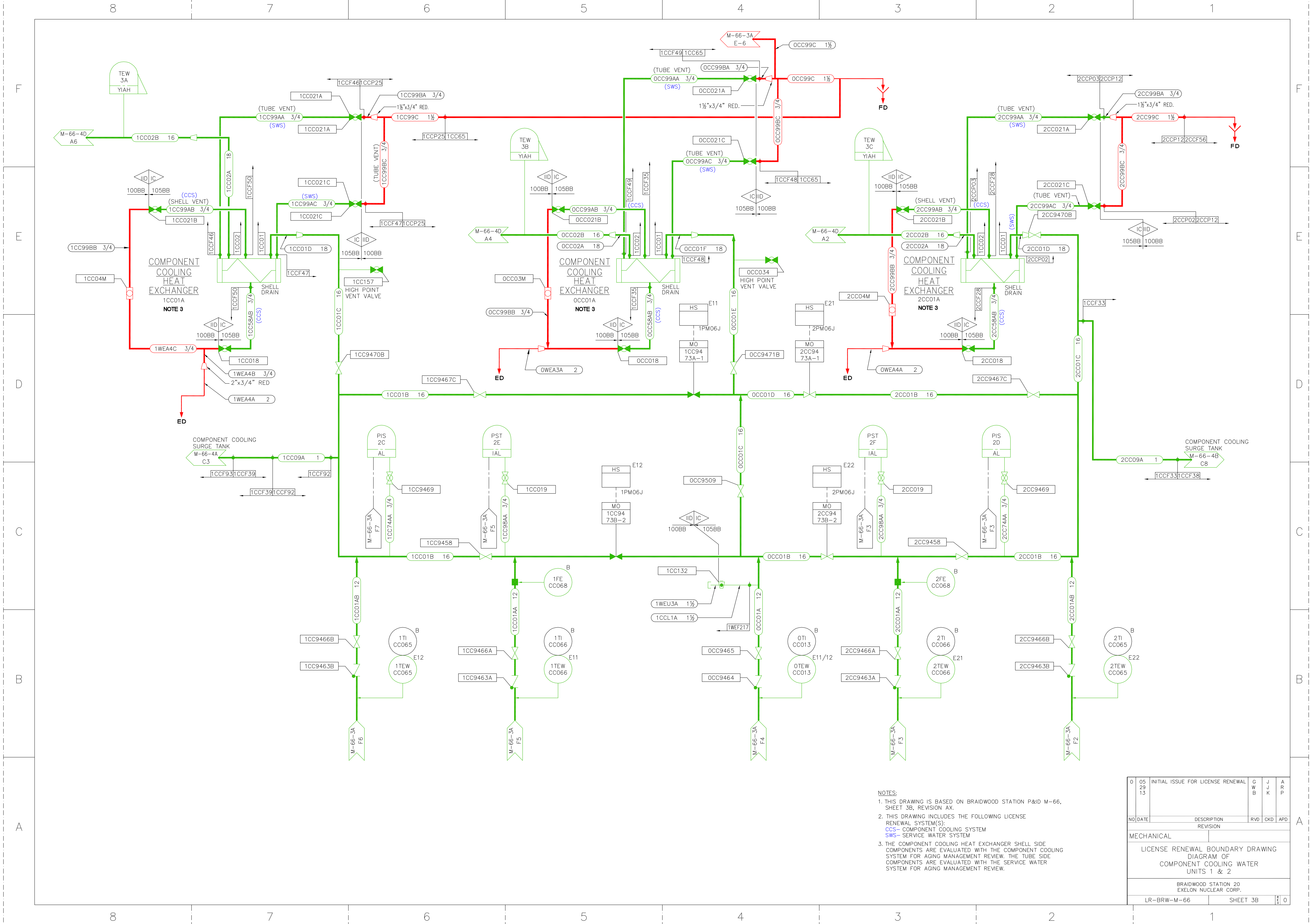
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	G	J	A
1	29		W	J	R
13			B	K	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF COMPONENT COOLING UNIT 1					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-66		SHEET 2			0





- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-66, SHEET 3A, REVISION AU.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CCS - COMPONENT COOLING SYSTEM
  3. THE SPENT FUEL COOLING HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SPENT FUEL COOLING SYSTEM FOR AGING MANAGEMENT REVIEW.
  4. THE FLOW ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

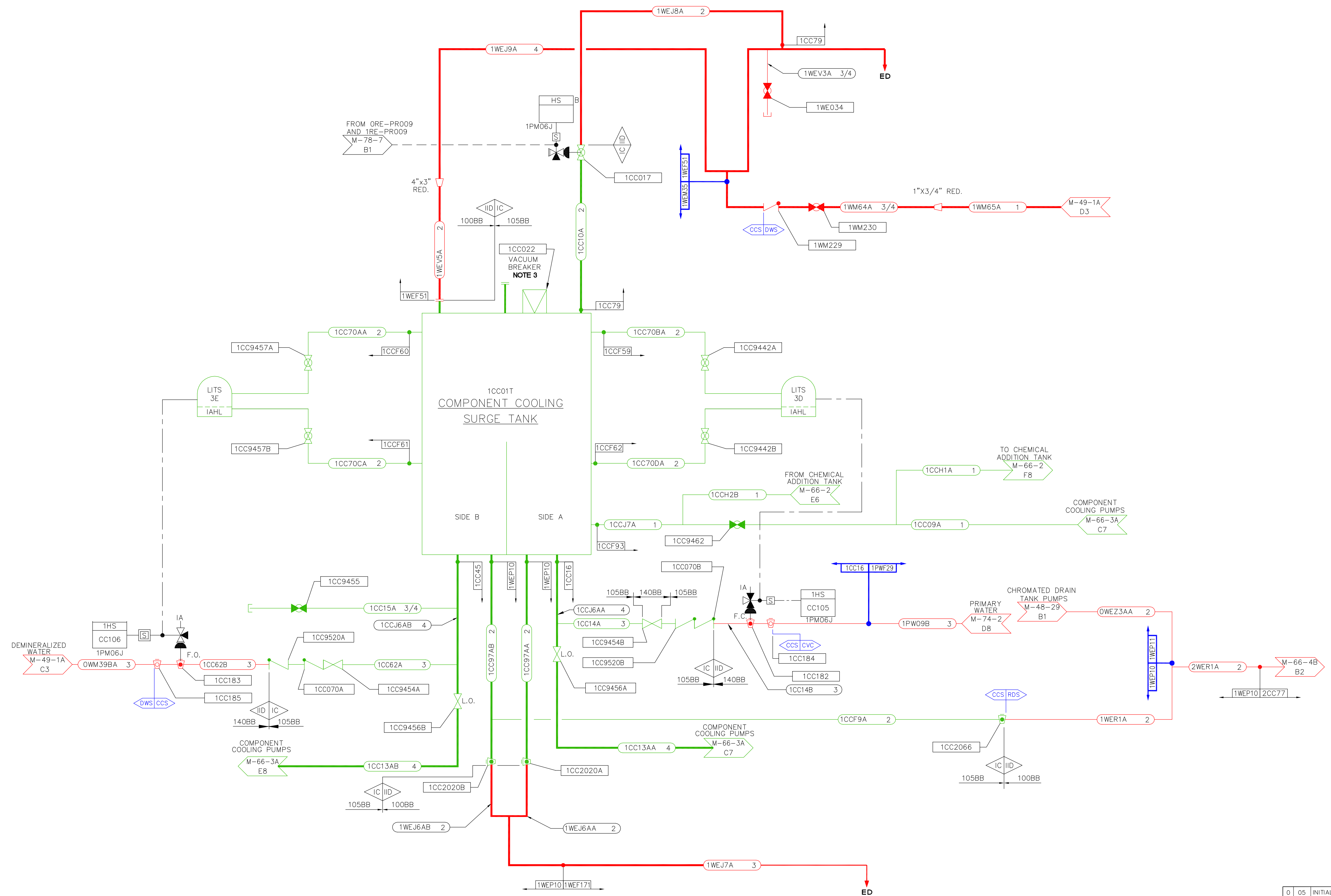
05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	GWB	JK	ARP
NO/DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF COMPONENT COOLING UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-66		SHEET 3A		0



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-66, SHEET 3B, REVISION AX.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS - COMPONENT COOLING SYSTEM  
 SWS - SERVICE WATER SYSTEM  
 3. THE COMPONENT COOLING HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	G W B	J J K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF COMPONENT COOLING WATER UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-66		SHEET 3B		0



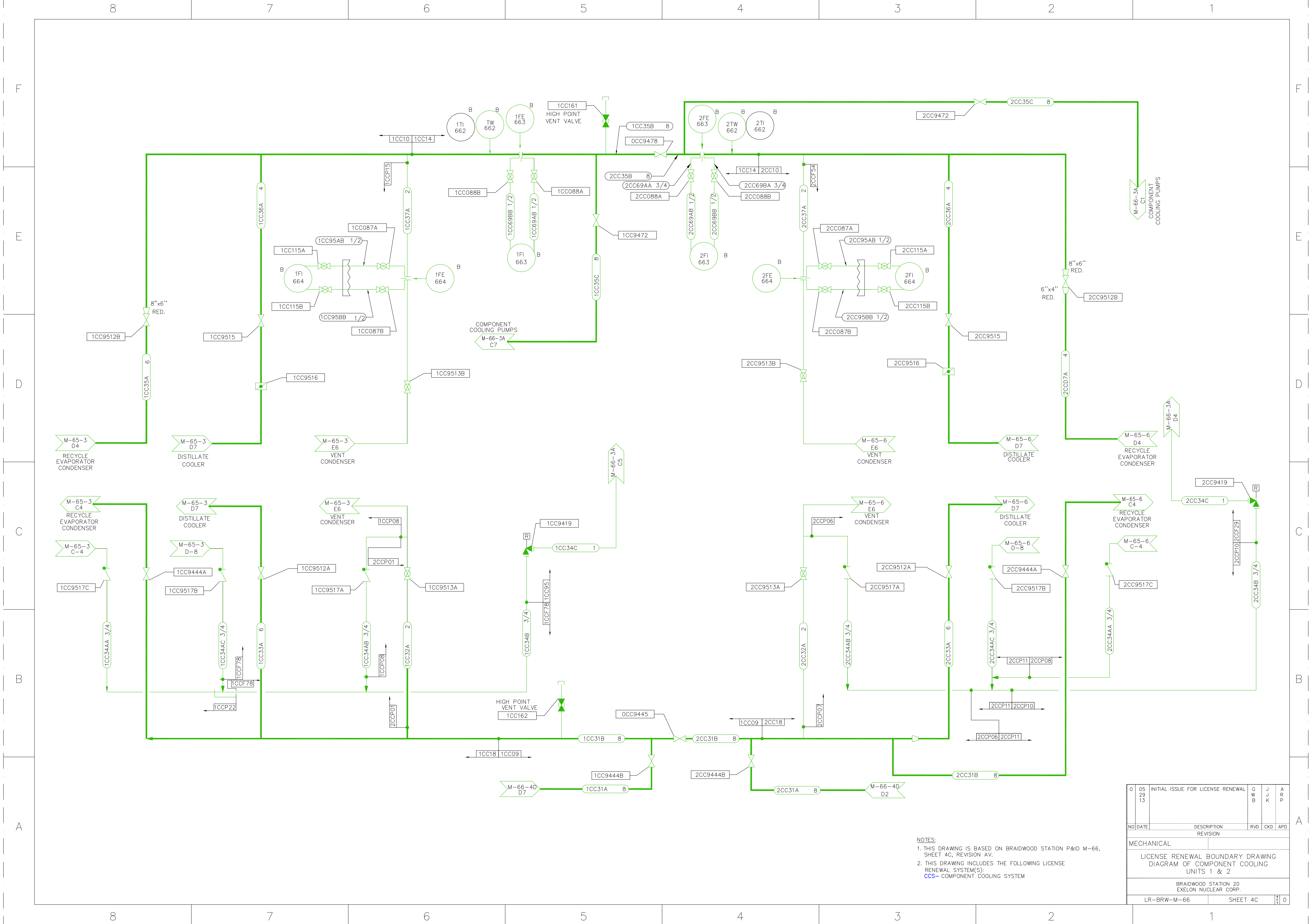


NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-66, SHEET 4A, REVISION BD.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS- COMPONENT COOLING SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 DWS- DEMINERALIZED WATER SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 3. THE VACUUM BREAKER IS INCLUDED WITH VALVE BODY FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J J K	P P J O D	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF COMPONENT COOLING UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-66	SHEET 4A	0		





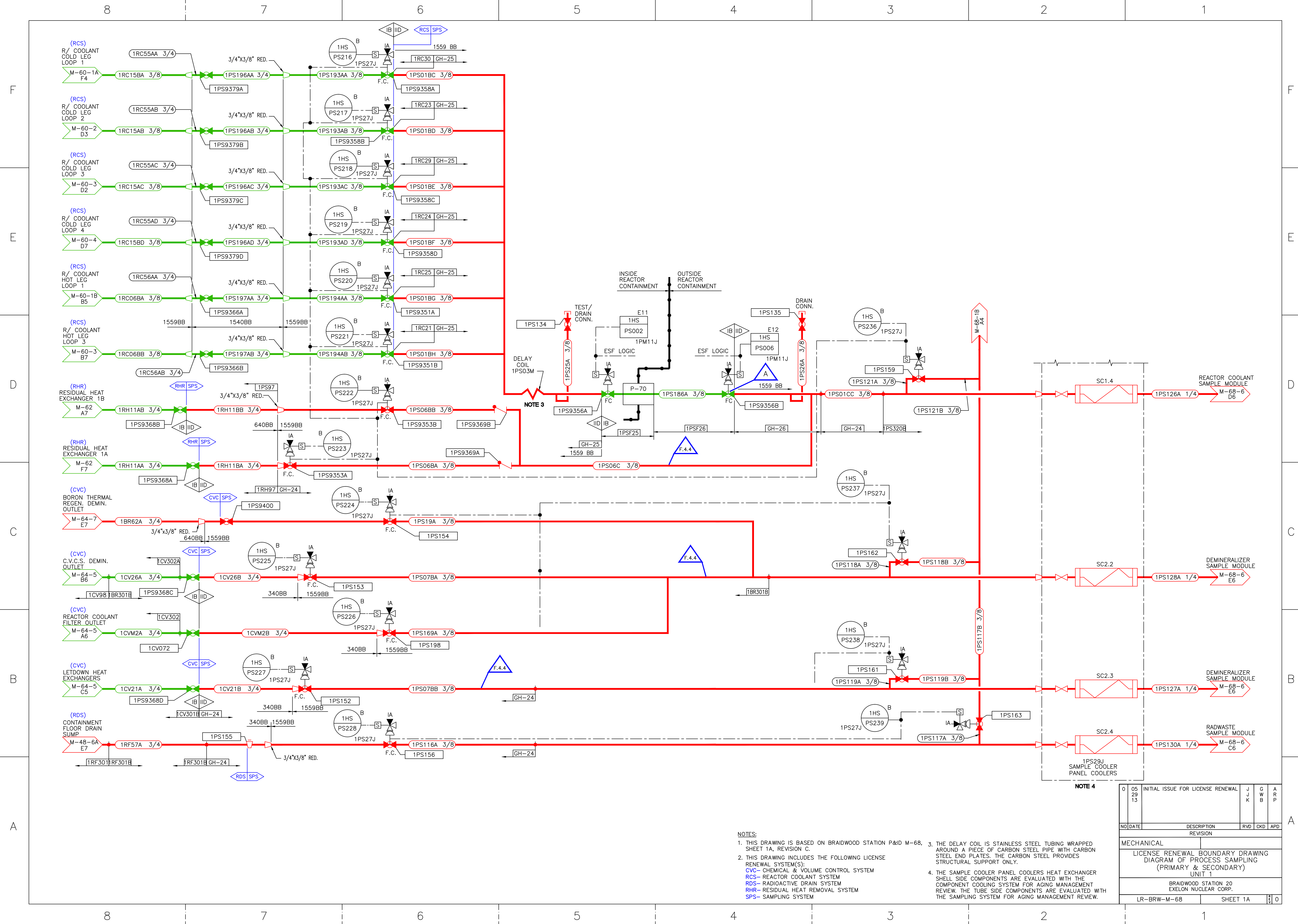


NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-66, SHEET 4C, REVISION AV.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS- COMPONENT COOLING SYSTEM

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	G	J	A
29	13		W	K	R
			B		P
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF COMPONENT COOLING					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-66		SHEET 4C		0	







F  
E  
D  
C  
B  
A

F  
E  
D  
C  
B  
A

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

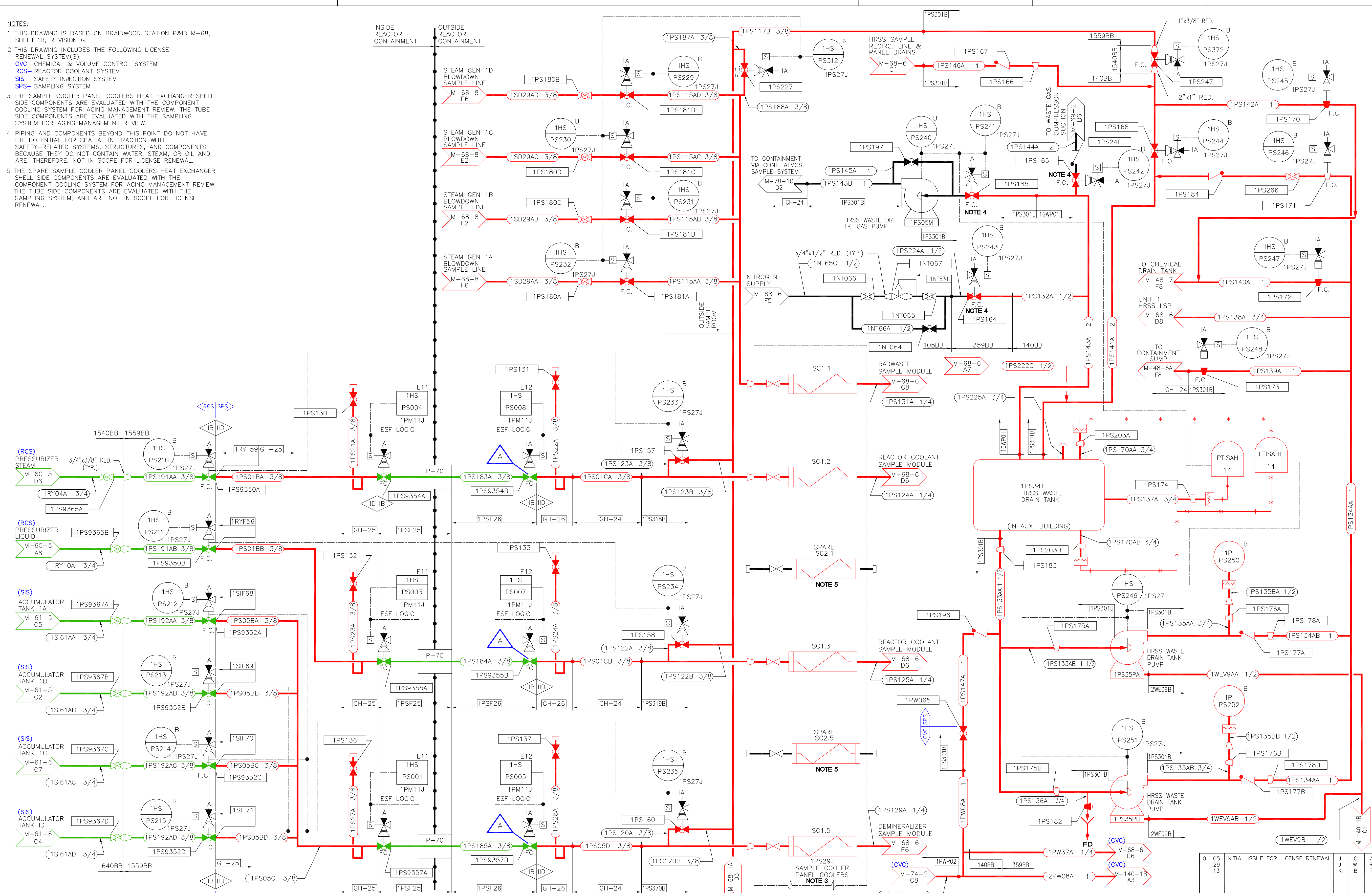
- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-68, SHEET 1A, REVISION C.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 RHR- RESIDUAL HEAT REMOVAL SYSTEM  
 SPS- SAMPLING SYSTEM
  - THE DELAY COIL IS STAINLESS STEEL TUBING WRAPPED AROUND A PIECE OF CARBON STEEL PIPE WITH CARBON STEEL END PLATES. THE CARBON STEEL PROVIDES STRUCTURAL SUPPORT ONLY.
  - THE SAMPLE COOLER PANEL COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM FOR AGING MANAGEMENT REVIEW.

**NOTE 4**

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	JJK	GWB	ARP
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PROCESS SAMPLING (PRIMARY & SECONDARY) UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-68	SHEET 1A	0		

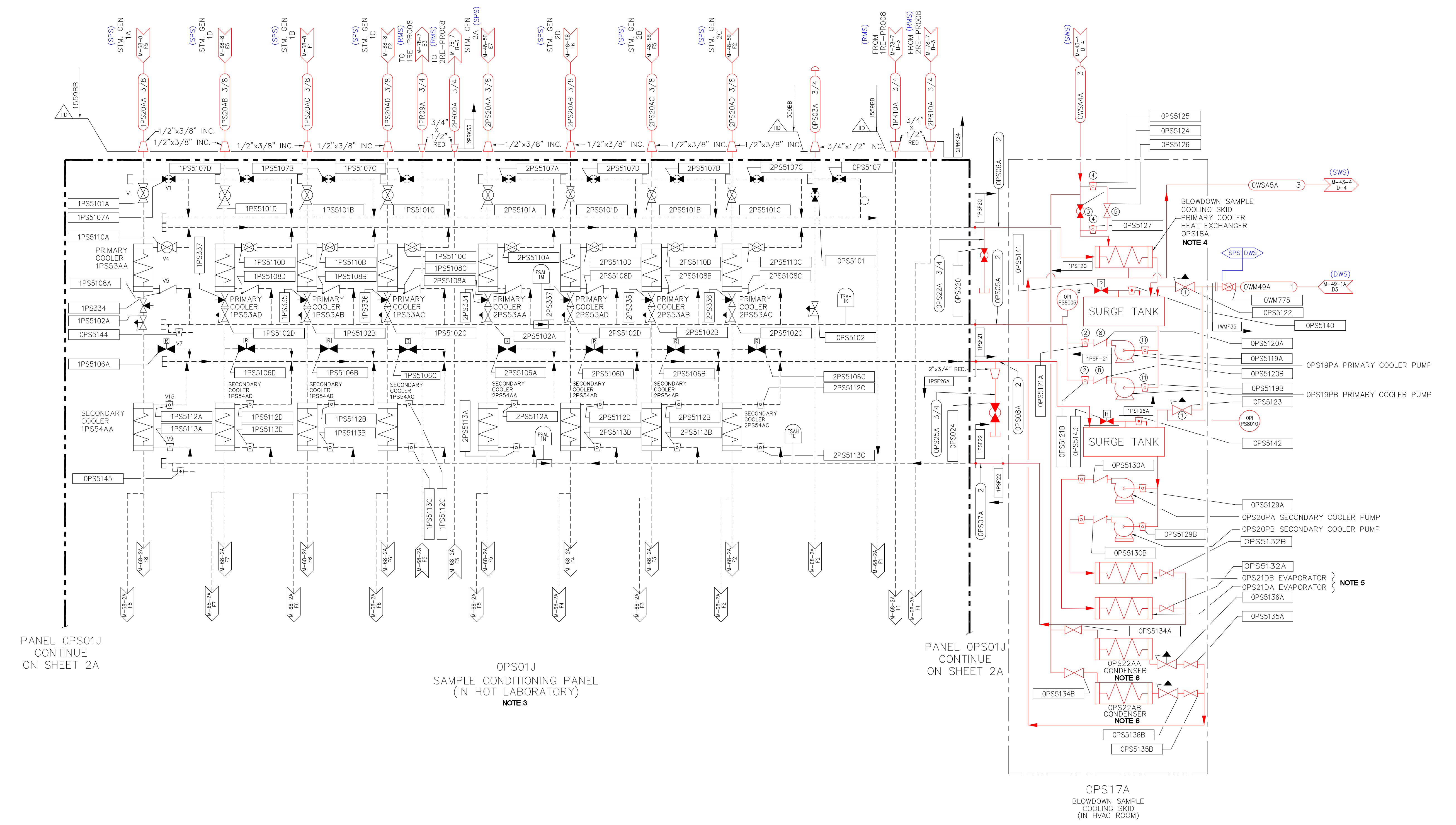


- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-68, SHEET 1B, REVISION G.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 SIS- SAFETY INJECTION SYSTEM  
 SPS- SAMPLING SYSTEM
  - THE SAMPLE COOLER PANEL COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM FOR AGING MANAGEMENT REVIEW.
  - PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT IN SCOPE FOR LICENSE RENEWAL.
  - THE SPARE SAMPLE COOLER PANEL COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.



05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J K	G W B	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PROCESS SAMPLING (PRIMARY & SECONDARY) UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-68	SHEET 1B	0		





PANEL OPS01J  
CONTINUE  
ON SHEET 2A

OPS01J  
SAMPLE CONDITIONING PANEL  
(IN HOT LABORATORY)  
NOTE 3

PANEL OPS01J  
CONTINUE  
ON SHEET 2A

OPS17A  
BLOWDOWN SAMPLE  
COOLING SKID  
(IN HVAC ROOM)

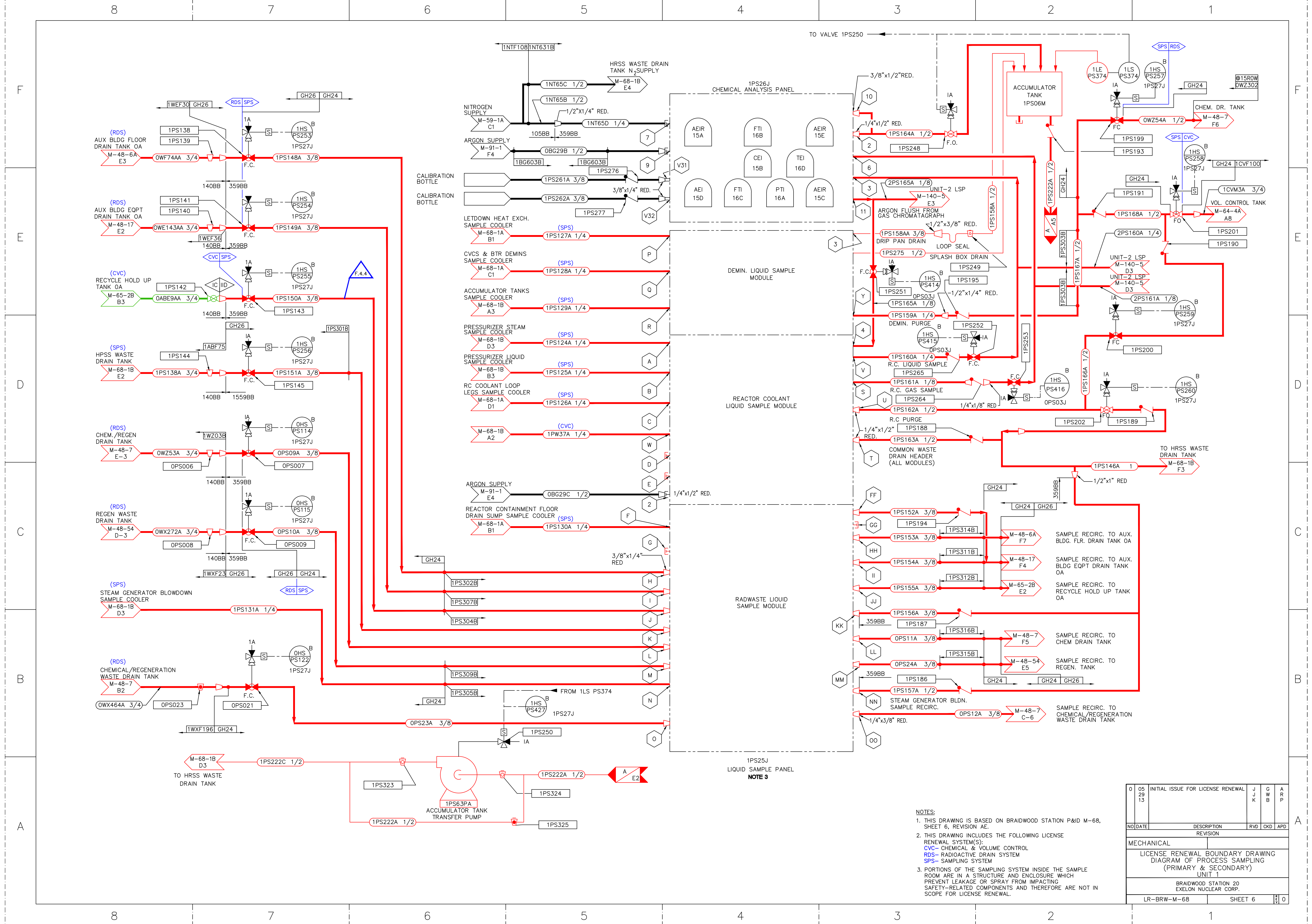
NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-68, SHEET 2, REVISION AF.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
DWS - DEMINERALIZED WATER SYSTEM  
RMS - RADIATION MONITORING SYSTEM  
SPS - SAMPLING SYSTEM  
SWS - SERVICE WATER SYSTEM
- THE SAMPLE CONDITIONING PANEL ENCLOSURE PREVENTS LEAKAGE OR SPRAY FROM IMPACTING SAFETY-RELATED COMPONENTS. PIPING AND COMPONENTS WITHIN THE PANEL DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS AND, THEREFORE, ARE NOT IN SCOPE FOR LICENSE RENEWAL.
- THE BLOWDOWN SAMPLE COOLING SKID PRIMARY COOLER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM FOR AGING MANAGEMENT REVIEW.
- THE BLOWDOWN SAMPLE COOLING SKID EVAPORATOR TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
- THE BLOWDOWN SAMPLE COOLING SKID CONDENSER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	29		K	J	R
13	13			O	P
				D	
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PROCESS SAMPLING - PS STEAM GENERATOR BLOWDOWN UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-68			SHEET 2		0

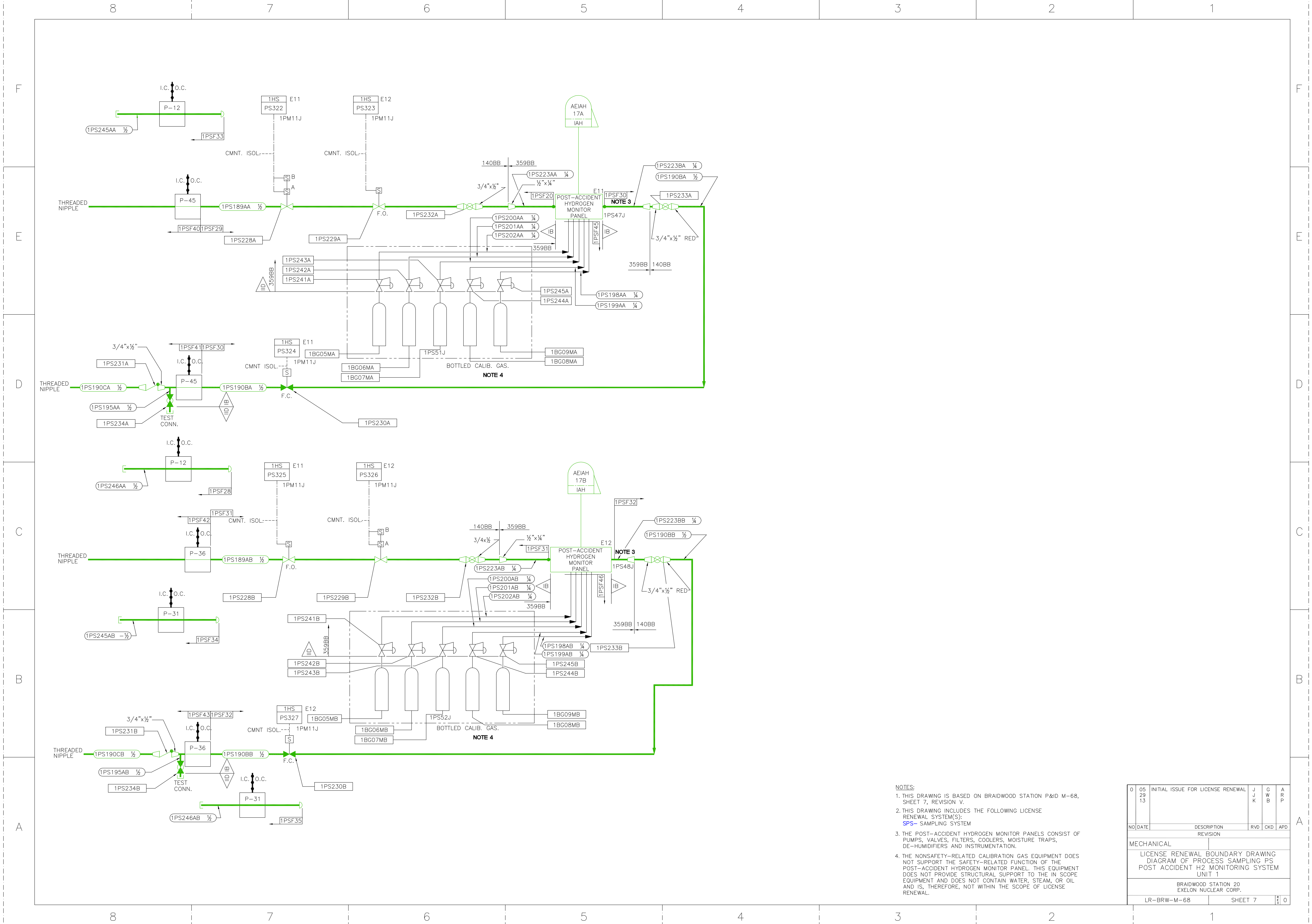






NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-68, SHEET 6, REVISION AE.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 SPS- SAMPLING SYSTEM  
 3. PORTIONS OF THE SAMPLING SYSTEM INSIDE THE SAMPLE ROOM ARE IN A STRUCTURE AND ENCLOSURE WHICH PREVENT LEAKAGE OR SPRAY FROM IMPACTING SAFETY-RELATED COMPONENTS AND THEREFORE ARE NOT IN SCOPE FOR LICENSE RENEWAL.

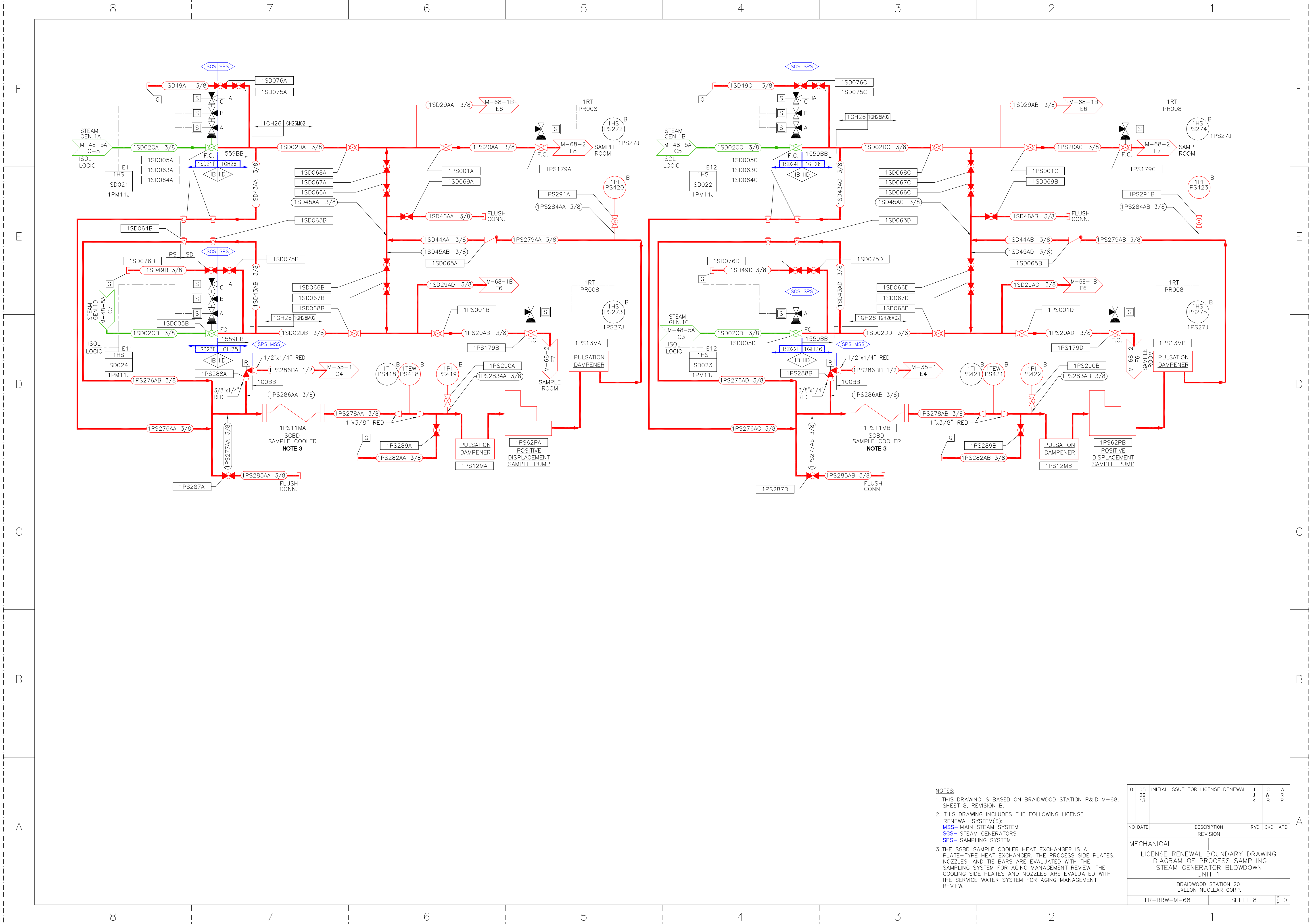
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	J	A
	29		K	W	R
	13			B	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF PROCESS SAMPLING					
(PRIMARY & SECONDARY)					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-68		SHEET 6		0	



- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-68, SHEET 7, REVISION V.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SPS- SAMPLING SYSTEM
  3. THE POST-ACCIDENT HYDROGEN MONITOR PANELS CONSIST OF PUMPS, VALVES, FILTERS, COOLERS, MOISTURE TRAPS, DE-HUMIDIFIERS AND INSTRUMENTATION.
  4. THE NONSAFETY-RELATED CALIBRATION GAS EQUIPMENT DOES NOT SUPPORT THE SAFETY-RELATED FUNCTION OF THE POST-ACCIDENT HYDROGEN MONITOR PANEL. THIS EQUIPMENT DOES NOT PROVIDE STRUCTURAL SUPPORT TO THE IN SCOPE EQUIPMENT AND DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
					K	B	P
NO	DATE			DESCRIPTION	RVD	CKD	APD
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PROCESS SAMPLING PS POST ACCIDENT H <sub>2</sub> MONITORING SYSTEM UNIT 1							
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.							
LR-BRW-M-68				SHEET 7		0	

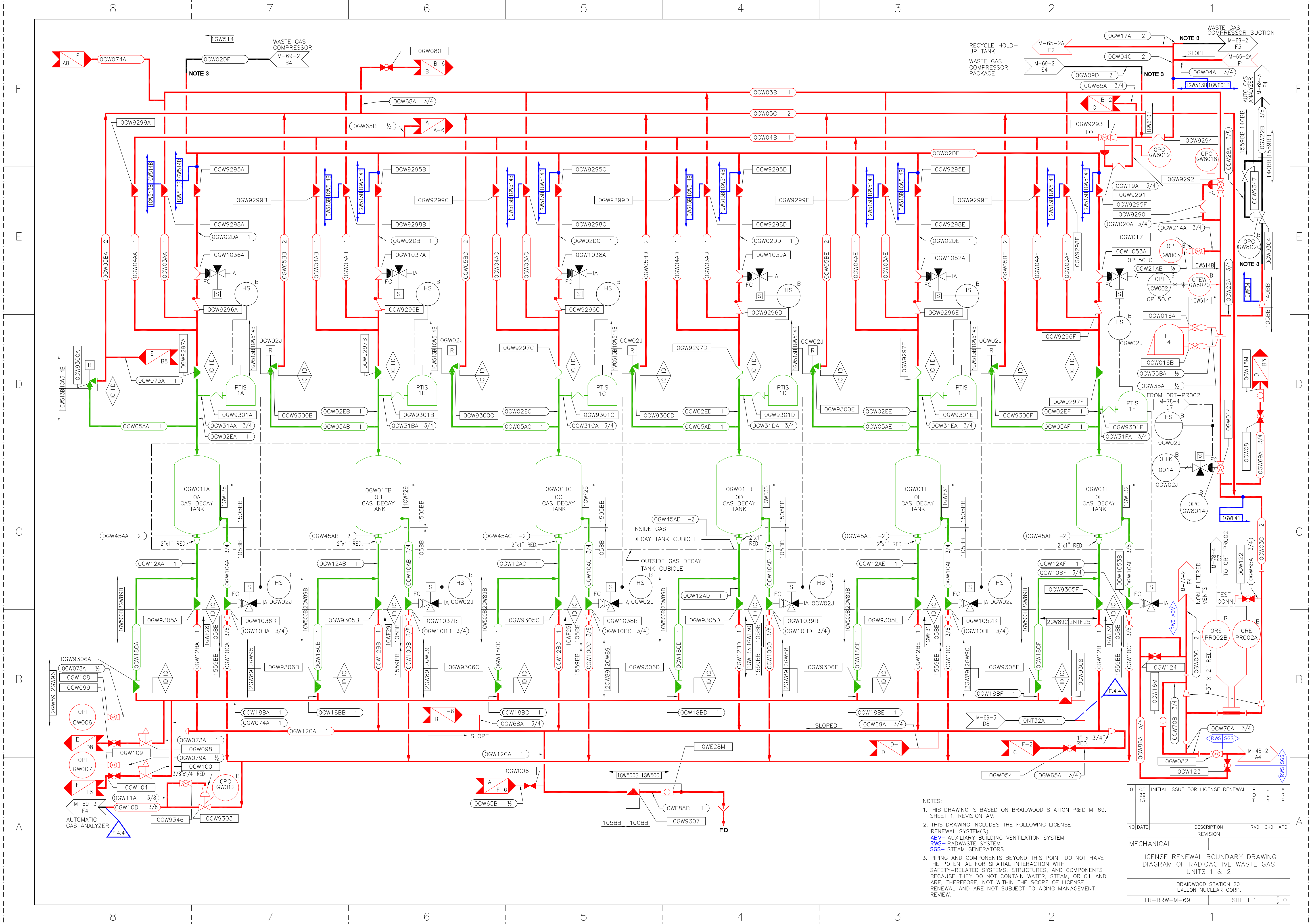




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-68, SHEET 8, REVISION B.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MSS- MAIN STEAM SYSTEM  
 SGS- STEAM GENERATORS  
 SPS- SAMPLING SYSTEM  
 3. THE SGBD SAMPLE COOLER HEAT EXCHANGER IS A PLATE-TYPE HEAT EXCHANGER. THE PROCESS SIDE PLATES, NOZZLES, AND THE BARS ARE EVALUATED WITH THE SAMPLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE COOLING SIDE PLATES AND NOZZLES ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL SHEET 8, REVISION B.	J K	G B	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PROCESS SAMPLING STEAM GENERATOR BLOWDOWN UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-68		SHEET 8		0

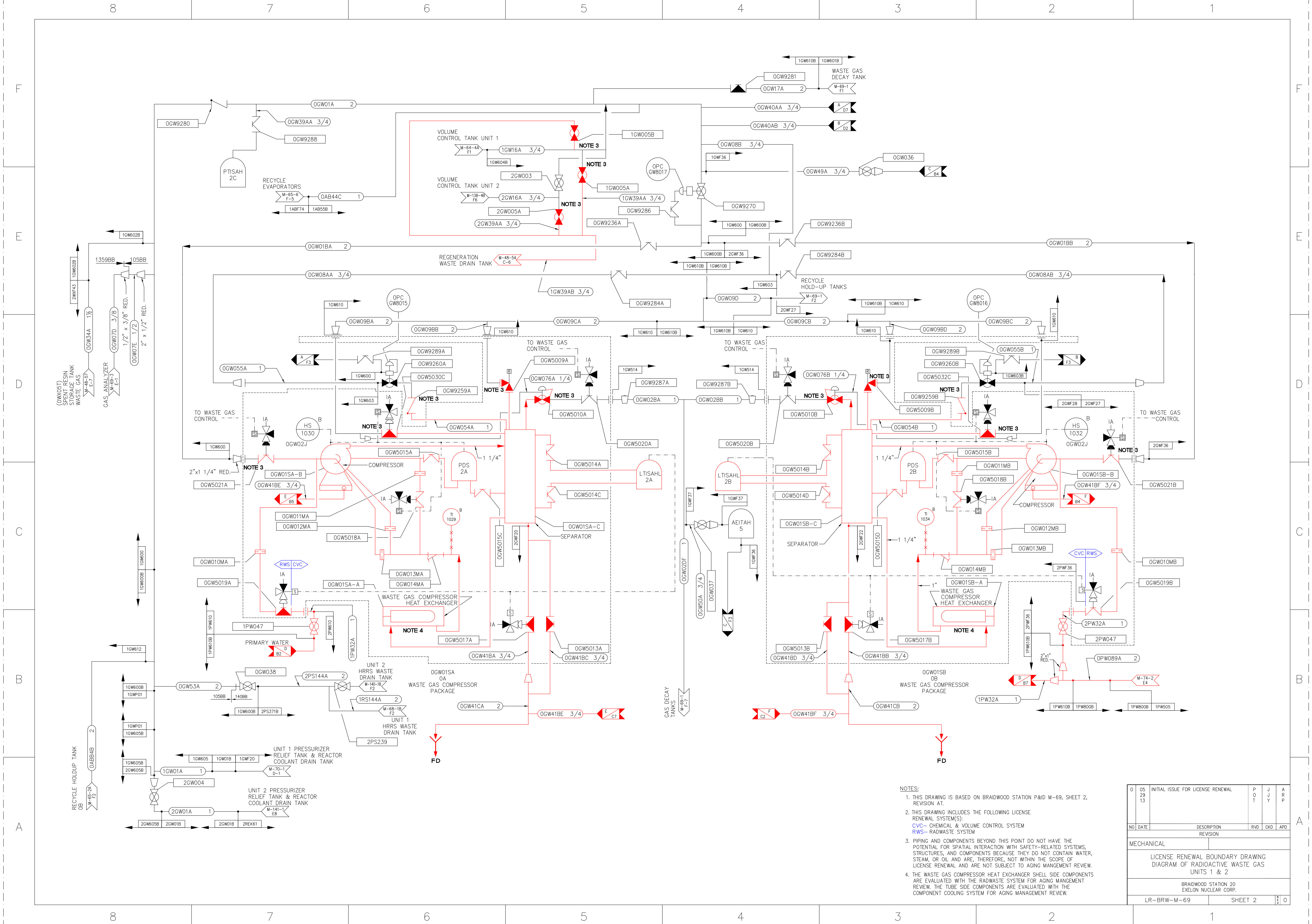




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-69, SHEET 1, REVISION AV.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 RWS- RADWASTE SYSTEM  
 SGS- STEAM GENERATORS  
 3. PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.

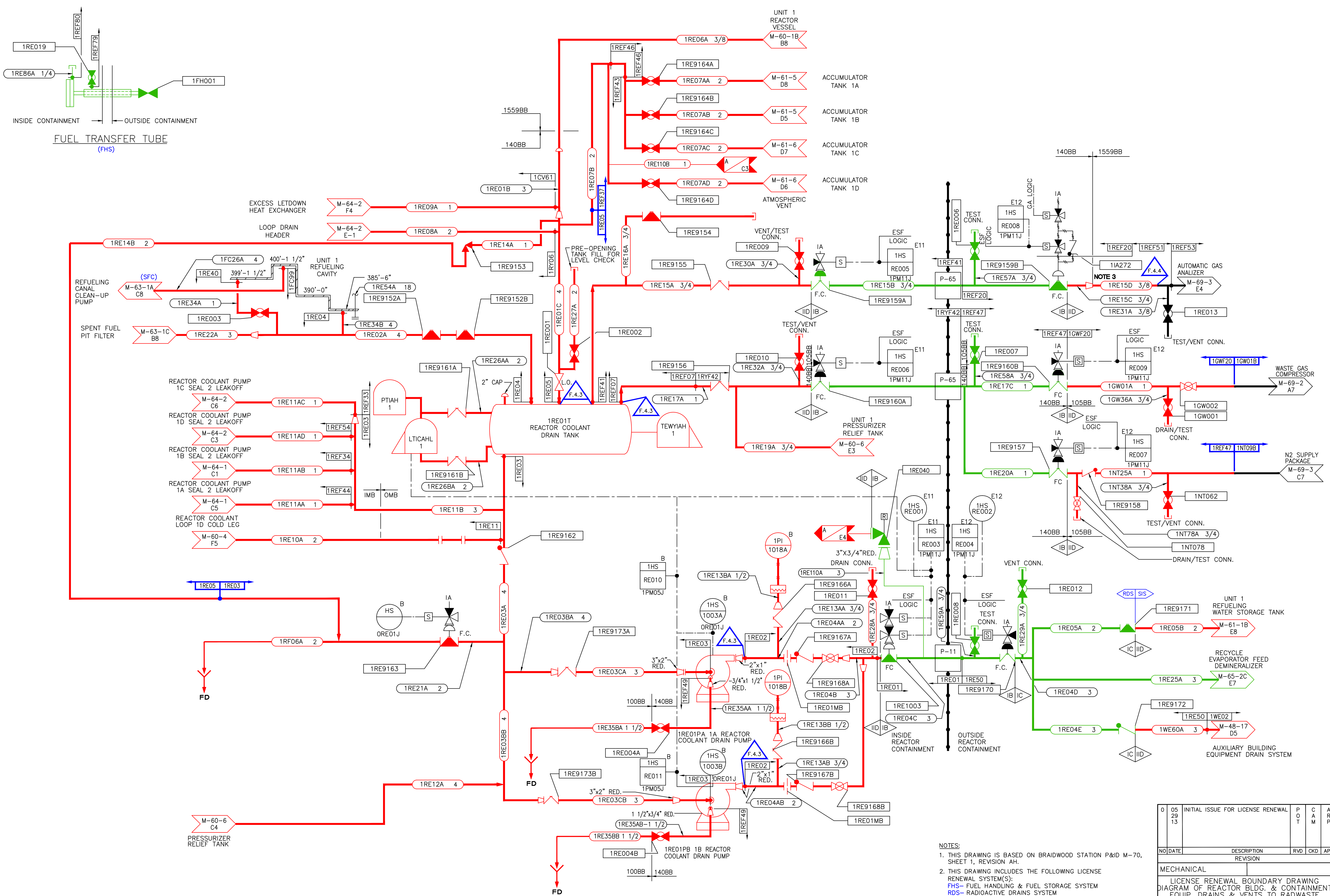
05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	POT	J	L	A	R
NO	DATE	DESCRIPTION	RVD	CKD	APD			
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF RADIOACTIVE WASTE GAS UNITS 1 & 2								
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.								
LR-BRW-M-69 SHEET 1								





- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-69, SHEET 2, REVISION AT.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RWS- RADWASTE SYSTEM
  3. PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  4. THE WASTE GAS COMPRESSOR HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
	29		O	J	R
	13		T	Y	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF RADIOACTIVE WASTE GAS UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-69			SHEET 2		0



FUEL TRANSFER TUBE (FHS)

INSIDE CONTAINMENT    OUTSIDE CONTAINMENT

REFUELING CANAL CLEAN-UP PUMP (SFC)

SPENT FUEL PIT FILTER

REACTOR COOLANT PUMP 1C SEAL 2 LEAKOFF

REACTOR COOLANT PUMP 1D SEAL 2 LEAKOFF

REACTOR COOLANT PUMP 1B SEAL 2 LEAKOFF

REACTOR COOLANT PUMP 1A SEAL 2 LEAKOFF

REACTOR COOLANT PUMP 1A SEAL 2 LEAKOFF

REACTOR COOLANT LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

REACTOR COOLANT LOOP 1D COLD LEG

NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-70, SHEET 1, REVISION AH.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 FHS- FUEL HANDLING & FUEL STORAGE SYSTEM  
 RDS- RADIOACTIVE DRAINS SYSTEM  
 SFC- SPENT FUEL CLEANING SYSTEM  
 SIS- SAFETY INJECTION SYSTEM

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
29	13		O	A	M	P
13			T			
NO	DATE	DESCRIPTION	RVD	CKD	APD	
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF REACTOR BLDG. & CONTAINMENT						
EQUIP. DRAINS & VENTS TO RADWASTE						
UNIT 1						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-70		SHEET 1		0		







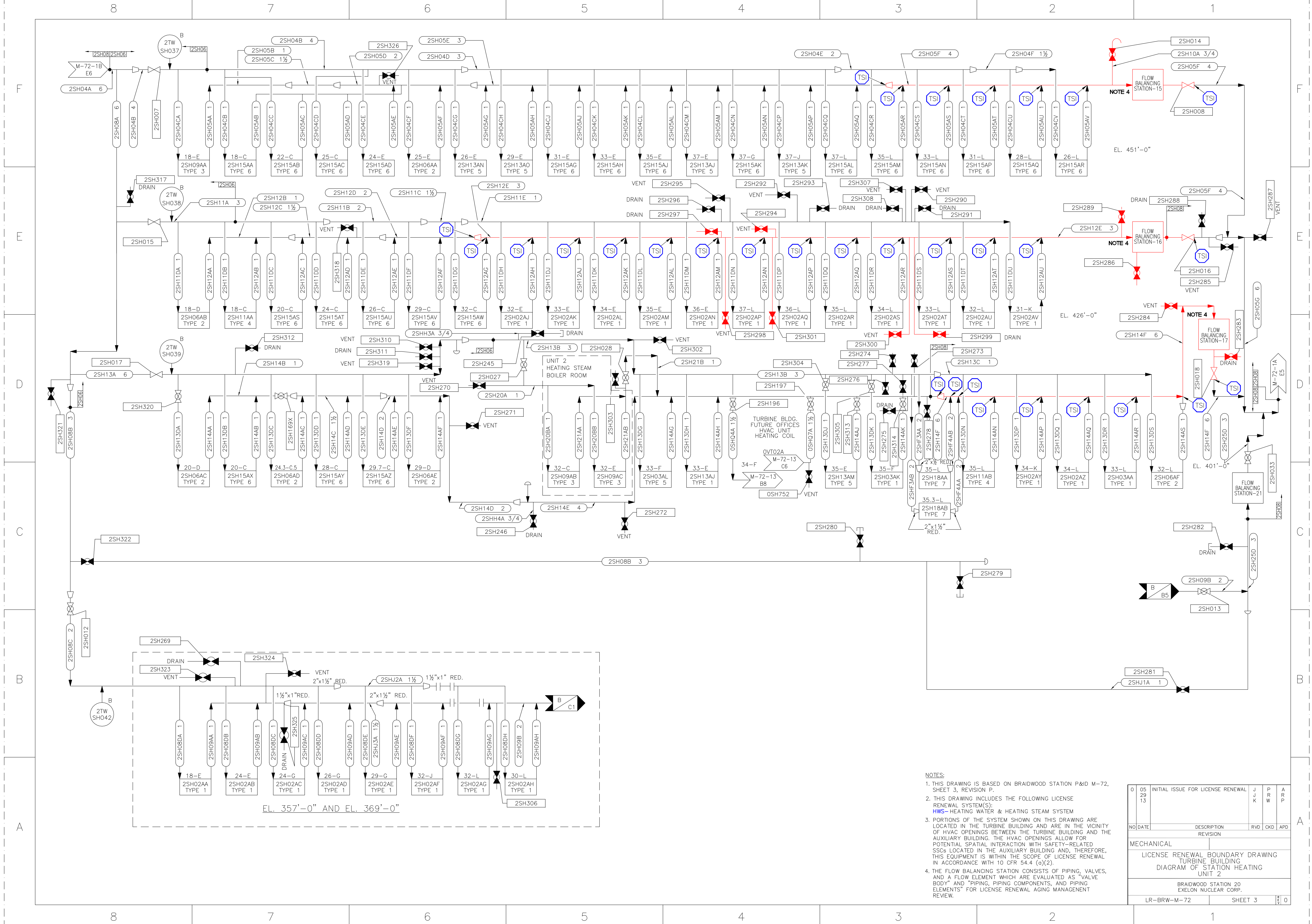










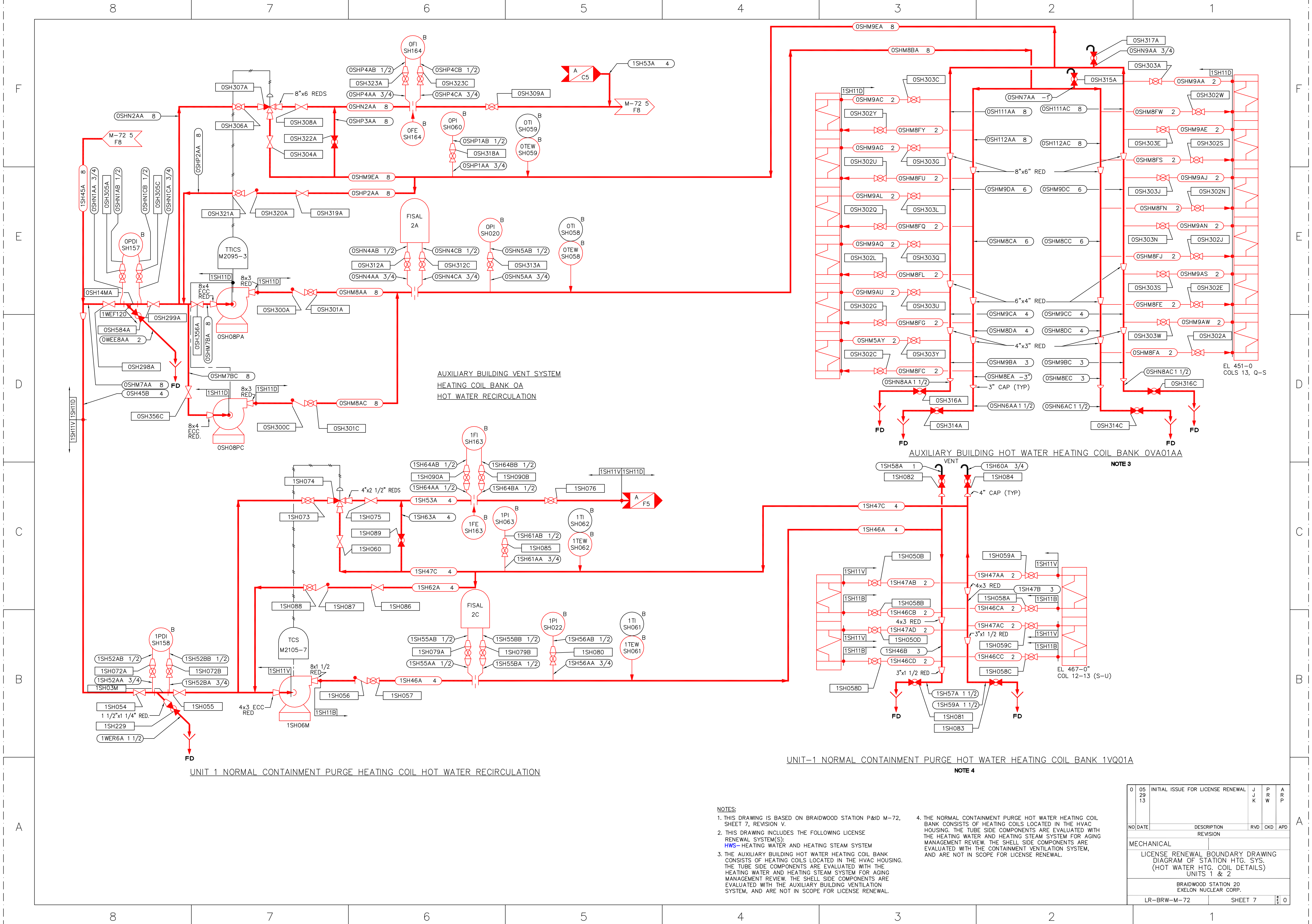


- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-72, SHEET 3, REVISION P.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
HWS- HEATING WATER & HEATING STEAM SYSTEM
  3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (e)(2).
  4. THE FLOW BALANCING STATION CONSISTS OF PIPING, VALVES, AND A FLOW ELEMENT WHICH ARE EVALUATED AS "VALVE BODY" AND "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	29		K	R	R
13	13			W	P
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING TURBINE BUILDING DIAGRAM OF STATION HEATING UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-72		SHEET 3		0	







UNIT 1 NORMAL CONTAINMENT PURGE HEATING COIL HOT WATER RECIRCULATION

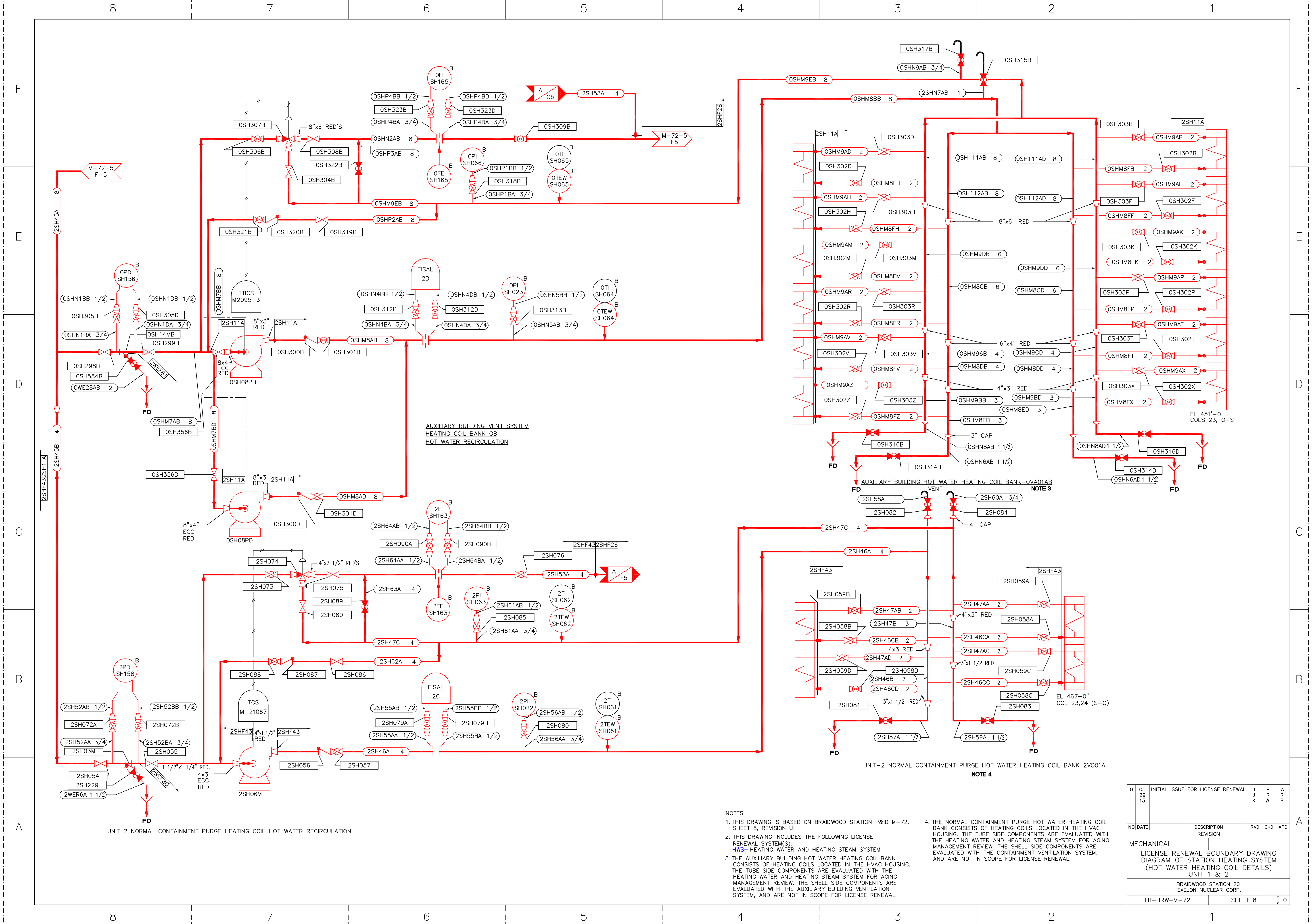
UNIT-1 NORMAL CONTAINMENT PURGE HOT WATER HEATING COIL BANK 1VQ01A

NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-72, SHEET 7, REVISION V.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
HWS - HEATING WATER AND HEATING STEAM SYSTEM
- THE AUXILIARY BUILDING HOT WATER HEATING COIL BANK CONSISTS OF HEATING COILS LOCATED IN THE HVAC HOUSING. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
- THE NORMAL CONTAINMENT PURGE HOT WATER HEATING COIL BANK CONSISTS OF HEATING COILS LOCATED IN THE HVAC HOUSING. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J K	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF STATION HTG. SYS. (HOT WATER HTG. COIL DETAILS) UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-72 SHEET 7 0				





UNIT 2 NORMAL CONTAINMENT PURGE HEATING COIL HOT WATER RECIRCULATION

AUXILIARY BUILDING VENT SYSTEM HEATING COIL BANK OR HOT WATER RECIRCULATION

UNIT-2 NORMAL CONTAINMENT PURGE HOT WATER HEATING COIL BANK 2VQ01A

- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-72, SHEET 8, REVISION U.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
HWS- HEATING WATER AND HEATING STEAM SYSTEM
  - THE AUXILIARY BUILDING HOT WATER HEATING COIL BANK CONSISTS OF HEATING COILS LOCATED IN THE HVAC HOUSING. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
  - THE NORMAL CONTAINMENT PURGE HOT WATER HEATING COIL BANK CONSISTS OF HEATING COILS LOCATED IN THE HVAC HOUSING. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		K	R	R
				W	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF STATION HEATING SYSTEM					
(HOT WATER HEATING COIL DETAILS)					
UNIT 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-72 SHEET 8					

8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

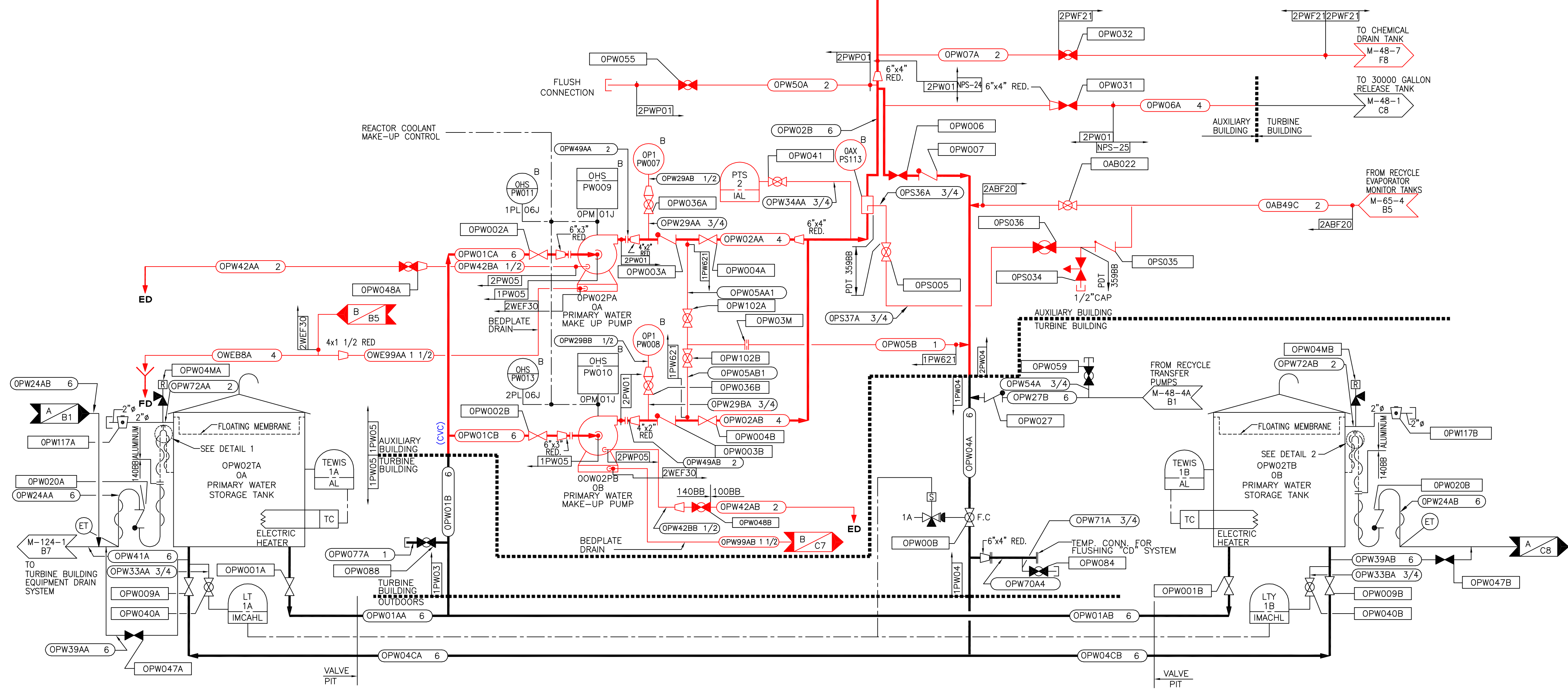
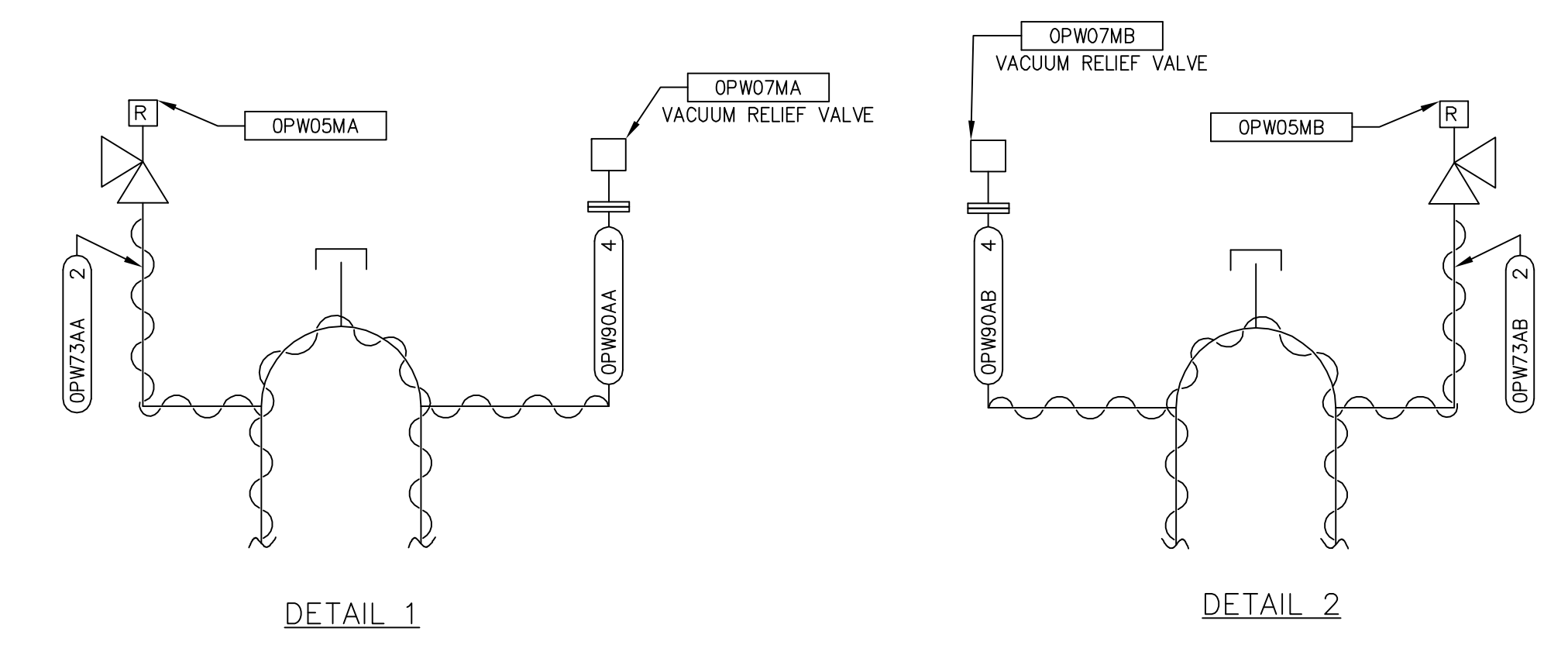
E

D

C

B

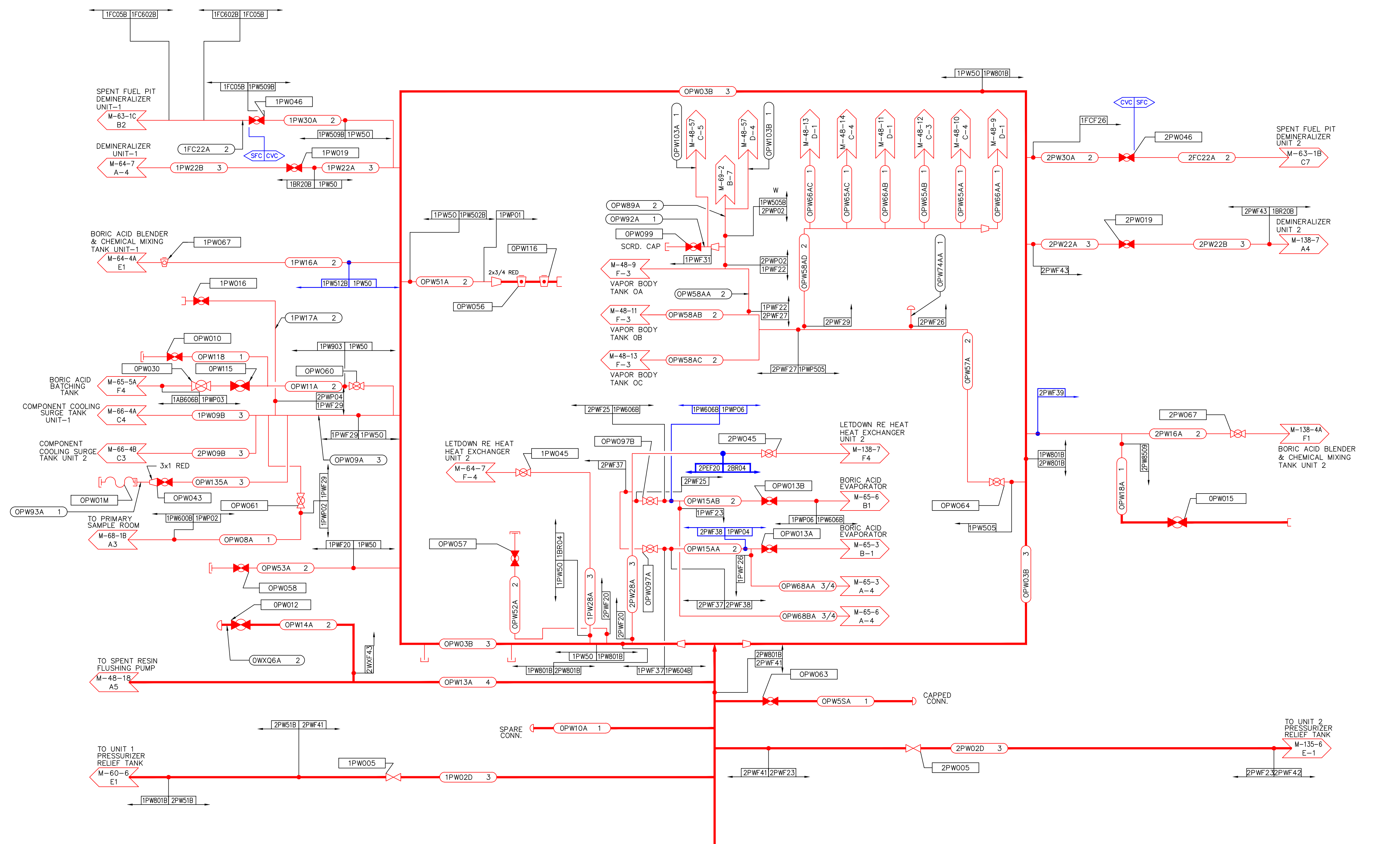
A



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-74, SHEET 1, REVISION AG.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
				J	J	R
				O	K	P
				D		
NO DATE			DESCRIPTION	RVD	CKD	APD
			REVISION			
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PRIMARY WATER UNITS 1 & 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-74			SHEET 1			0

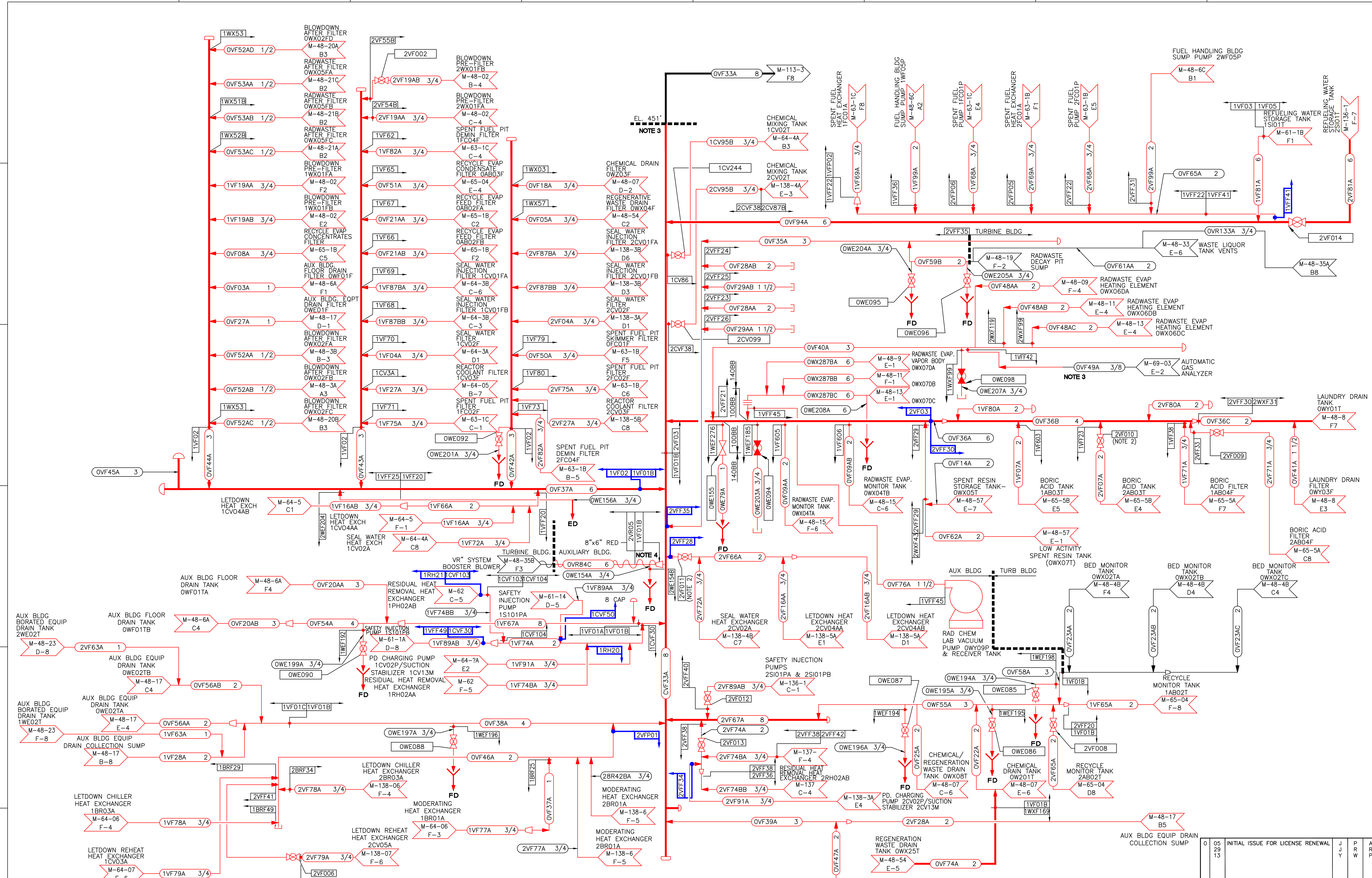




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-74, SHEET 2, REVISION AS.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 SFC- SPENT FUEL COOLING SYSTEM

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL SHEET 2, REVISION AS.	P J O D	J J K	A R P	
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PRIMARY WATER UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-74	SHEET 2	0			





NOTE 3

NOTE 4

NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-77, SHEET 1, REVISION AX.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
ABV- AUXILIARY BUILDING VENTILATION SYSTEM
- PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
- HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
	29		L	R	R
	13		Y	W	P
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
AUXILIARY BUILDING					
EQUIPMENT VENTS (FILTERED)					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-77		SHEET 1		0	



8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

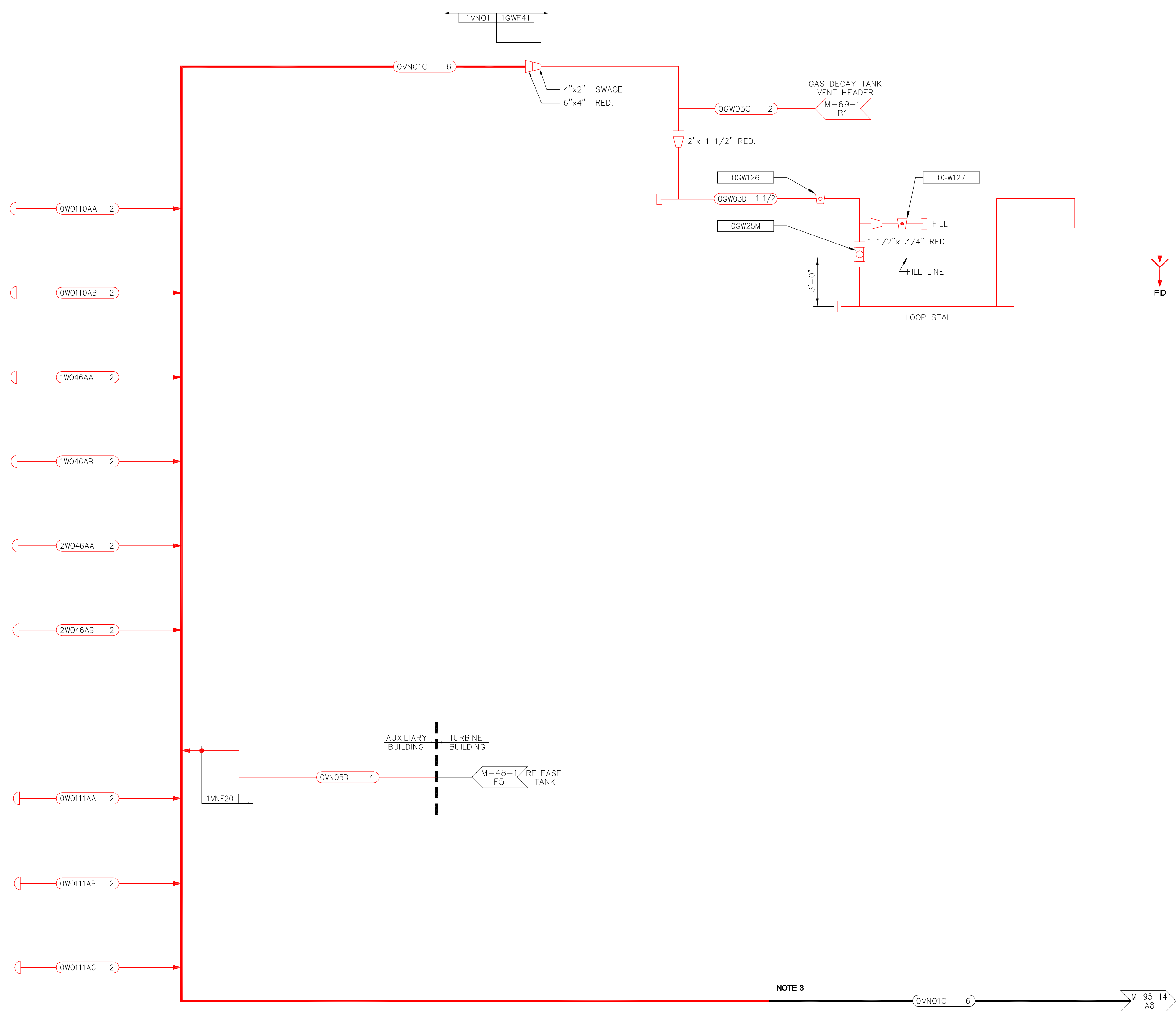
E

D

C

B

A



NOTE 3

EL. 477'

- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-77, SHEET 2, REVISION Z.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM
  3. PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		Y	R	R
				W	P
NO DATE DESCRIPTION RVD CKD APD			REVISION		
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
AUXILIARY BUILDING					
EQUIPMENT VENTS (NON-FILTERED)					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-77			SHEET 2		0

8

7

6

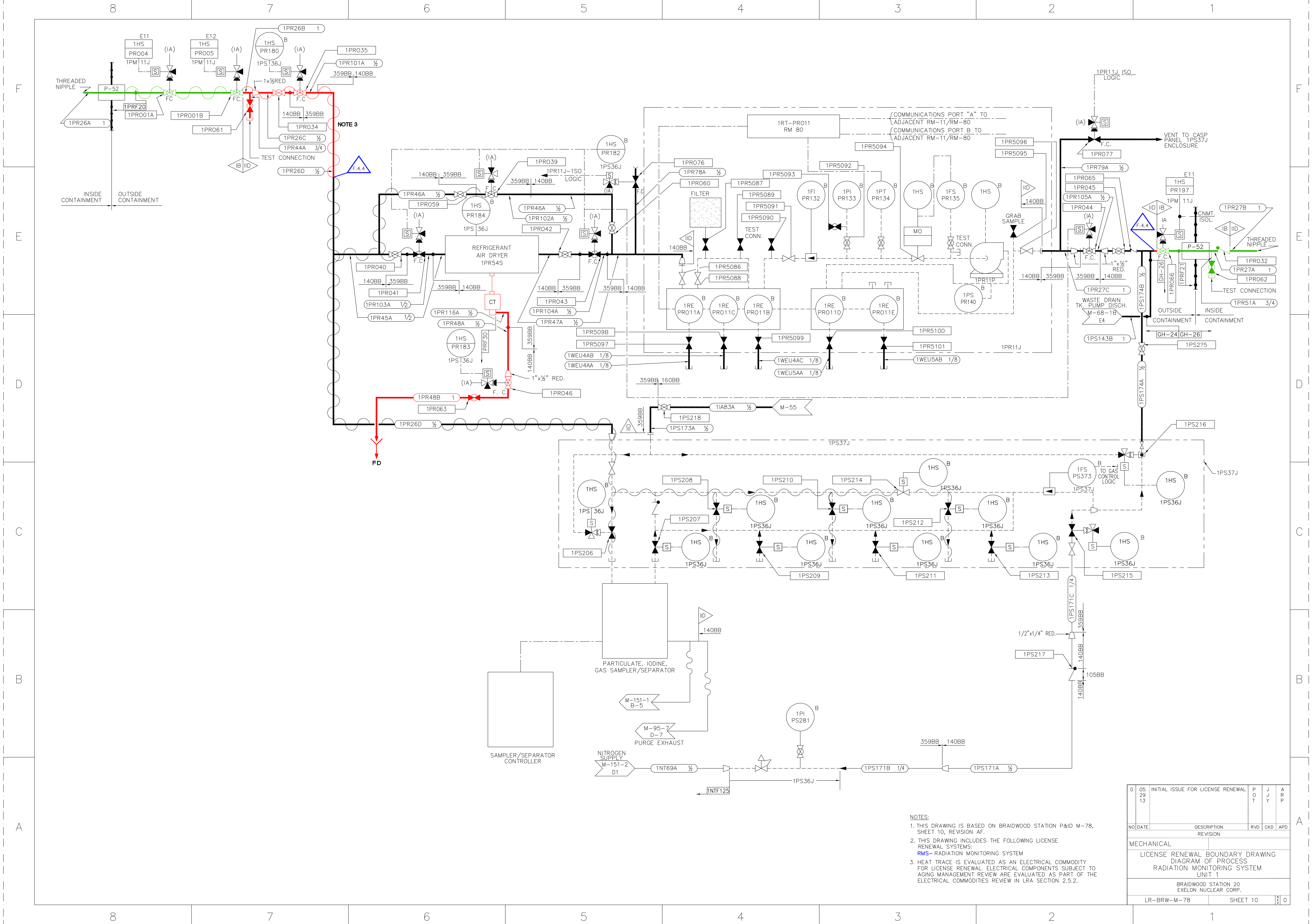
5

4

3

2

1



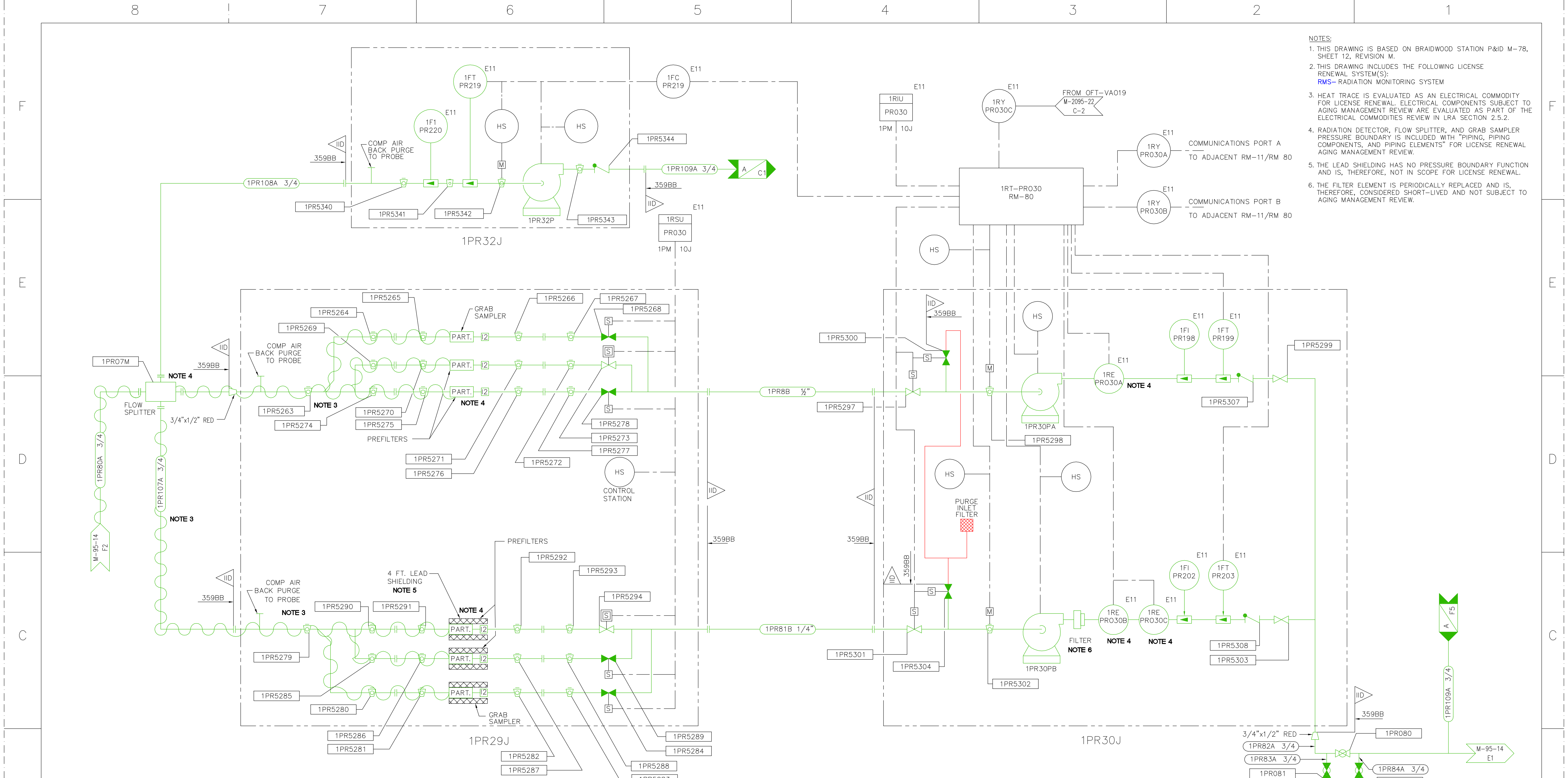
NOTE 3

F.4.4

- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-78, SHEET 10, REVISION AF.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
RMS- RADIATION MONITORING SYSTEM
  - HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29		O	J	R
13		T	Y	P
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF PROCESS				
RADIATION MONITORING SYSTEM				
UNIT 1				
BRAIDWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-78	SHEET 10			0





- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-78, SHEET 12, REVISION M.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
RMS - RADIATION MONITORING SYSTEM
  - HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  - RADIATION DETECTOR, FLOW SPLITTER, AND GRAB SAMPLER PRESSURE BOUNDARY IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE LEAD SHIELDING HAS NO PRESSURE BOUNDARY FUNCTION AND IS, THEREFORE, NOT IN SCOPE FOR LICENSE RENEWAL.
  - THE FILTER ELEMENT IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

SERVICE	GAS DET. LOW	GAS DET. MID	GAS DET. HIGH	FI	FI	FT	FT	RSU	RIU	RT	RY	RY	RY	INLET LINE NO.	INLET LINE NO.	INLET LINE P&ID LOC	INTERCONNECT LINE NO.	INTERCONNECT LINE NO.	OUTLET LINE NO.	OUTLET LINE P&ID LOC	LOC	LOC	FT
AUX. BLDG. VENT STACK 1 WRGM	1RE-PRO30A(E11)	1RE-PRO30B(E11)	1RE-PRO30C(E11)	1FI-PR198(E11)	1FI-PR202(E11)	1FI-PR199(E11)	1FI-PR203(E11)	1RSU-PRO30(E11)	1RIU-PRO30(E11)	1RT-PRO30(E11)	1RY-PRO30A(E11)	1RY-PRO30B(E11)	1RY-PRO30C(E11)	1PR80A 3/4	1PR107A 1/4	M-95-14, F2	1PR80B 1/2	1PR81B 1/4	1PR82A 3/4	M-95-14,E1	1PR29J	1PR30J	OFT VA019B
AUX. BLDG. VENT STACK 2 WRGM	2RE-PRO30A(E21)	2RE-PRO30B(E21)	2RE-PRO30C(E21)	2FI-PR198(E21)	2FI-PR202(E21)	2FI-PR199(E21)	2FI-PR203(E21)	2RSU-PRO30(E21)	2RIU-PRO30(E21)	2RT-PRO30(E21)	2RY-PRO30A(E21)	2RY-PRO30B(E21)	2RY-PRO30C(E21)	2PR80A 3/4	2PR107A 1/4	M-95-14, D2/C2	2PR80B 1/2	2PR81B 1/4	2PR82A 3/4	M-95-14,B1	2PR29J	2PR30J	OFT VA020B

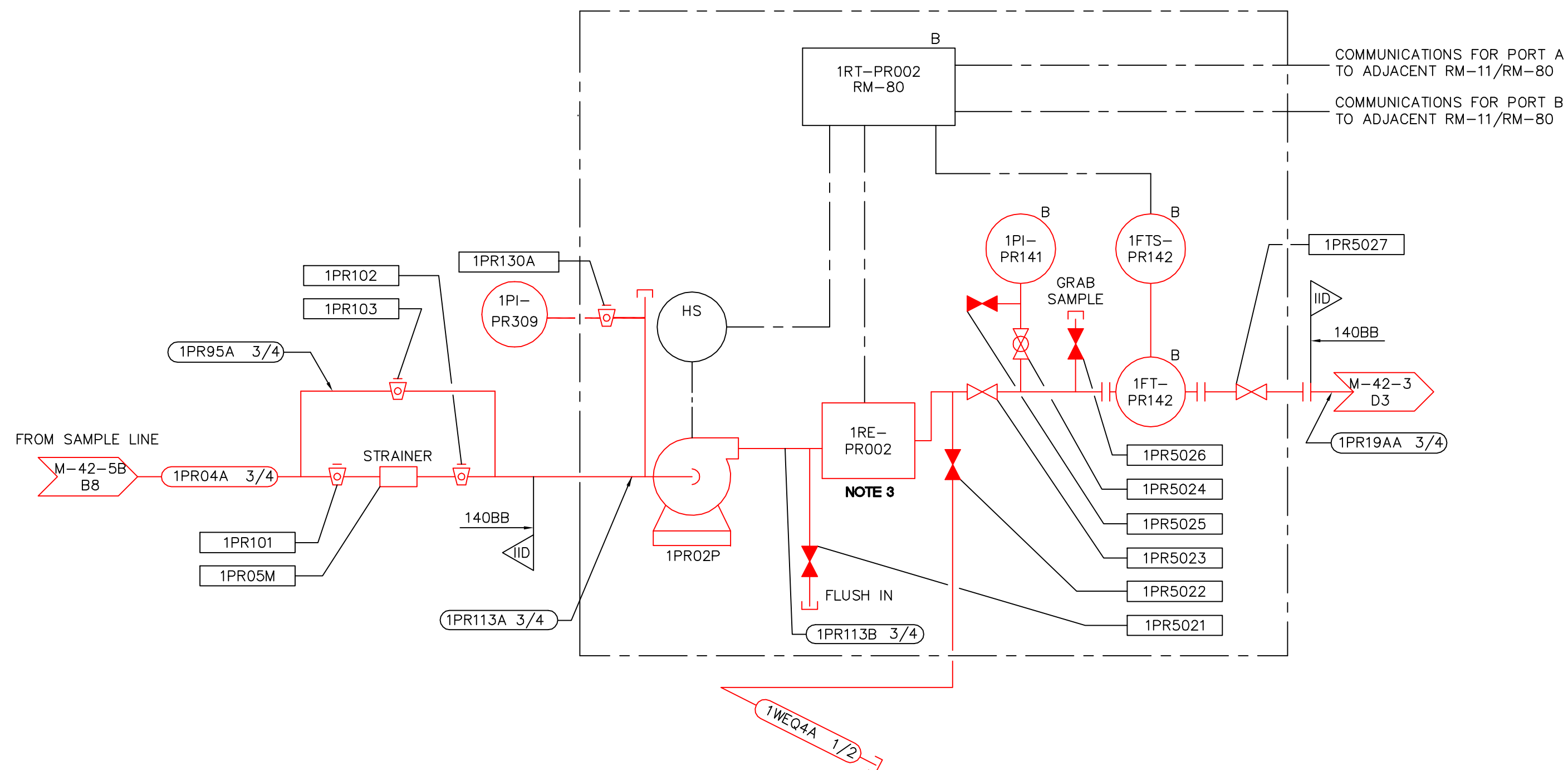
AUXILIARY BUILDING VENT STACK SAMPLE CONDITIONER SAMPLER AND NOBLE GAS MONITORS

VALVE NO	TEST TAP LINE NO	TEST TAP VALVE NO	LOC	FLOW SPLITTER	INLET LINE NO	FI	FT	FC	OUTLET LINE NO.	PUMP	PUMP	PUMP	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	
1PR080	1PR83A 3/4	1PR84A 3/4	1PR081	1PR082	1PR32J	1PR07M	1PR108A 3/4	1FI-PR220(E11)	1FT-PR219(E11)	1FC-PR219(E11)	1PR109A 3/4	1PR30PA	1PR30PB	1PR32P	1PR5263	1PR5264	1PR5265	1PR5266	1PR5267	1PR5268	1PR5269			
2PR080	2PR83A 3/4	2PR84A 3/4	2PR081	2PR082	2PR32J	2PR07M	2PR108A 3/4	2FI-PR220(E21)	2FT-PR219(E21)	2FC-PR219(E21)	2PR109A 3/4	2PR30PA	2PR30PB	2PR32P	2PR5263	2PR5264	2PR5265	2PR5266	2PR5267	2PR5268	2PR5269			

VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	
1PR5270	1PR5271	1PR5272	1PR5273	1PR5274	1PR5275	1PR5276	1PR5277	1PR5278	1PR5279	1PR5280	1PR5281	1PR5282	1PR5283	1PR5284	1PR5285	1PR5286	1PR5287	1PR5288	1PR5289	1PR5290	1PR5291	1PR5292	1PR5293	1PR5294
2PR5270	2PR5271	2PR5272	2PR5273	2PR5274	2PR5275	2PR5276	2PR5277	2PR5278	2PR5279	2PR5280	2PR5281	2PR5282	2PR5283	2PR5284	2PR5285	2PR5286	2PR5287	2PR5288	2PR5289	2PR5290	2PR5291	2PR5292	2PR5293	2PR5294

VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE
1PR5303	1PR5304	1PR5307	1PR5308	1PR5340	1PR5341	1PR5342	1PR5343
2PR5303	2PR5304	2PR5307	2PR5308	2PR5340	2PR5341	2PR5342	2PR5343

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
				O	J	R
				T	Y	P
NO DATE			DESCRIPTION	RVD	CKD	APD
			REVISION			
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF PROCESS						
RADIATION MONITORING SYSTEM						
UNITS 1 & 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-78			SHEET 12		0	



INLET LINE No	SUBSYSTEM	OUTLET LINE No	SUBSYSTEM	STRAINER BYPASS	SUBSYSTEM	DRAIN LINE No	SUBSYSTEM
2PR04A 3/4	2PRK37	2PR19AA 3/4	2PRK38	2PR95A 3/4	2PRK37	2WEQ4A 1/2	2WEK13
2PR04B 3/4	2PRK39	2PR19AB 3/4	2PRK40	2PR95B 3/4	2PRK39	2WEQ5A 1/2	2WEK13

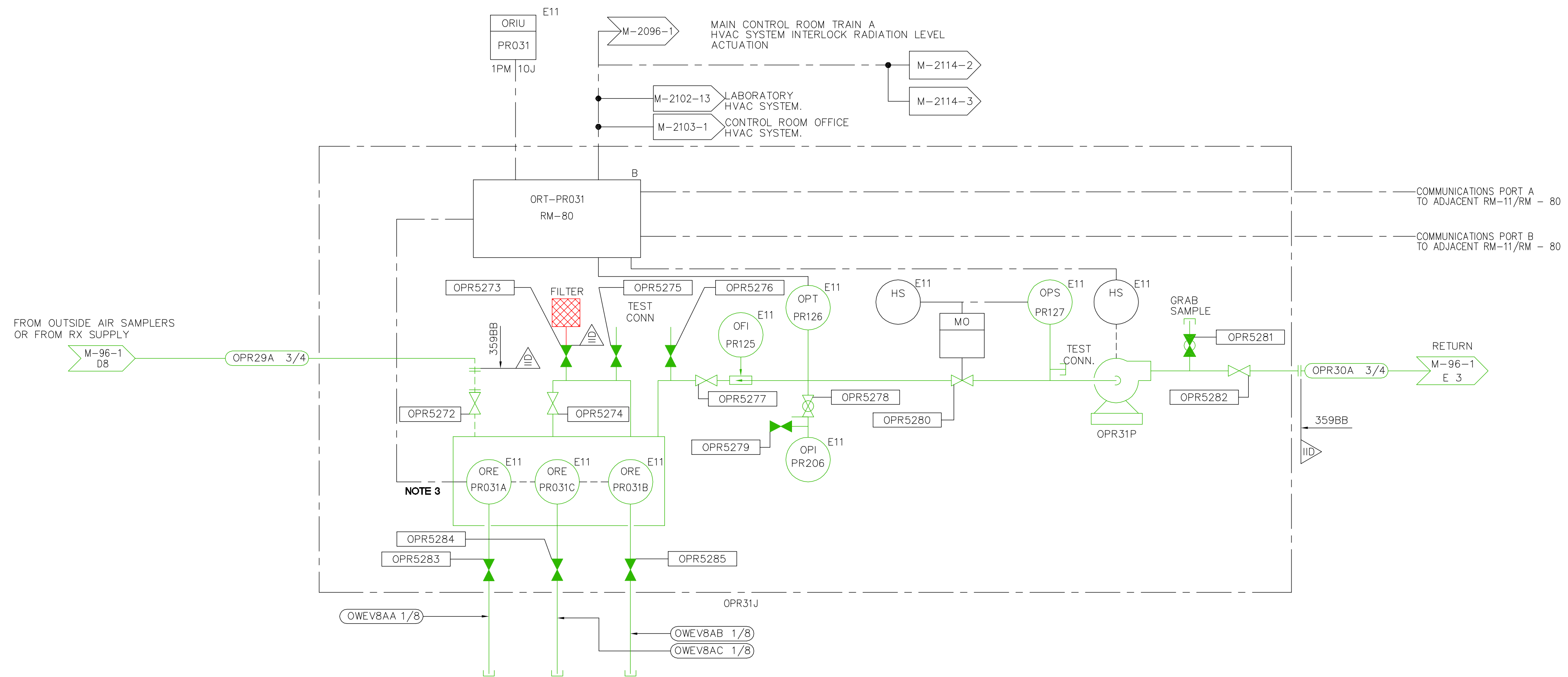
LOCATION	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	PUMP	INLET LINE NO.	OUTLET LINE NO.	BYPASS LINE NO.
1PR02J		1PR5021	1PR5022	1PR5023	1PR5024	1PR5025	1PR5026	1PR5027		1PR130A	1PR02P	1PR113A 3/4	1PR113B 3/4	
2PR02J		2PR5021	2PR5022	2PR5023	2PR5024	2PR5025	2PR5026	2PR5027		2PR5512	2PR02P	2PR113A 3/4	2PR113B 3/4	
1PR03J		1PR5034	1PR5035	1PR5036	1PR5037	1PR5038	1PR5039	1PR5040		1PR130B	1PR03P	1PR114A 3/4	1PR114B 3/4	
2PR03J		2PR5034	2PR5035	2PR5036	2PR5037	2PR5038	2PR5039	2PR5040		2PR130B	2PR03P	2PR114A 3/4	2PR114B 3/4	

SERVICE	LIQUID DETECTOR (RE)	TRANSMITTER (RT RM-80)	INLET PI	OUTLET PI	TRANSMITTER FT	FIS	LOC.	INLET LINE NO.	RETURN LINE NO.	INLET LINE P&ID LOC	RETURN LINE P&ID LOC	LIQUID DETECTOR DRAIN LINE NO	STRAINER	STRAINER INLET ISOLATION VALVE	STRAINER OUTLET ISOLATION VALVE	STRAINER BYPASS VALVE	STRAINER BYPASS LINE NO
RCFC 1A & 1C SERVICE WATER OUTLET UNIT 1	1RE-PR002 (B)	1RT-PR002 (B)	1PI-PR309	1PI-PR141 (B)	1FT-PR142 (B)	1FIS-PR142(B)	1PR02J	1PR04A 3/4	1PR19AA 3/4	M-42-5B,B8	M-42-3, D3	1WEQ4A 1/2	1PR05M	1PR101	1PR102	1PR103	1PR95A 3/4
RCFC 2A & 2C SERVICE WATER OUTLET UNIT 2	2RE-PR002 (B)	2RT-PR002 (B)	2PI-PR310	2PI-PR141 (B)	2FT-PR142 (B)	2FIS-PR142(B)	2PR02J	2PR04A 3/4	2PR19AA 3/4	M-126-3,A8	M-126-1, D6	2WEQ4A 1/2	2PR05M	2PR101	2PR102	2PR103	2PR95A 3/4
RCFC 1B & 1D SERVICE WATER OUTLET UNIT 1	1RE-PR003 (B)	1RT-PR003 (B)	1PI-PR311	1PI-PR144 (B)	1FT-PR145 (B)	1FIS-PR145(B)	1PR03J	1PR04B 3/4	1PR19AB 3/4	M-42-5A,B1	M-42-3, B4	1WEQ5A 1/2	1PR06M	1PR104	1PR105	1PR106	1PR95B 3/4
RCFC 2B & 2D SERVICE WATER OUTLET UNIT 2	2RE-PR003 (B)	2RT-PR003 (B)	2PI-PR311	2PI-PR144 (B)	2FT-PR145 (B)	2FIS-PR145(B)	2PR03J	2PR04B 3/4	2PR19AB 3/4	M-126-3,A1	M-126-1, B5	2WEQ5A 1/2	2PR06M	2PR104	2PR105	2PR106	2PR95B 3/4

NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-78, SHEET 14, REVISION 0.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 RMS- RADIATION MONITORING SYSTEM  
 3. RADIATION DETECTOR SAMPLE CHAMBER IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P O T	J J Y	A R P
NOI DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PROCESS RADIATION MONITORING SYSTEM UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-78	SHEET 14	0		





SERVICE	PARTICULATE DETECTOR	GAS DETECTOR	IODINE DETECTOR	TRANSMITTER RT (RM-80)	FI	OPT	PS	LOCATION	INLET LINE NO.	RETURN LINE NO.	INLET LINE P&ID/LOC.	RETURN LINE P&ID/LOC.	PARTICULATE DETECTOR DRAIN LINE NO.	GAS DETECTOR DRAIN LINE NO.	IODINE DETECTOR DRAIN LINE NO.	PUMP	PI	RIU	DIV.
CONTROL RM OUTSIDE AIR INTAKE A-AIR	ORE-PRO31A	ORE-PRO31B	ORE-PRO31C	ORT-PRO31	OPI-PR125	OPT-PR126	OPS-PR127	OPR31J	OPR29A 3/4	OPR30A 3/4	M-96-1, D8	M-96-1, E3	OWEV8AA 1/8"	OWEV8AB 1/8"	OWE V8AC 1/8"	OPR31P	OPI-PR206	ORIU-PRO31	E11
CONTROL RM OUTSIDE AIR INTAKE A-AIR	ORE-PRO32A	ORE-PRO32B	ORE-PRO32C	ORT-PRO32	OPI-PR128	OPT-PR129	OPS-PR130	OPR32J	OPR31A 3/4	OPR32A 3/4	M-96-1, D8	M-96-1, E2	OWEV9AA 1/8"	OWEV9AB 1/8"	OWE V9AC 1/8"	OPR32P	OPI-PR207	ORIU-PRO32	E11
CONTROL RM OUTSIDE AIR INTAKE B-AIR	ORE-PRO33A	ORE-PRO33B	ORE-PRO33C	ORT-PRO33	OPI-PR131	OPT-PR132	OPS-PR133	OPR33J	OPR37A 3/4	OPR38A 3/4	M-96-2, D8	M-96-2, E3	OWEW1AA 1/8"	OWEW1AB 1/8"	OWE W1AC 1/8"	OPR33P	OPI-PR208	ORIU-PRO33	E12
CONTROL RM OUTSIDE AIR INTAKE B-AIR	ORE-PRO34A	ORE-PRO34B	ORE-PRO34C	ORT-PRO34	OPI-PR134	OPT-PR135	OPS-PR136	OPR34J	OPR39A 3/4	OPR40A 3/4	M-96-2, D8	M-96-2, E2	OWEW2AA 1/8"	OWEW2AB 1/8"	OWE W2AC 1/8"	OPR34P	OPI-PR209	ORIU-PRO34	E12
CONTROL RM TURB BLDG. AIR INTAKE A-AIR	ORE-PRO35A	ORE-PRO35B	ORE-PRO35C	ORT-PRO35	OPI-PR137	OPT-PR138	OPS-PR140	OPR35J	OPR33A 3/4	OPR34A 3/4	M-96-1, C6	M-96-1, C6	OWEW3AA 1/8"	OWEW3AB 1/8"	OWE W3AC 1/8"	OPR35P	OPI-PR210	ORIU-PRO35	E11
CONTROL RM TURB BLDG. AIR INTAKE A-AIR	ORE-PRO36A	ORE-PRO36B	ORE-PRO36C	ORT-PRO36	OPI-PR141	OPT-PR142	OPS-PR143	OPR36J	OPR35A 3/4	OPR36A 3/4	M-96-1, C6	M-96-1, C6	OWEW4AA 1/8"	OWEW4AB 1/8"	OWE W4AC 1/8"	OPR36P	OPI-PR211	ORIU-PRO36	E11
CONTROL RM TURB BLDG. AIR INTAKE B-AIR	ORE-PRO37A	ORE-PRO37B	ORE-PRO37C	ORT-PRO37	OPI-PR144	OPT-PR145	OPS-PR146	OPR37J	OPR41A 3/4	OPR42A 3/4	M-96-2, C6	M-96-2, C6	OWEW5AA 1/8"	OWEW5AB 1/8"	OWE W5AC 1/8"	OPR37P	OPI-PR212	ORIU-PRO37	E12
CONTROL RM TURB BLDG. AIR INTAKE B-AIR	ORE-PRO38A	ORE-PRO38B	ORE-PRO38C	ORT-PRO38	OPI-PR147	OPT-PR148	OPS-PR150	OPR38J	OPR43A 3/4	OPR44A 3/4	M-96-2, C6	M-96-2, C6	OWEW6AA 1/8"	OWEW6AB 1/8"	OWE W6AC 1/8"	OPR38P	OPI-PR213	ORIU-PRO38	E12

CONTROL ROOM AIR INTAKE PARTICULATE, IODINE GAS MONITORS

LOCATION	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE
OPR31J	OPR5272	OPR5273	OPR5274	OPR5275	OPR5276	OPR5277	OPR5278	OPR5279	OPR5280	OPR5281	OPR5282	OPR5283	OPR5284	OPR5285
OPR32J	OPR5288	OPR5289	OPR5290	OPR5291	OPR5292	OPR5293	OPR5294	OPR5295	OPR5296	OPR5297	OPR5298	OPR5299	OPR5300	OPR5301
OPR33J	OPR5304	OPR5305	OPR5306	OPR5307	OPR5308	OPR5309	OPR5310	OPR5311	OPR5312	OPR5313	OPR5314	OPR5315	OPR5316	OPR5317
OPR34J	OPR5320	OPR5321	OPR5322	OPR5323	OPR5324	OPR5325	OPR5326	OPR5327	OPR5328	OPR5329	OPR5330	OPR5331	OPR5332	OPR5333
OPR35J	OPR5336	OPR5337	OPR5338	OPR5339	OPR5340	OPR5341	OPR5342	OPR5343	OPR5344	OPR5345	OPR5346	OPR5347	OPR5348	OPR5349
OPR36J	OPR5352	OPR5353	OPR5354	OPR5355	OPR5356	OPR5357	OPR5358	OPR5359	OPR5360	OPR5361	OPR5362	OPR5363	OPR5364	OPR5365
OPR37J	OPR5368	OPR5369	OPR5370	OPR5371	OPR5372	OPR5373	OPR5374	OPR5375	OPR5376	OPR5377	OPR5378	OPR5379	OPR5380	OPR5381
OPR38J	OPR5384	OPR5385	OPR5386	OPR5387	OPR5388	OPR5389	OPR5390	OPR5391	OPR5392	OPR5393	OPR5394	OPR5395	OPR5396	OPR5397

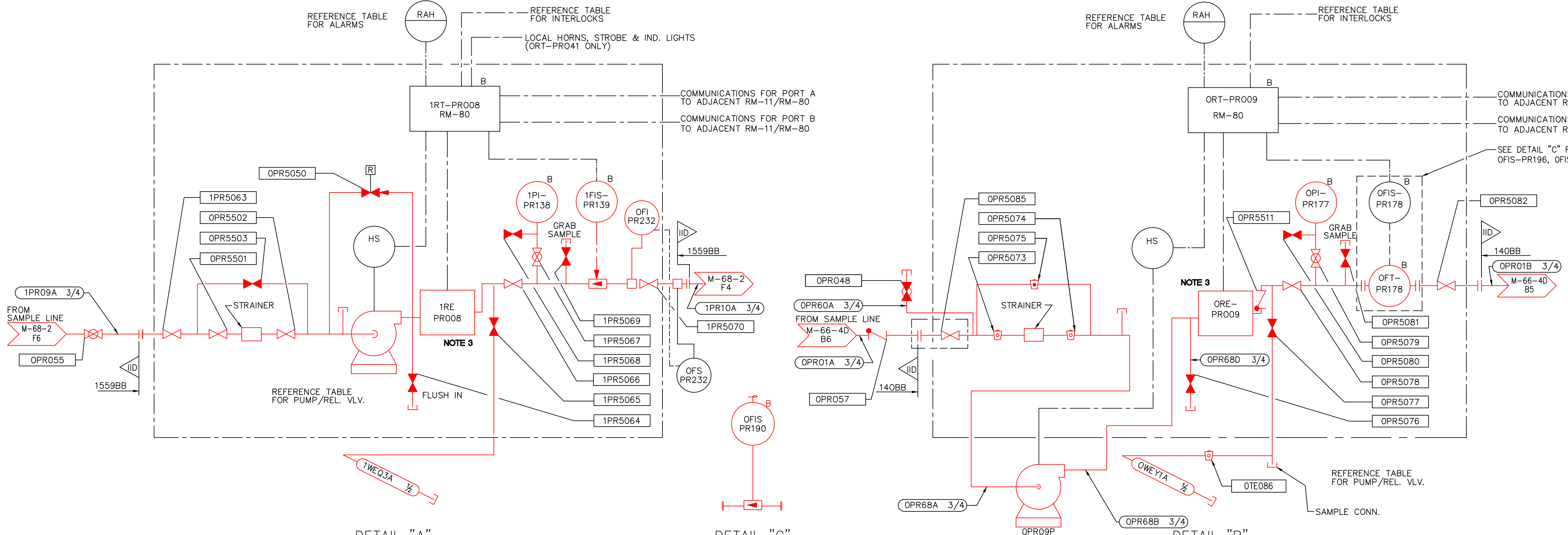
- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-78, SHEET 2, REVISION S.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
RMS- RADIATION MONITORING SYSTEM
  - RADIATION DETECTOR PRESSURE BOUNDARY IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P O T	J J Y	A R P
NO DATE	DESCRIPTION	RWD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PROCESS RADIATION MONITORING SYSTEM UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-78	SHEET 2	0		





DET.	DRAIN LINE NO.	PP INLET LINE NO.	PP OUTLET LINE NO.	BYPASS LINE NO.	LOCATION	PUMP	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	VALVE	
B		OPR67A 3/4	OPR67B 3/4		OPR10J	OPR10P	OPR5085					OPR5086	OPR5087	OPR5088	OPR5089	OPR5090	OPR5091	OPR5092	OPR5093	
A					1PR08J		1PR5063					1PR5064	1PR5065	1PR5066	1PR5067	1PR5068	1PR5069	1PR5070		
A					2PR08J		2PR5063					2PR5064	2PR5065	2PR5066	2PR5067	2PR5068	2PR5069	2PR5070		
A					1PR07J		1PR5054					1PR5055	1PR5056	1PR5057	1PR5058	1PR5059	1PR5060			
A					2PR07J		2PR5053					2PR5054	2PR5055	2PR5056	2PR5057	2PR5058	2PR5059	2PR5060		
B	OPR68D 3/4	OPR68A 3/4	OPR68B 3/4		OPR09J	OPR09P			OPR5073	OPR5074	OPR5075	OPR5076	OPR5077	OPR5078	OPR5079	OPR5080	OPR5081	OPR5082	OPR5083	
B		1PR112A 3/4	1PR112B 3/4		1PR08J	1PR09P	1PR5073		1PR5074	1PR5075	1PR5076	1PR5077	1PR5078	1PR5079	1PR5080	1PR5081	1PR5082	1PR5083		
B		2PR112A 3/4	2PR112B 3/4		2PR09J	2PR09P			2PR5074	2PR5075	2PR5076	2PR5077	2PR5078	2PR5079	2PR5080	2PR5081	2PR5082	2PR5083		
A					OPR06J	OPR06P	OPR5042					OPR5043	OPR5044	OPR5045	OPR5046	OPR5047	OPR5048	OPR5049	OPR5050	
A					OPR07J	OPR07P	OPR5052					OPR5053	OPR5054	OPR5055	OPR5056	OPR5057	OPR5058	OPR5059	OPR5060	
A					OPR08J	OPR08P	OPR5062					OPR5063	OPR5064	OPR5065	OPR5066	OPR5067	OPR5068	OPR5069	OPR5070	
B		OPR69A 3/4	OPR69B 3/4		OPR16J	OPR16P	OPR5153					OPR5154	OPR5155	OPR5156	OPR5157	OPR5158	OPR5159	OPR5160		
B		OPR70A 3/4	OPR70B 3/4		OPR17J	OPR17P	OPR5163					OPR5164	OPR5165	OPR5166	OPR5167	OPR5168	OPR5169	OPR5170		
B		OPR71A 3/4	OPR71B 3/4		OPR18J	OPR18P	OPR5173					OPR5174	OPR5175	OPR5176	OPR5177	OPR5178	OPR5179	OPR5180		
B		OPR72A 3/4	OPR72B 3/4		OPR19J	OPR19P	OPR5183					OPR5184	OPR5185	OPR5186	OPR5187	OPR5188	OPR5189	OPR5190		
B		OPR73A 3/4	OPR73B 3/4		OPR05J	OPR05P	OPR5422					OPR5423	OPR5424	OPR5425	OPR5426	OPR5427	OPR5428	OPR5429	OPR5430	
A					OPR41J		OPR5500	OPR5501	OPR5502	OPR5503	OPR5504	OPR5505	OPR5506	OPR5507	OPR5508	OPR5509	OPR5510			OPR5511



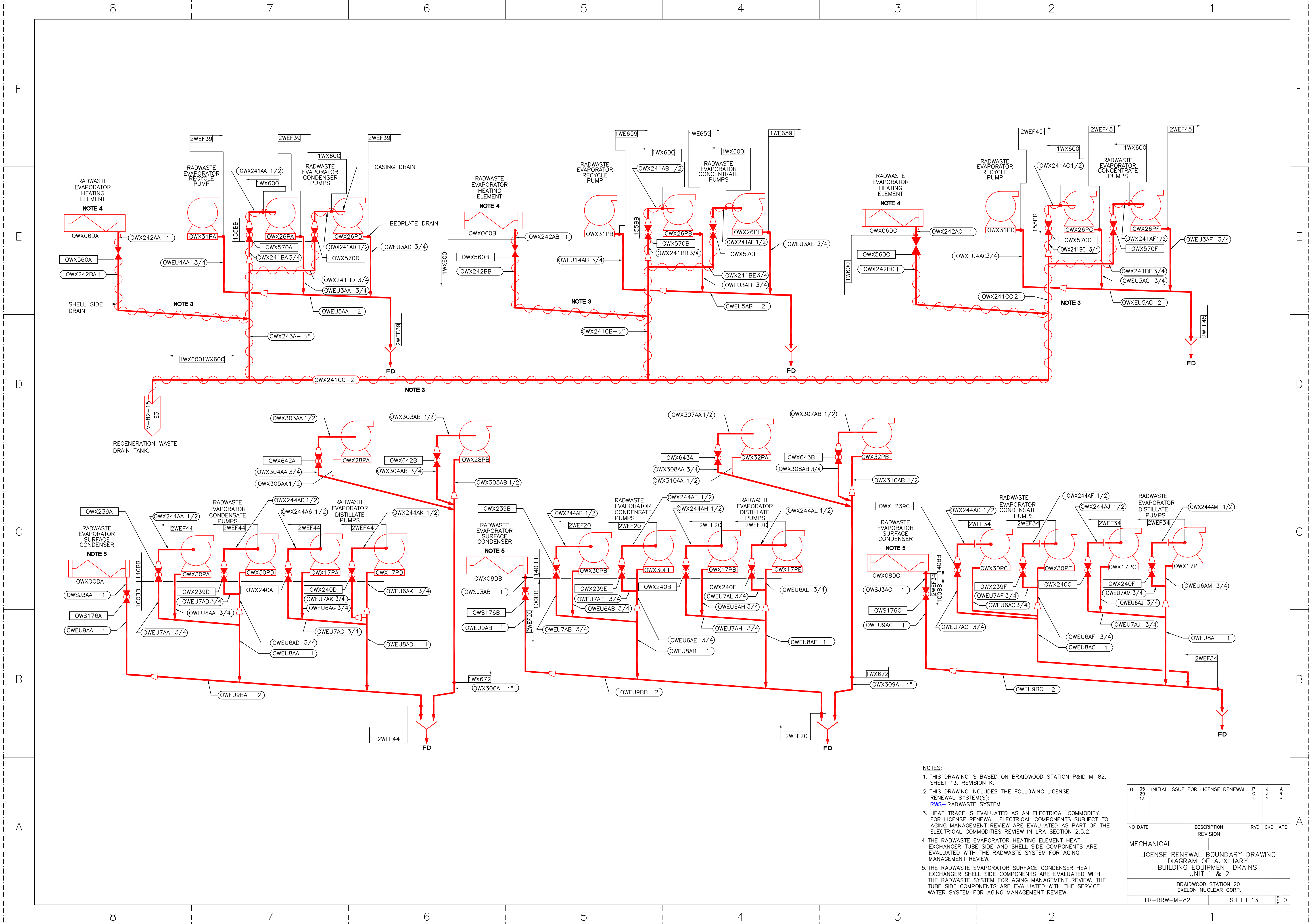
DET.	SERVICE	LIQUID DETECTOR(RE)	TRANSMITTER	PI	TRANSMITTER	FIS	PUMP/REL. VL.V.	LOC.	INLET LINE NO.	RETURN LINE NO.	INLET LINE P&ID/LSC	RETURN LINE P&ID/LSC	LIQUID DETECTOR	DRAIN LINE NO.	PIPE CLASS	PIPE DESIGN TABLE	LOC. ALARM	INTER LOCKS	FI	FS
B	STATION BLDN.	ORE-PRO10(B)	ORT-PRO10(B)	OPI-PR174(B)	OFT-PR175(B)	OFIS-PR175(B)	NO	OPR10J	OPR09A 3/4	OPR08A 3/4	M-44-3A, D5	M-44-3A, D7	OQE3A	1/2"	IID	140BB				
A	STM. GEN. BLDN. UNIT 1	1RE-PRO08(B)	1RT-PRO08(B)	1PI-PR138(B)		1FIS-PR139(B)	NO	1PR08J	1PR09A 3/4	1PR10A 3/4	M-68-2, F-6	M-68-2, F-4	1WEQ3A	1/2"	IID	1559BB		CLOSE VLVS. 1PS179 A-D		
A	STM. GEN. BLDN. UNIT 2	2RE-PRO08(B)	2RT-PRO08(B)	2PI-PR138(B)		2FIS-PR139(B)	NO	2PR08J	2PR09A 3/4	2PR10A 3/4	M-68-2, F-6	M-68-2, F-3	2WEQ3A	1/2"	IID	1559BB		CLOSE VLVS. 2PS179 A-D		
A	CD CLEAN UP AREA SUMP PUMP DISC.	ORE-PRO41(B)	ORT-PRO41(B)	OPI-PR233(B)			NO	OPR41J	OPR96A 3/4	OPR97A 3/4	M-39-7 D-3	M-39-7 D-6	OQE137A	1/2"	IID	140BB		TRIPS PUMPS OCP04P & OCP05P	OFI-PR232	OFS-PR232
A	BTR CHILLER SURGE UNIT 1 TK RETURN	1RE-PRO07(B)	1RT-PRO07(B)	1PI-PR147(B)		1FIS-PR148(B)	NO	1PR07J	1PR05A 3/4	1PR06A 3/4	M-64-8 E7	M-64-8, F-2	1WEQ6A	1/2"	IID	140BB				
A	BTR CHILLER SURGE UNIT 2 TK RETURN	2RE-PRO07(B)	2RT-PRO07(B)	2PI-PR147(B)		2FIS-PR148(B)	NO	2PR07J	2PR05A 3/4	2PR06A 3/4	M-138-8, B-6	M-64-8, F-1	2WEQ6A	1/2"	IID	140BB				
B	CC HT. EX. 0 SERV. WTR. OUTLET	ORE-PRO09(B)	ORT-PRO09(B)	OPI-PR177(B)	OFT-PR178(B)	OFIS-PR178(B)	YES	OPR09J	OPR01A 3/4	OPR01B 3/4	M-66-4D, B6	M-66-4D, B5	OWEY1A	1/2"	IID	140BB		TO CLOSE VL.V. 1CC-RCV017 & 2CC-RCV017		
B	CC HT. EX. 1 SERV. WTR. OUTLET	1RE-PRO09(B)	1RT-PRO09(B)	1PI-PR150(B)	1FT-PR151(B)	1FIS-PR151(B)	NO	1PR09J	1PR01A 3/4	1PR01B 3/4	M-66-4D, B8	M-66-4D, B8	1WEQ7A	1/2"	IID	140BB		TO CLOSE VL.V. 1CC-RCV017		
B	CC HT. EX. 2 SERV. WTR. OUTLET	2RE-PRO09(B)	2RT-PRO09(B)	2PI-PR150(B)	2FT-PR151(B)	2FIS-PR151(B)	NO	2PR09J	2PR01A 3/4	2PR01B 3/4	M-66-4D, B4	M-66-4D, B1	2WEQ7A	1/2"	IID	359BB		TO CLOSE VL.V. 2CC-RCV017		
A	RAD. EVAP. OA CNDS. RETURN	ORE-PRO06(B)	ORT-PRO06(B)	OPI-PR180(B)		OFIS-PR181(B)	YES	OPR06J	OPR12AA 3/4	OPR03A 3/4	M-48-9, B7	M-56-4C, C2	OWEY2A	1/2"	IID	140BB	OWX03J			
A	RAD. EVAP. OB CNDS. RETURN	ORE-PRO07(B)	ORT-PRO07(B)	OPI-PR183(B)		OFIS-PR184(B)	YES	OPR07J	OPR12AB 3/4	OPR04A 3/4	M-48-11, C8	M-56-4C, B2	OWEY3A	1/2"	IID	140BB	OWX03J			
A	RAD. EVAP. OC CNDS. RETURN	ORE-PRO08(B)	ORT-PRO08(B)	OPI-PR186(B)		OFIS-PR187(B)	YES	OPR08J	OPR12AC 3/4	OPR05A 3/4	M-48-13, D8	M-56-4C, F1	OWEY4A	1/2"	IID	140BB	OWX03J			
B	BLDN. ATRER FILT. OA OUTLET	ORE-PRO16(B)	ORT-PRO16(B)	OPI-PR189(B)		OFIS-PR190(B)	NO	OPR16J	OPR10AA 3/4	OPR11AC 3/4	M-48-3B, B1	M-48-3B, A1	OWEY5A	1/2"	IID	140BB	OPL01J	TO OPEN & CLOSE VLVS. OWX 058A & OWX 119A		
B	BLDN. ATRER FILT. OB OUTLET	ORE-PRO17(B)	ORT-PRO17(B)	OPI-PR192(B)		OFIS-PR193(B)	NO	OPR17J	OPR10AB 3/4	OPR11AD 3/4	M-48-3A, B1	M-48-3A, A1	OWEY6A	1/2"	IID	140BB	OPL01J	TO OPEN & CLOSE VLVS. OWX 058B & OWX 119B		
B	BLDN. ATRER FILT. OC OUTLET	ORE-PRO18(B)	ORT-PRO18(B)	OPI-PR195(B)		OFIS-PR196(B)	NO	OPR18J	OPR10AC 3/4	OPR11AA 3/4	M-48-20B, B1	M-48-20B, A1	OWEY7A	1/2"	IID	140BB	OPL01J	TO OPEN & CLOSE VLVS. OWX 058C & OWX 119C		
B	BLDN. ATRER FILT. OD OUTLET	ORE-PRO19(B)	ORT-PRO19(B)	OPI-PR198(B)		OFIS-PR199(B)	NO	OPR19J	OPR10AD 3/4	OPR11AB 3/4	M-48-20A, B1	M-48-20A, A1	OWEY8A	1/2"	IID	140BB	OPL01J	TO OPEN & CLOSE VLVS. OWX 058D & OWX 119D		
B	TURB. BLDG. FIRE & OIL SUMP	ORE-PRO05(B)	ORT-PRO05(B)	OPI-PR229(B)	OFT-PR230(B)	OFIS-PR230(B)	NO	OPR05J	OPR61A 1	OPR62A 3/4	M-48-16 E-7	M-48-16 E-7			IID	140BB	OPL02J	TO TRIP PUMPS ODD03PA THRU ODD03PD AND CLOSE VALVE ODD030		

MISC. LIQUID RADIATION MONITORS.

- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-78, SHEET 7, REVISION AJ.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
RMS - RADIATION MONITORING SYSTEM
  - RADIATION DETECTOR LEAKAGE BOUNDARY IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

NO	DATE	DESCRIPTION	RVD	CKD	APD
05	29	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
13			O	J	R
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF					
RENEWAL SYSTEM(S):					
RMS - RADIATION MONITORING SYSTEM					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-78			SHEET 7		0





NOTE 3

NOTE 4

NOTE 3

NOTE 5

NOTE 5

NOTE 5

- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-82, SHEET 13, REVISION K.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
RWS - RADWASTE SYSTEM
  3. HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  4. THE RADWASTE EVAPORATOR HEATING ELEMENT HEAT EXCHANGER TUBE SIDE AND SHELL SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW.
  5. THE RADWASTE EVAPORATOR SURFACE CONDENSER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE RADWASTE SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		O	J	R
			T	Y	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF AUXILIARY					
BUILDING EQUIPMENT DRAINS					
UNIT 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-82		SHEET 13			0



8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

E

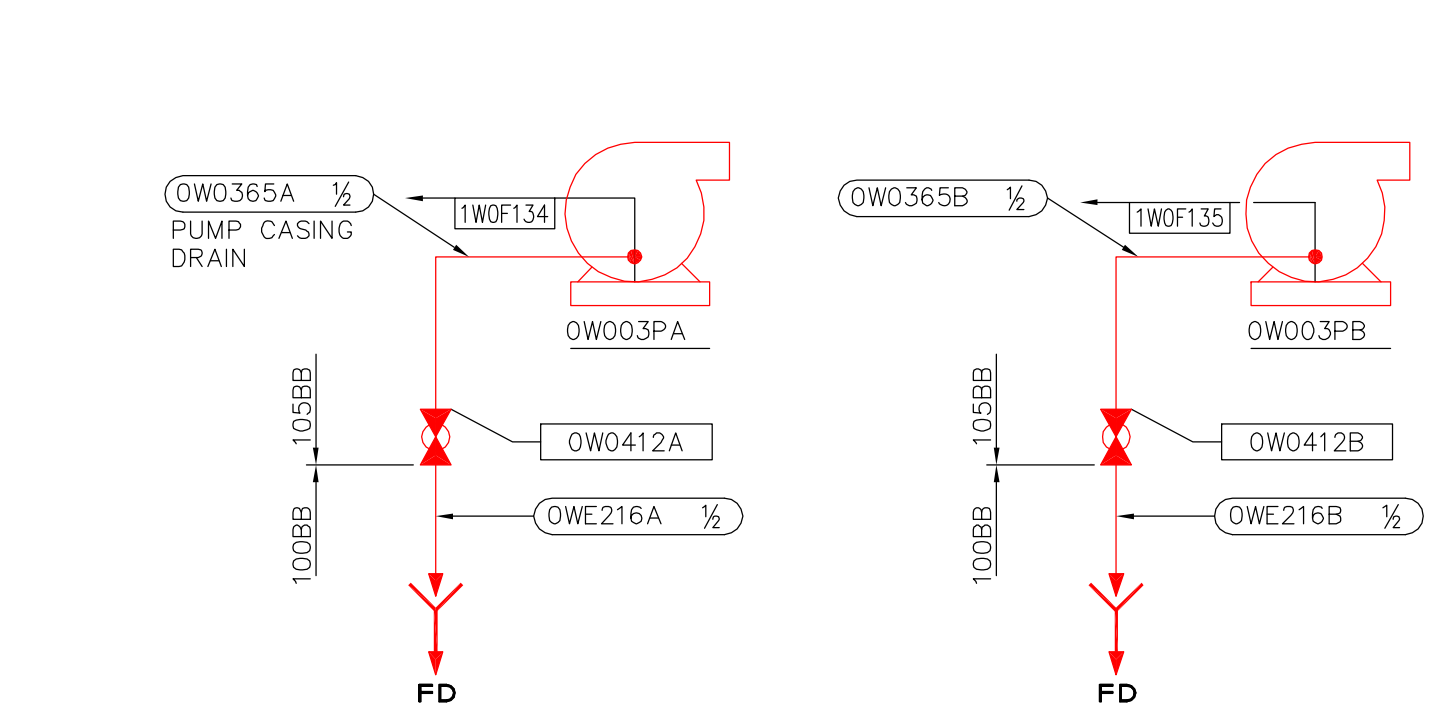
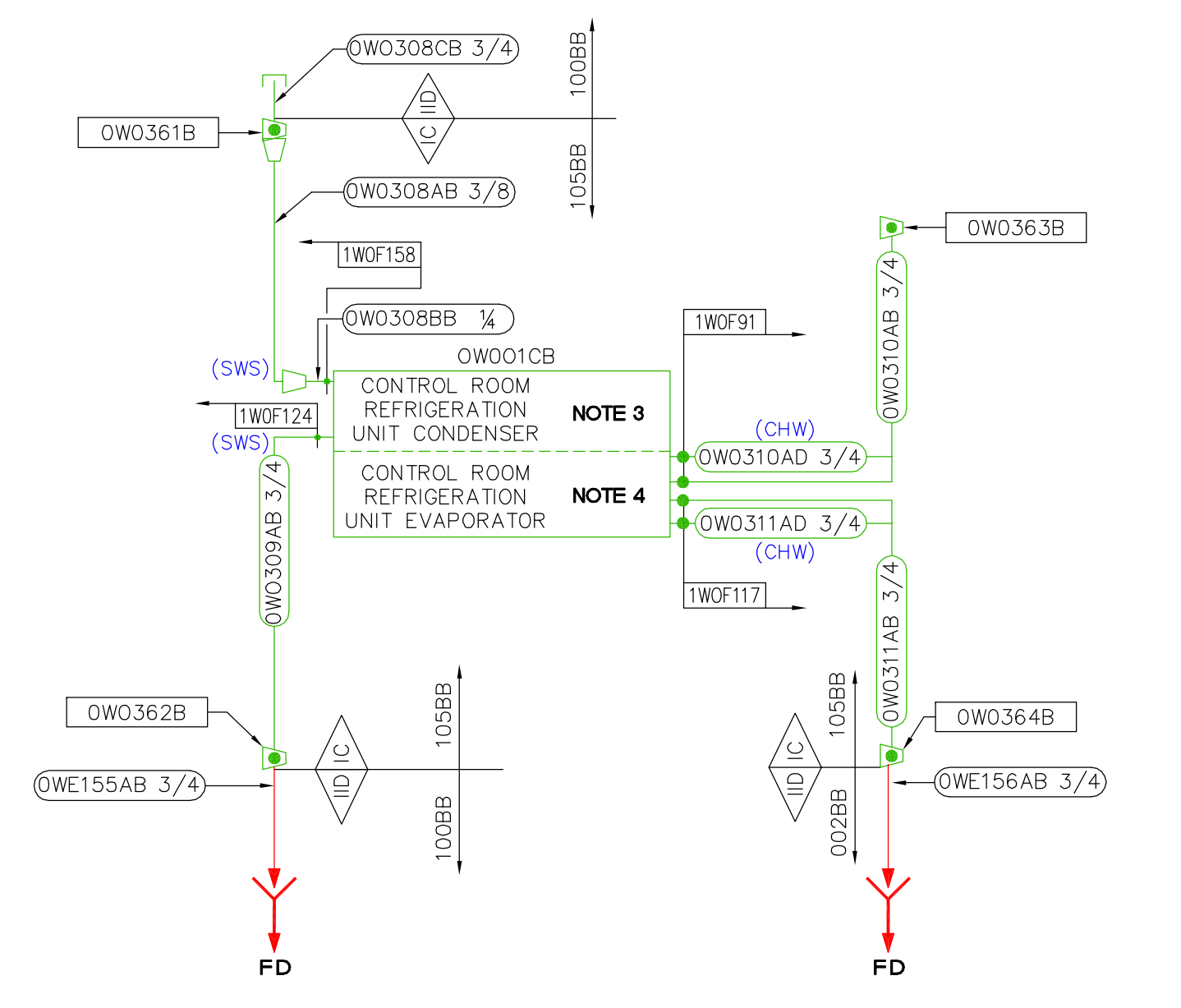
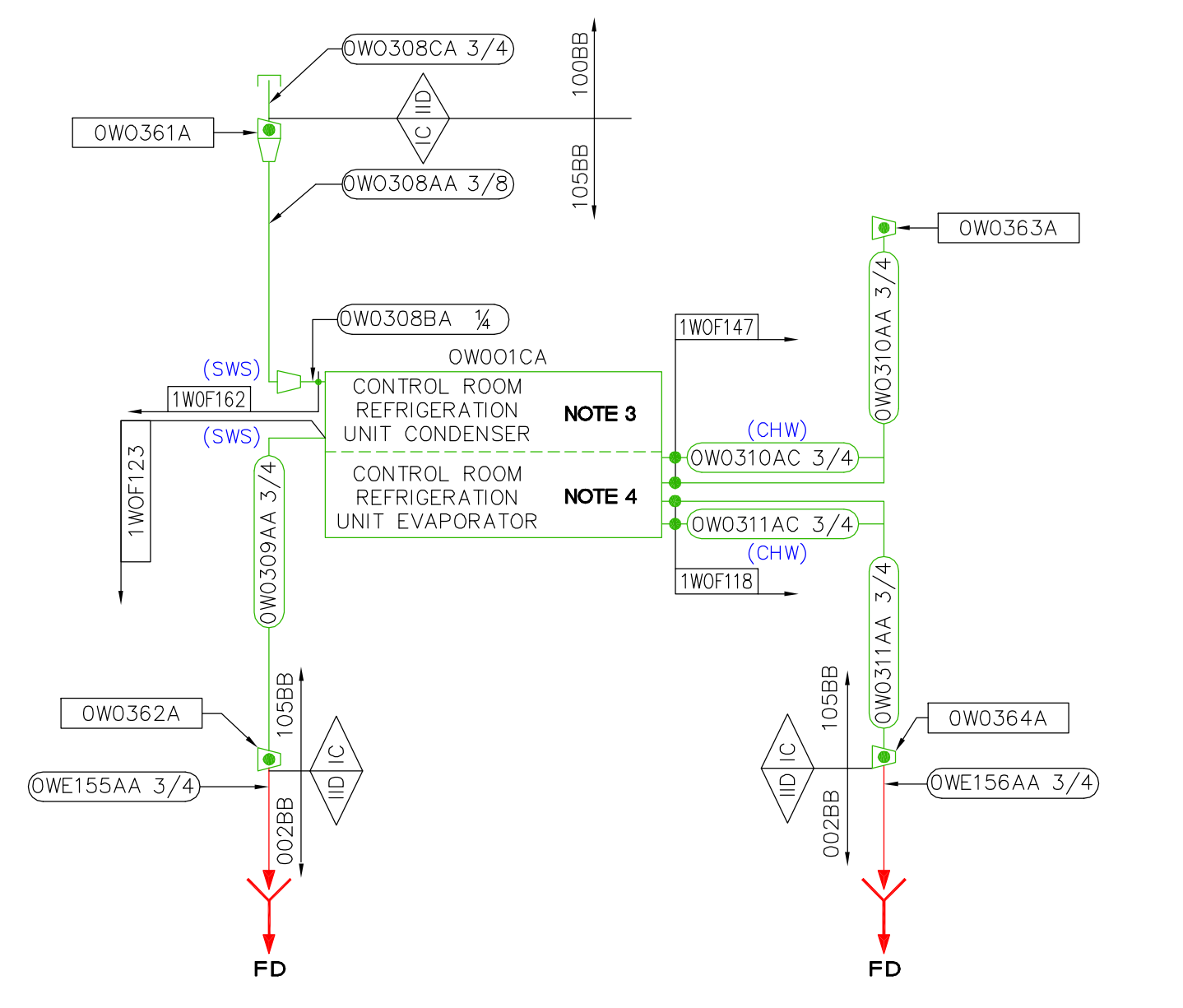
D

C

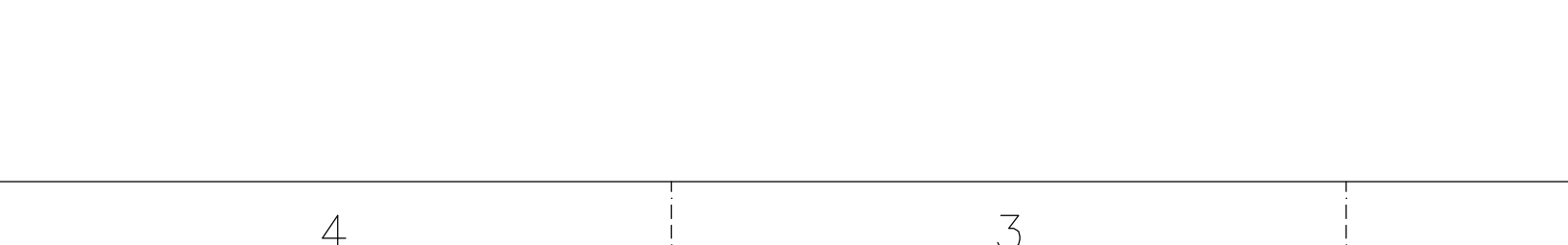
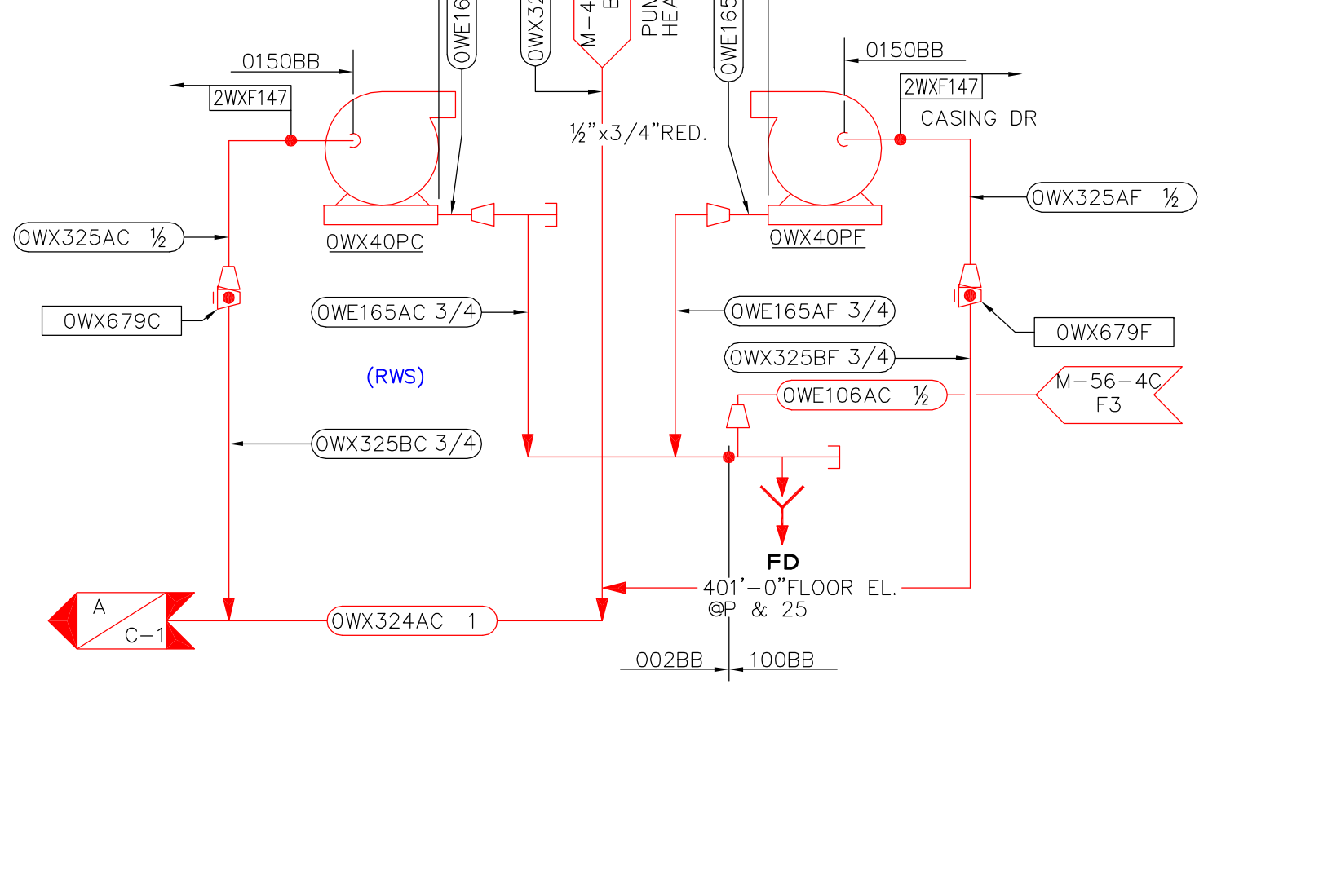
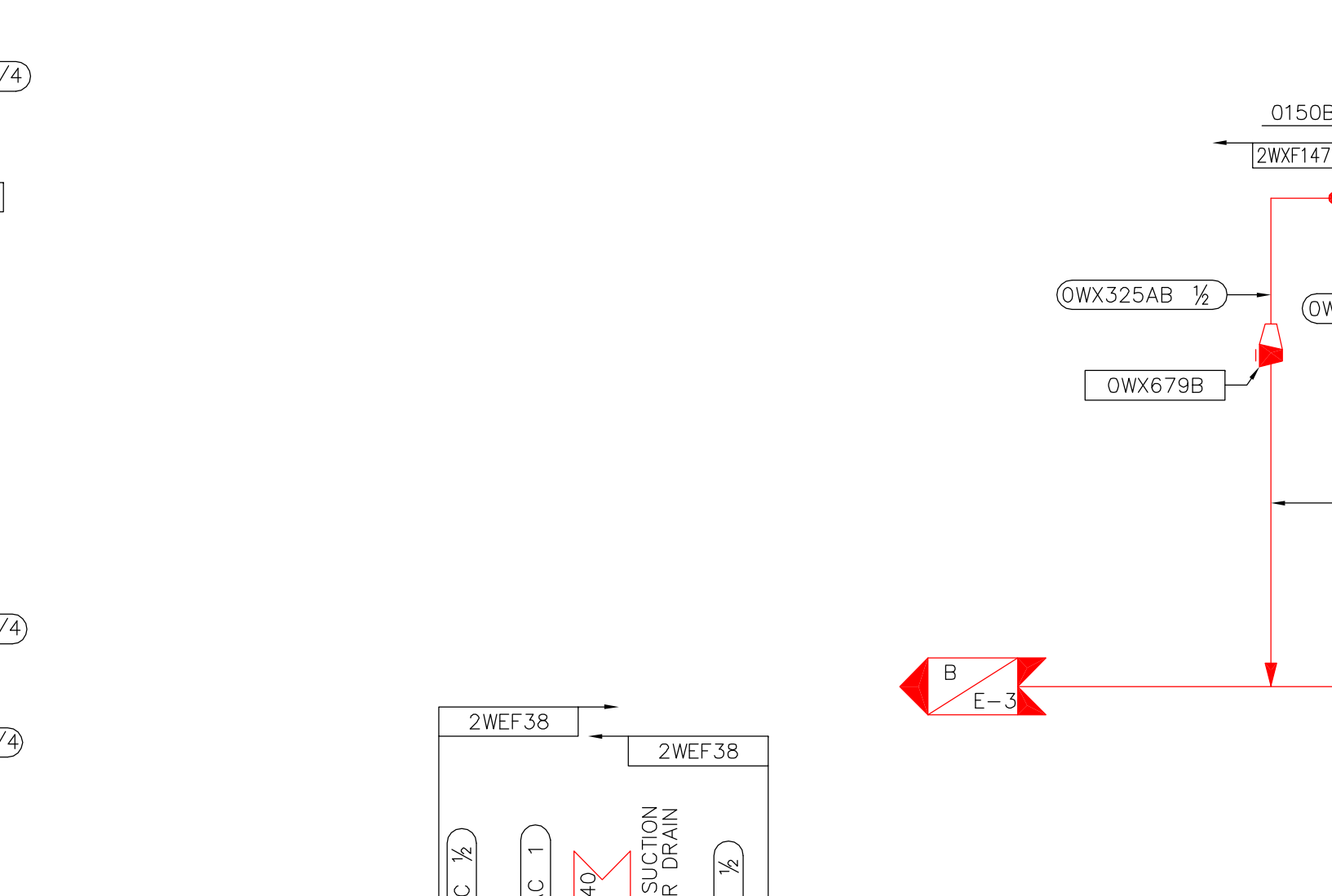
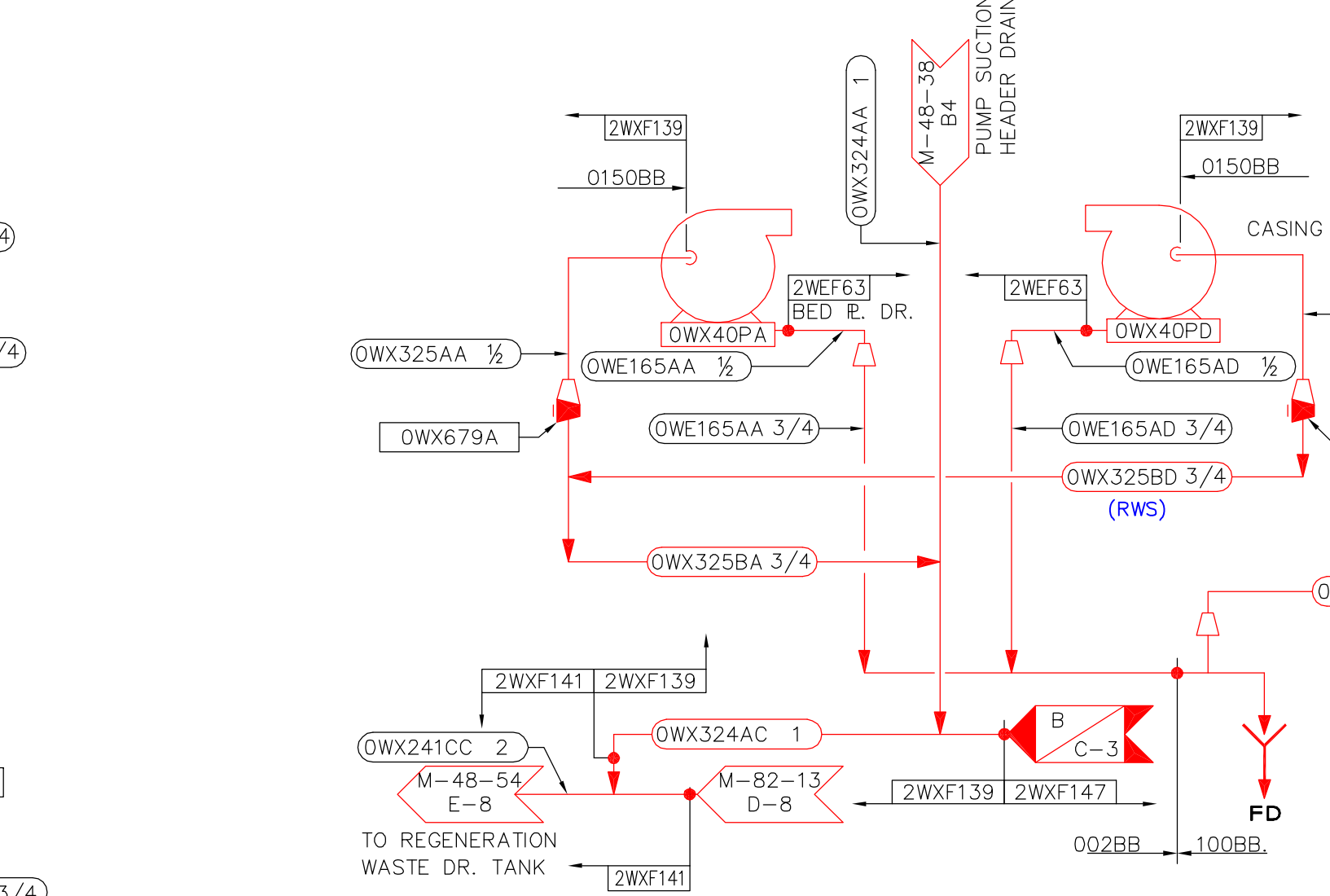
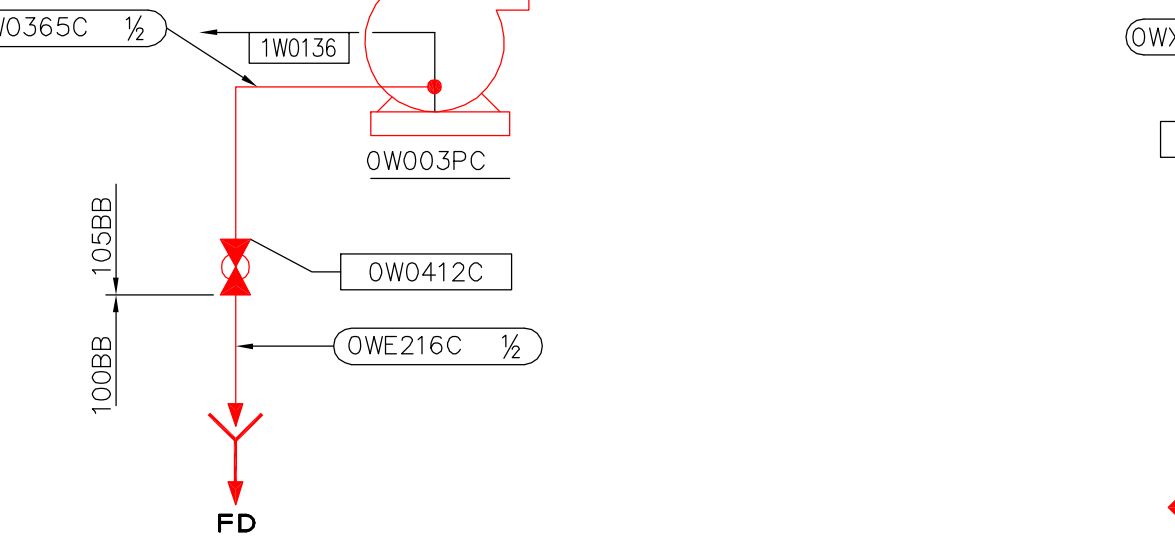
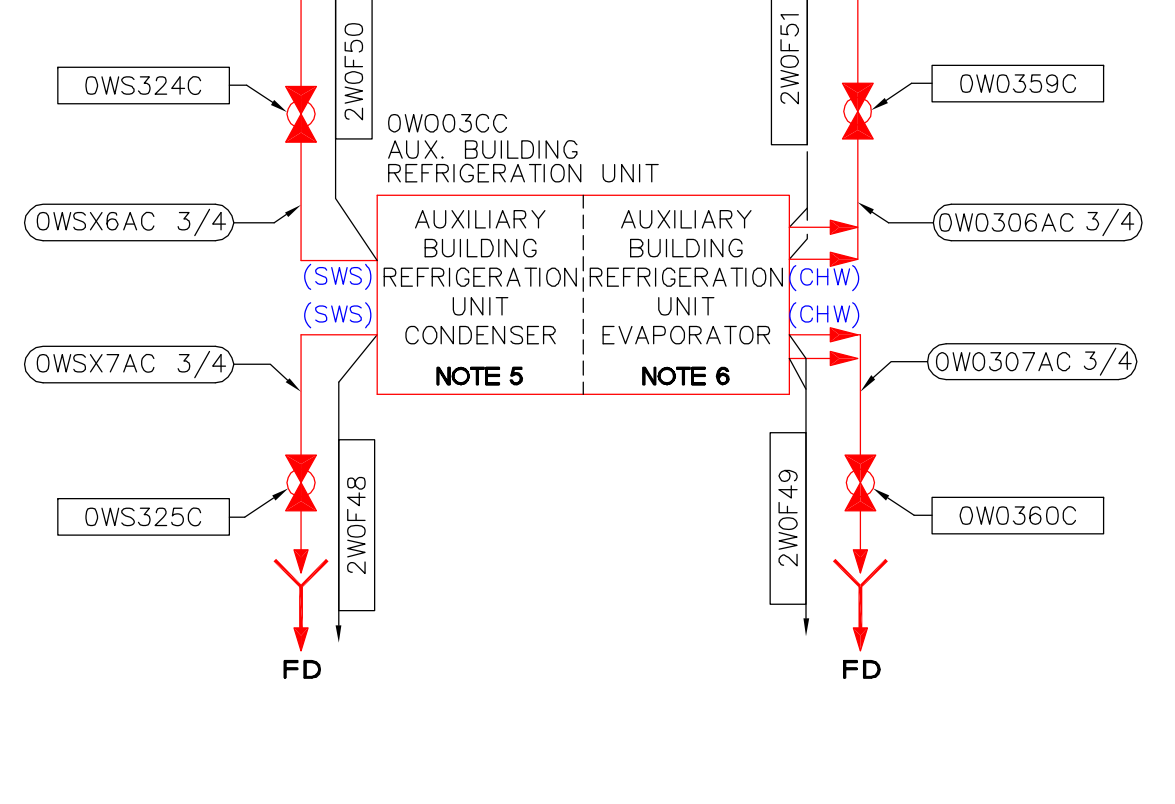
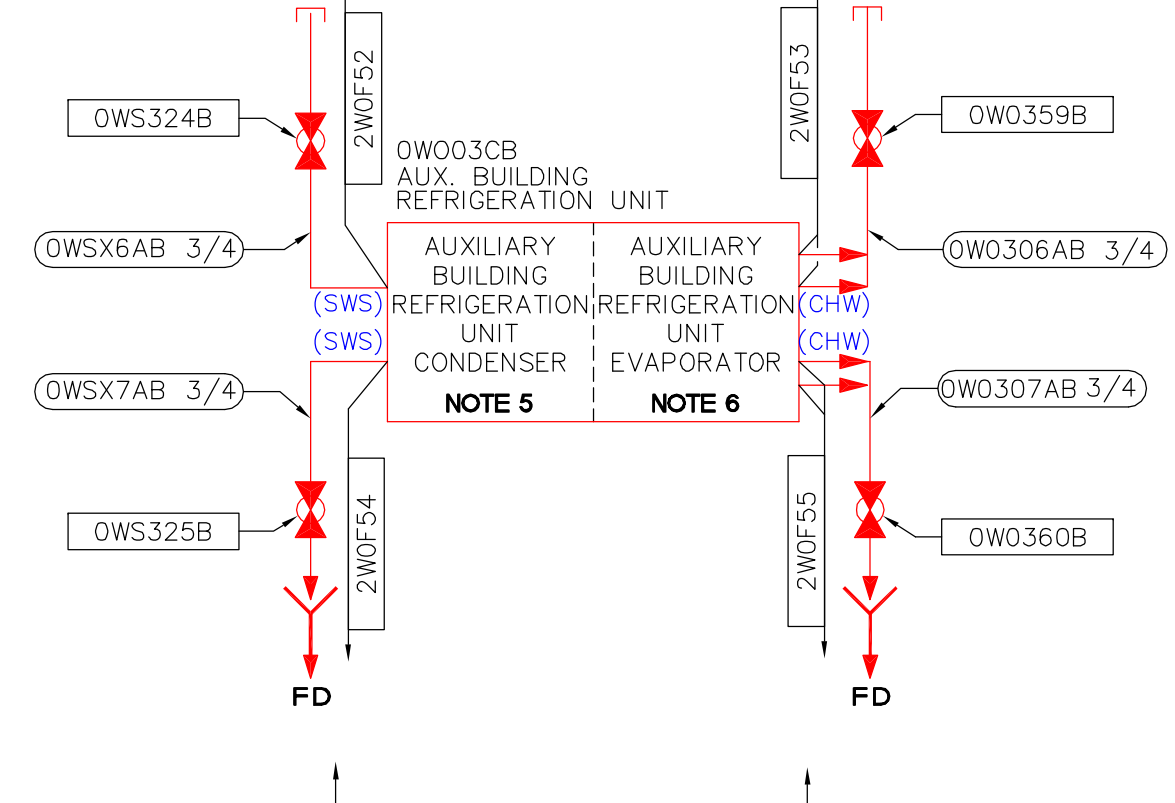
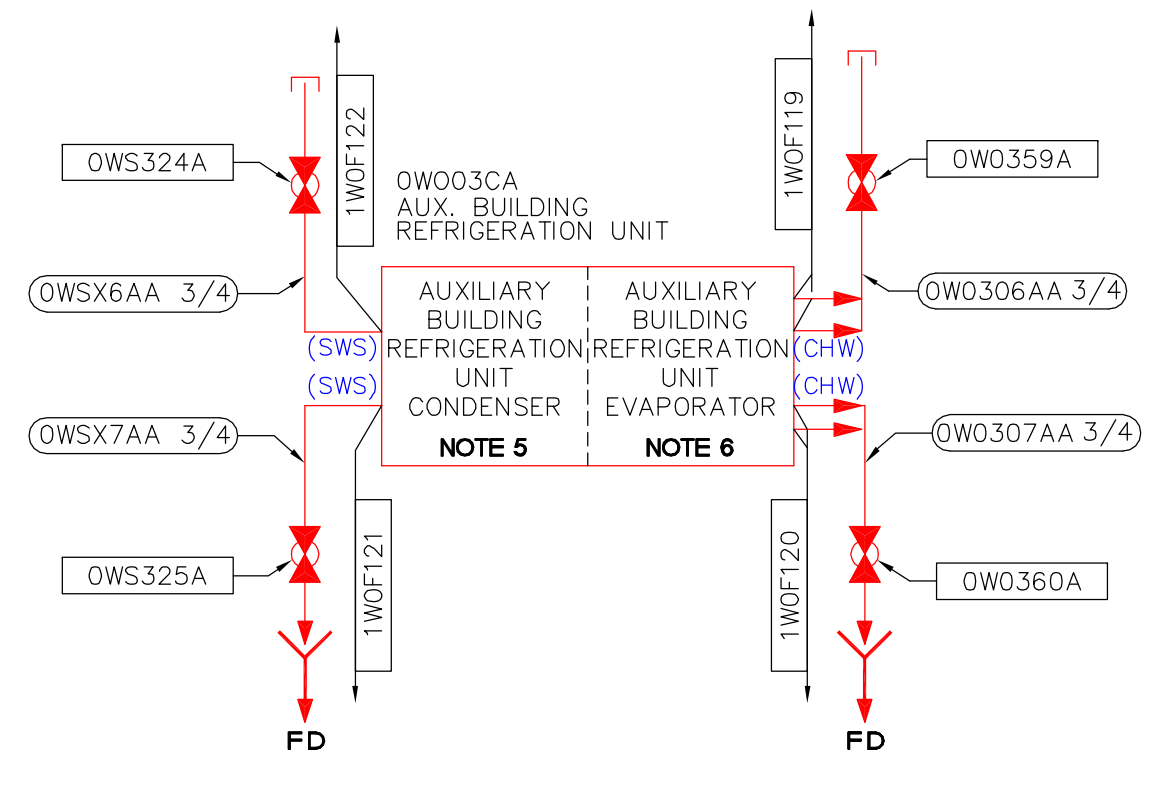
B

A

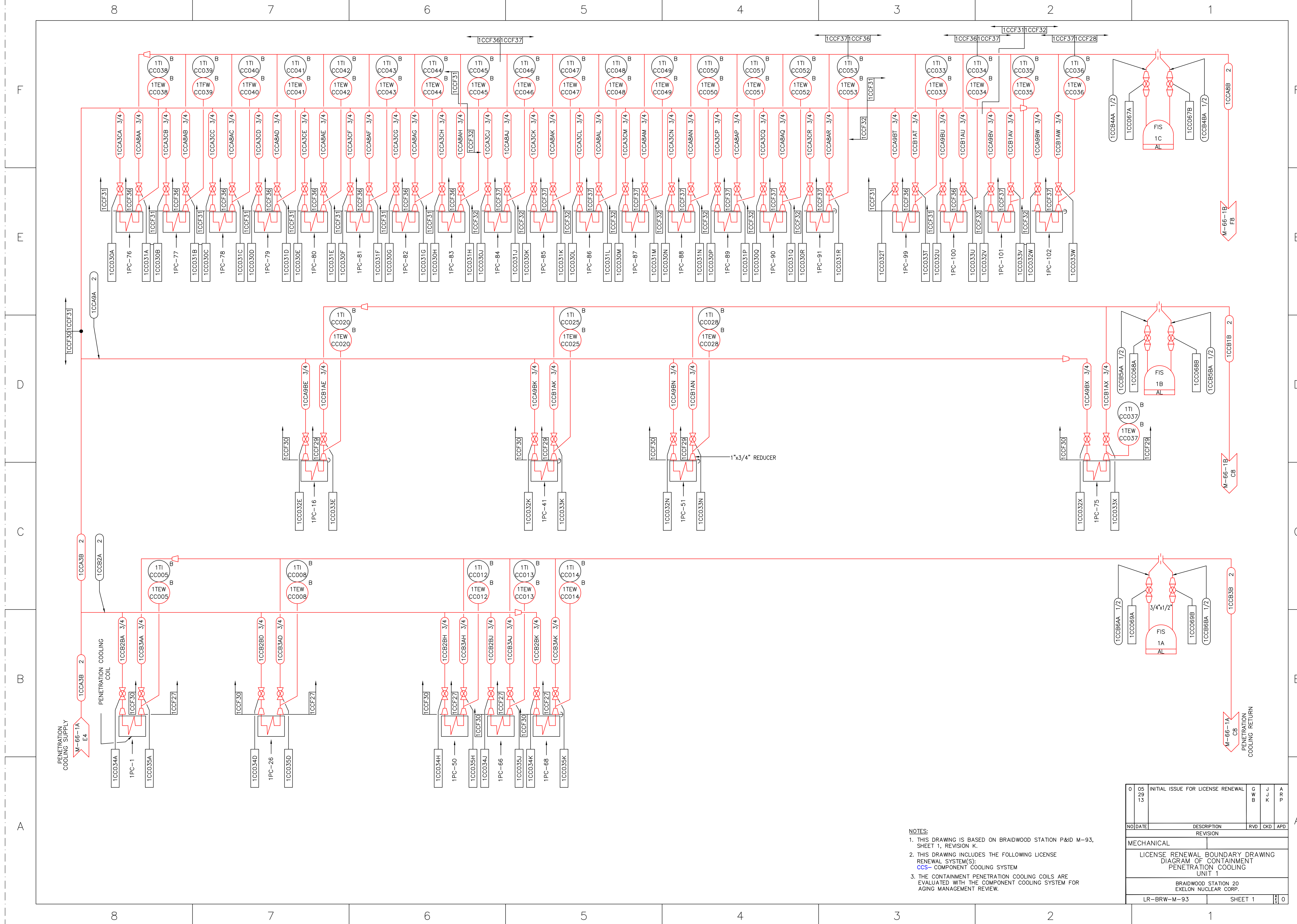
- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-82, SHEET 15, REVISION T.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CHW- CHILLED WATER SYSTEM  
 RWS- RADWASTE SYSTEM  
 SWS- SERVICE WATER SYSTEM
  - THE CONTROL ROOM REFRIGERATION UNIT CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE CONTROL ROOM REFRIGERATION UNIT EVAPORATOR SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE AUXILIARY BUILDING REFRIGERATION UNIT CONDENSER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - THE AUXILIARY BUILDING REFRIGERATION UNIT EVAPORATOR TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.



CHILLED WATER PUMPS  
 AUX. BLDG. CHILLED WATER SYSTEM  
 HVAC CHILLER ROOM



0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
29	13		K	W	R
				B	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF AUXILIARY BUILDING					
EQUIPMENT DRAINS					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-82		SHEET 15	0		



- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-93, SHEET 1, REVISION K.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CCS- COMPONENT COOLING SYSTEM
  - THE CONTAINMENT PENETRATION COOLING COILS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	G W B	J K L	A P R
NO	DATE	DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CONTAINMENT PENETRATION COOLING UNIT 1					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-93					SHEET 1
					0

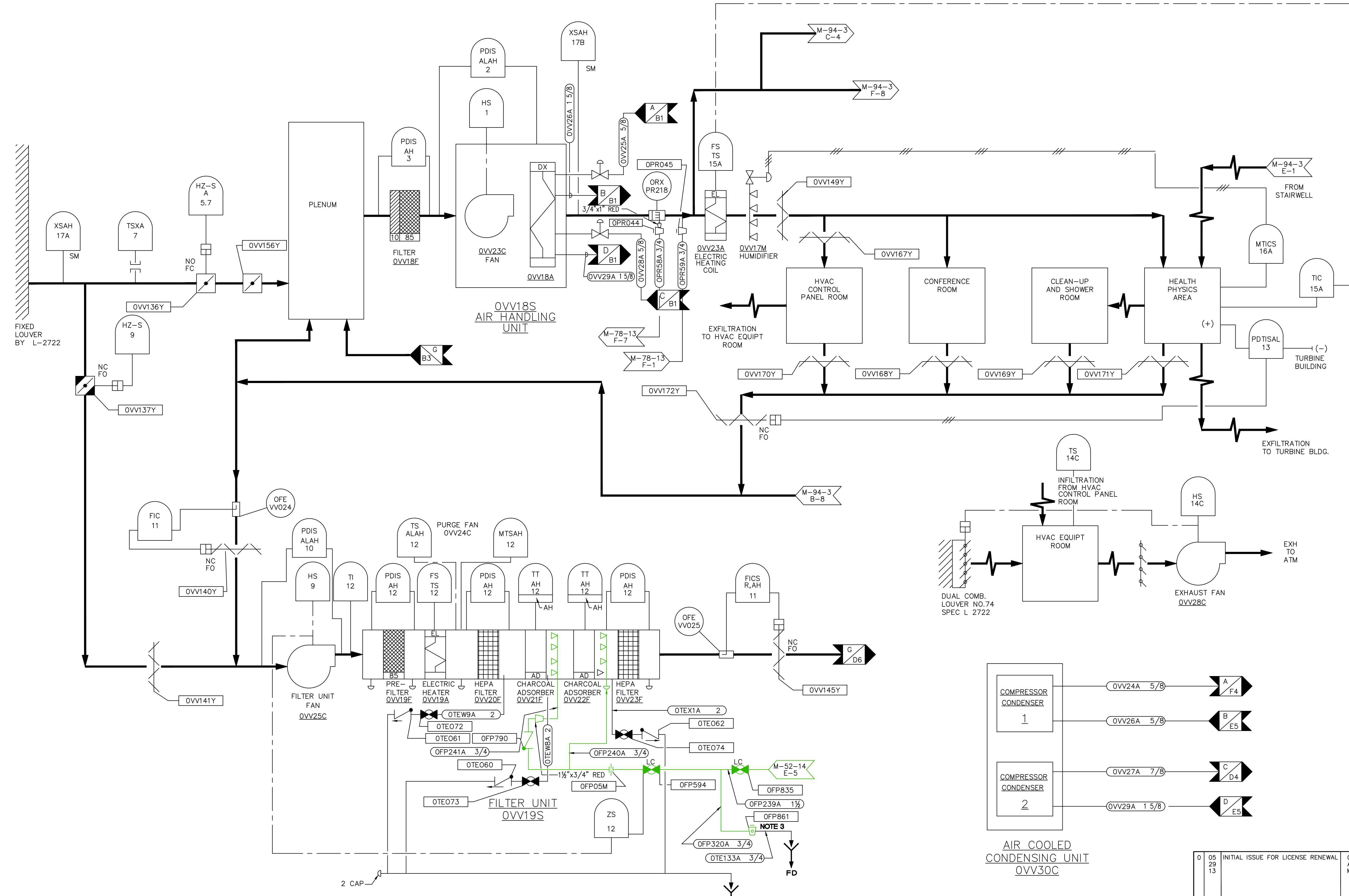




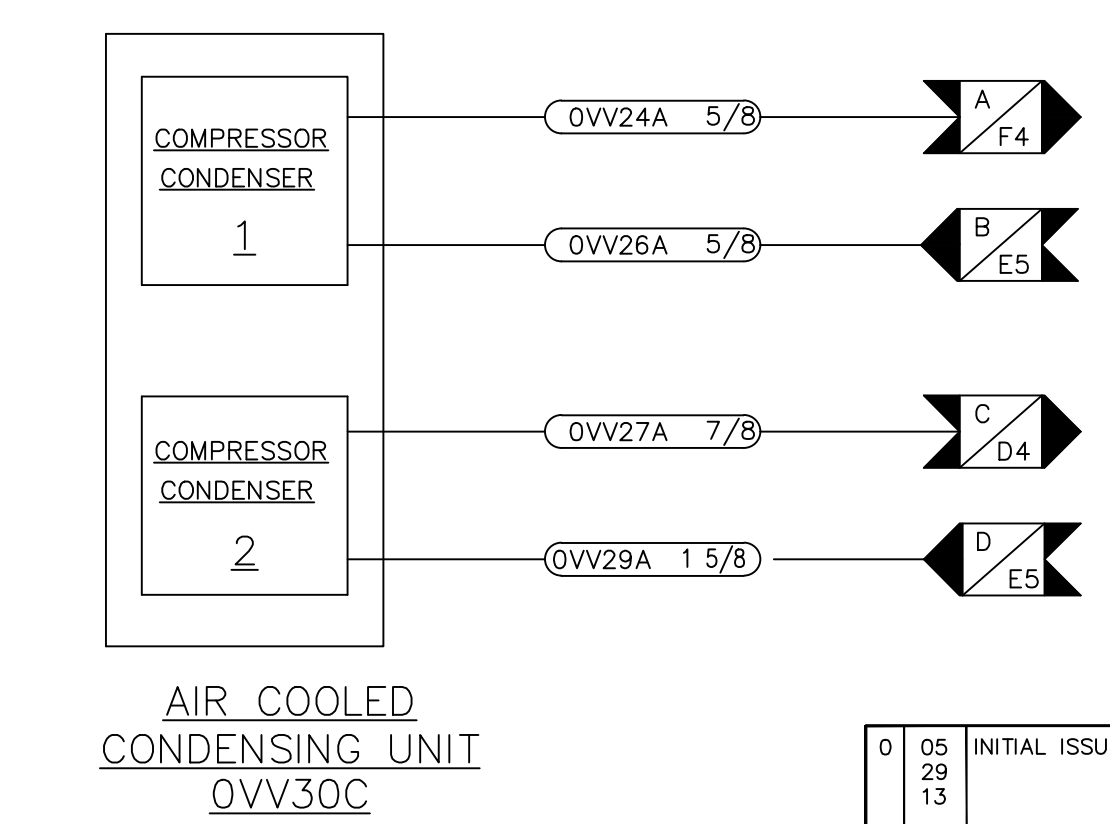




OUTSIDE AIR INTAKE



- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-94, SHEET 2; REVISION W.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS- FIRE PROTECTION SYSTEM
  3. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT IS NOT LOCATED IN THE VICINITY OF SAFETY-RELATED COMPONENTS, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.



0	05	INITIAL ISSUE FOR LICENSE RENEWAL	C	A	P	A
29	13		M	F	R	P
NO DATE		DESCRIPTION	RVD	CKD	APD	
REVISION						
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF TECHNICAL SUPPORT CENTER						
VENTILATION SYSTEM						
UNITS 1 & 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-94			SHEET 2		0	

8

7

6

5

4

3

2

1

F

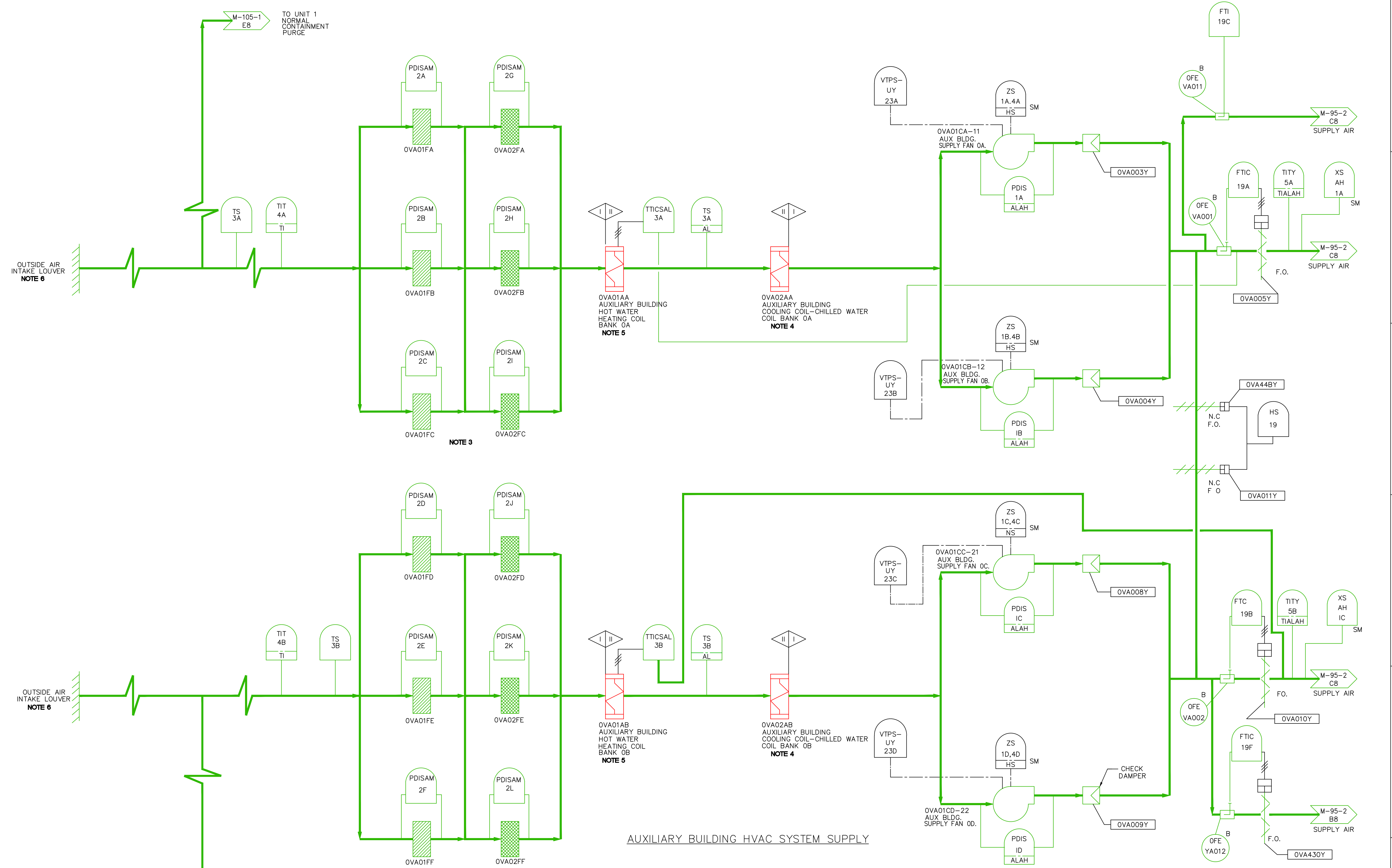
E

D

C

B

A



**AUXILIARY BUILDING HVAC SYSTEM SUPPLY**

- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 1, REVISION R.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM
  3. FILTER MEDIA IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE AUXILIARY BUILDING COOLING COIL-CHILLED WATER COIL BANK CONSISTS OF COOLING COILS LOCATED IN HVAC UNIT HOUSING. THE AUXILIARY BUILDING COOLING COIL-CHILLED WATER BANK TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
  5. THE AUXILIARY BUILDING HOT WATER HEATING COIL BANK CONSISTS OF HOT WATER HEATING COILS LOCATED IN HVAC UNIT HOUSING. THE AUXILIARY BUILDING HOT WATER HEATER COIL BANK TUBE SIDE COMPONENTS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
  6. LOUVERS ARE EVALUATED WITH THE STRUCTURAL COMMODITY GROUP FOR AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		J	R	R
			Y	W	P
NO/DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF AUXILIARY BUILDING HVAC (VA) SYSTEM UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-95				SHEET 1	

8

7

6

5

4

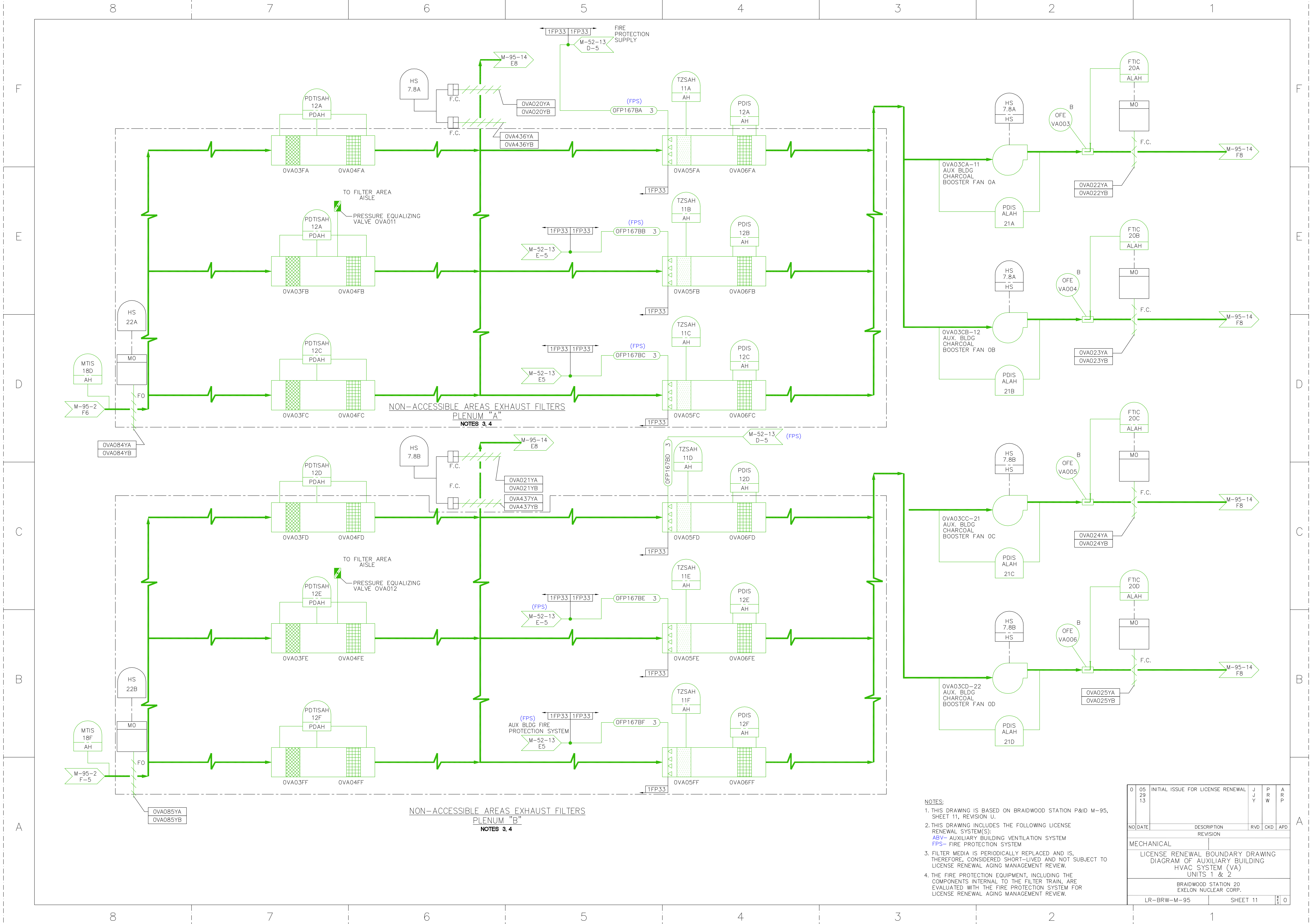
3

2

1







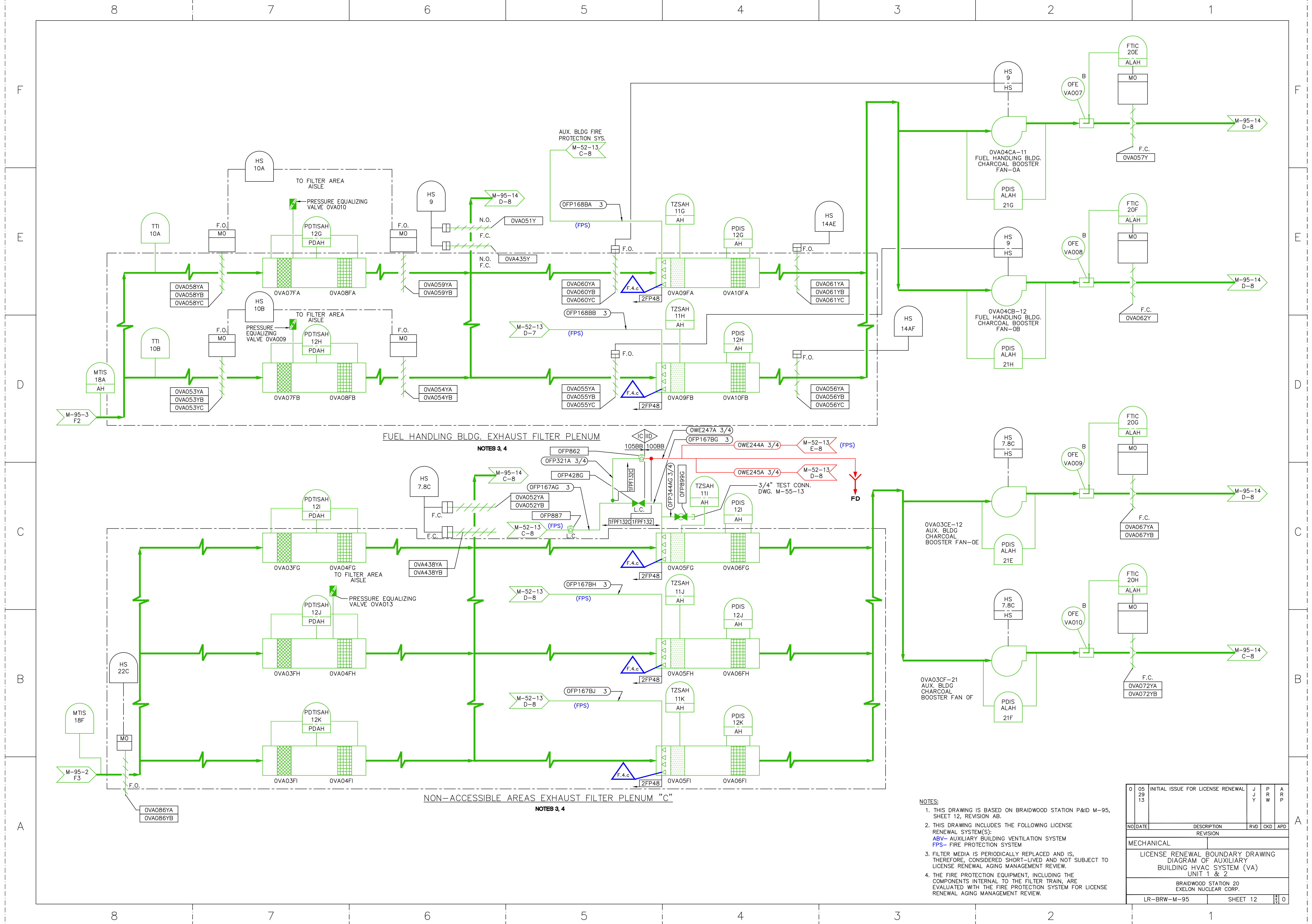
NON-ACCESSIBLE AREAS EXHAUST FILTERS  
PLENUM "A"  
NOTES 3, 4

NON-ACCESSIBLE AREAS EXHAUST FILTERS  
PLENUM "B"  
NOTES 3, 4

- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 11, REVISION U.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 FPS- FIRE PROTECTION SYSTEM
  - FILTER MEDIA IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE FIRE PROTECTION EQUIPMENT, INCLUDING THE COMPONENTS INTERNAL TO THE FILTER TRAIN, ARE EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF AUXILIARY BUILDING HVAC SYSTEM (VA) UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-95	SHEET 11	0		



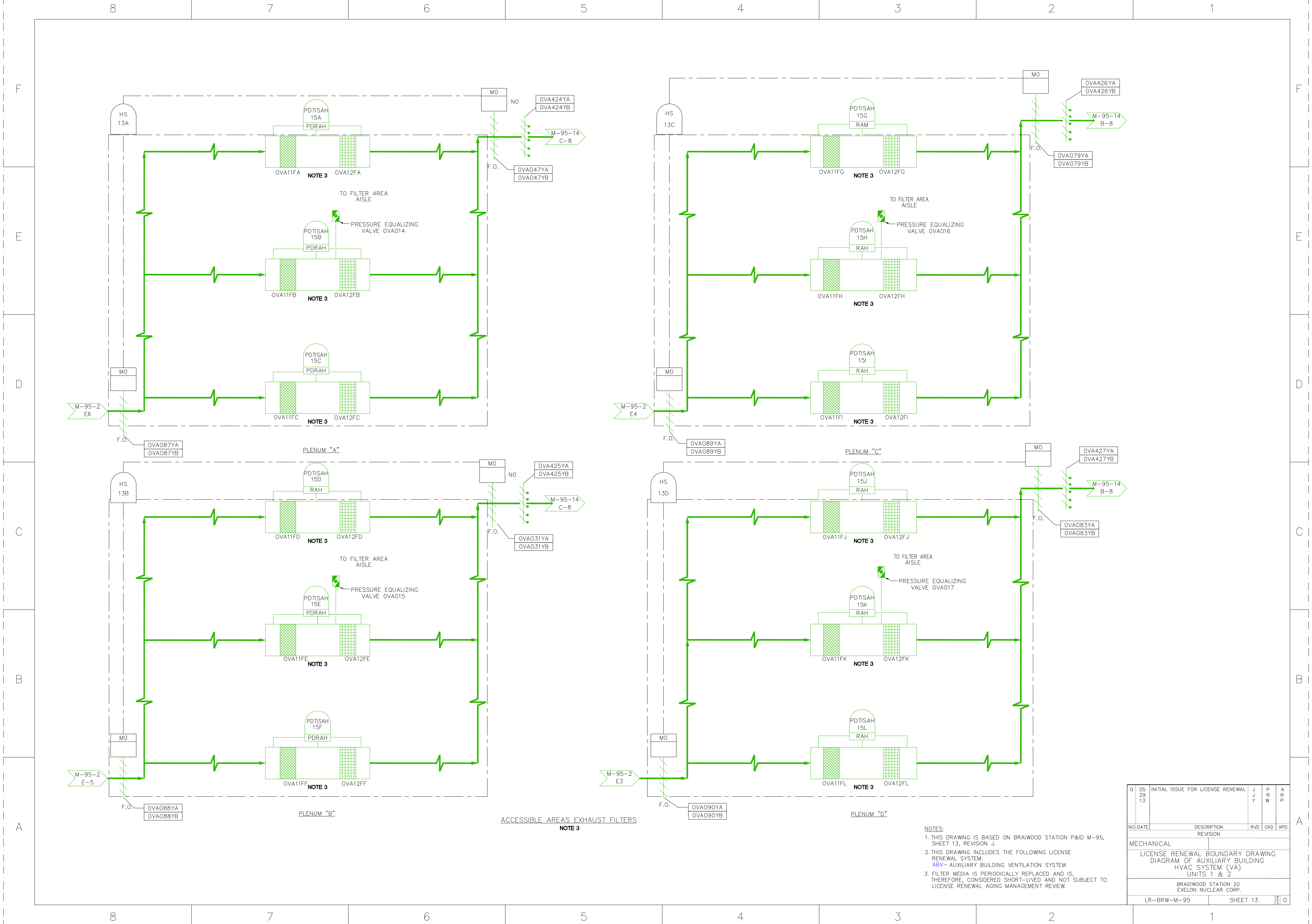


FUEL HANDLING BLDG. EXHAUST FILTER PLENUM  
 NOTES 3, 4

NON-ACCESSIBLE AREAS EXHAUST FILTER PLENUM "C"  
 NOTES 3, 4

- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 12, REVISION AB.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 FPS- FIRE PROTECTION SYSTEM
  3. FILTER MEDIA IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE FIRE PROTECTION EQUIPMENT, INCLUDING THE COMPONENTS INTERNAL TO THE FILTER TRAIN, ARE EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		J	R	R
13			Y	W	P
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF AUXILIARY					
BUILDING HVAC SYSTEM (VA)					
UNIT 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-95		SHEET 12		0	

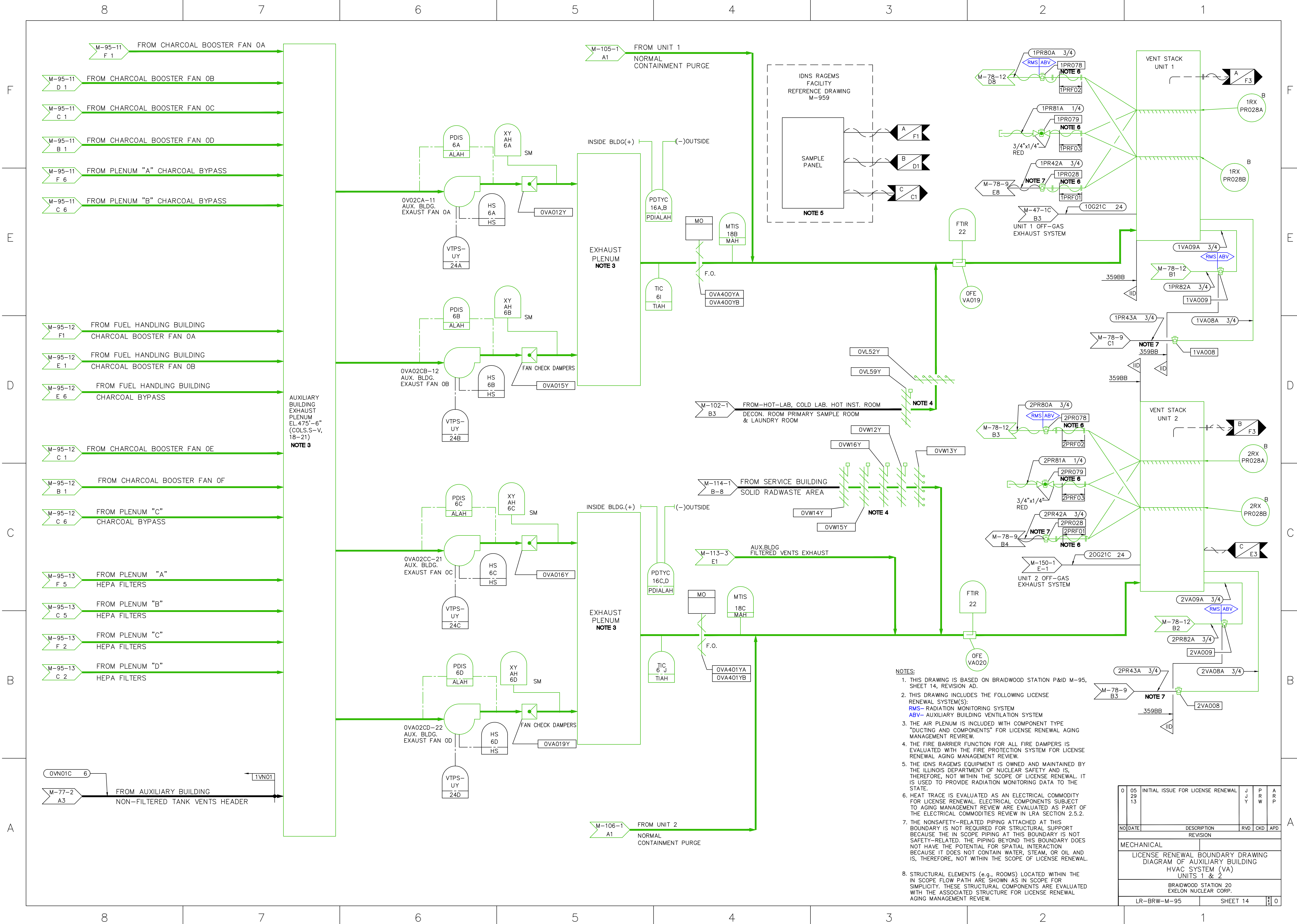


ACCESSIBLE AREAS EXHAUST FILTERS  
NOTE 3

- NOTES:
- THIS DRAWING IS BASED ON BRAIWOOD STATION P&ID M-95, SHEET 13, REVISION J.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM:  
ABV- AUXILIARY BUILDING VENTILATION SYSTEM
  - FILTER MEDIA IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.

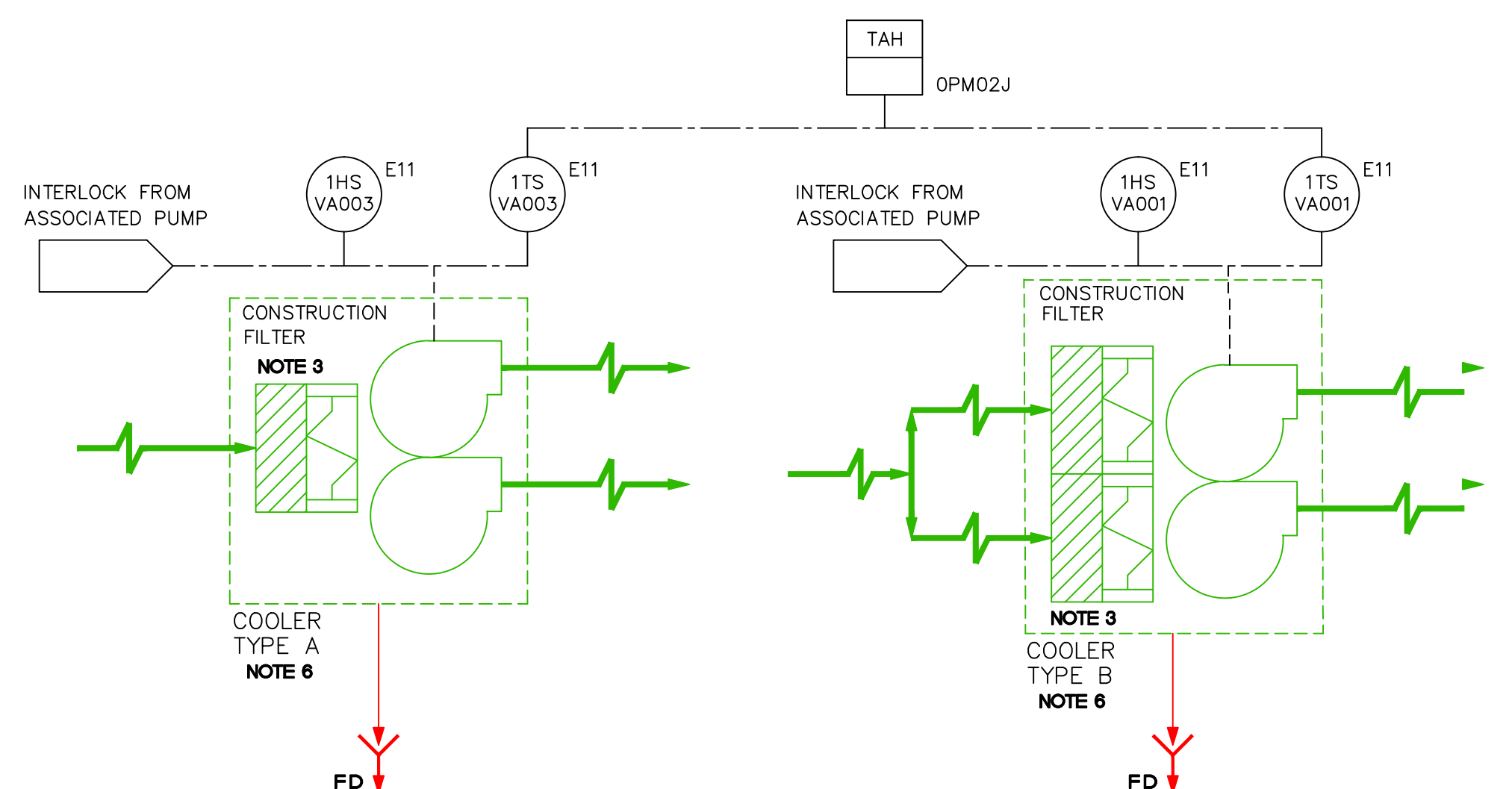
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL SHEET 13, REVISION J	J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF AUXILIARY BUILDING HVAC SYSTEM (VA) UNITS 1 & 2				
BRAIWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-95	SHEET 13	0		





- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 14, REVISION AD.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
**RMS**- RADIATION MONITORING SYSTEM  
**ABV**- AUXILIARY BUILDING VENTILATION SYSTEM
  - THE AIR PLENUM IS INCLUDED WITH COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE IDNS RAGEMS EQUIPMENT IS OWNED AND MAINTAINED BY THE ILLINOIS DEPARTMENT OF NUCLEAR SAFETY AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL. IT IS USED TO PROVIDE RADIATION MONITORING DATA TO THE STATE.
  - HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  - THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  - STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	R	A
					Y	W	W	R
NO DATE				DESCRIPTION	RVD	CKD	APD	
				REVISION				
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF AUXILIARY BUILDING								
HVAC SYSTEM (VA)								
UNITS 1 & 2								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-95				SHEET 14				0



NOTE: SCHEME AT LEFT APPLIES TO ALL CUBICLE COOLERS SHOWN IN TABLE.

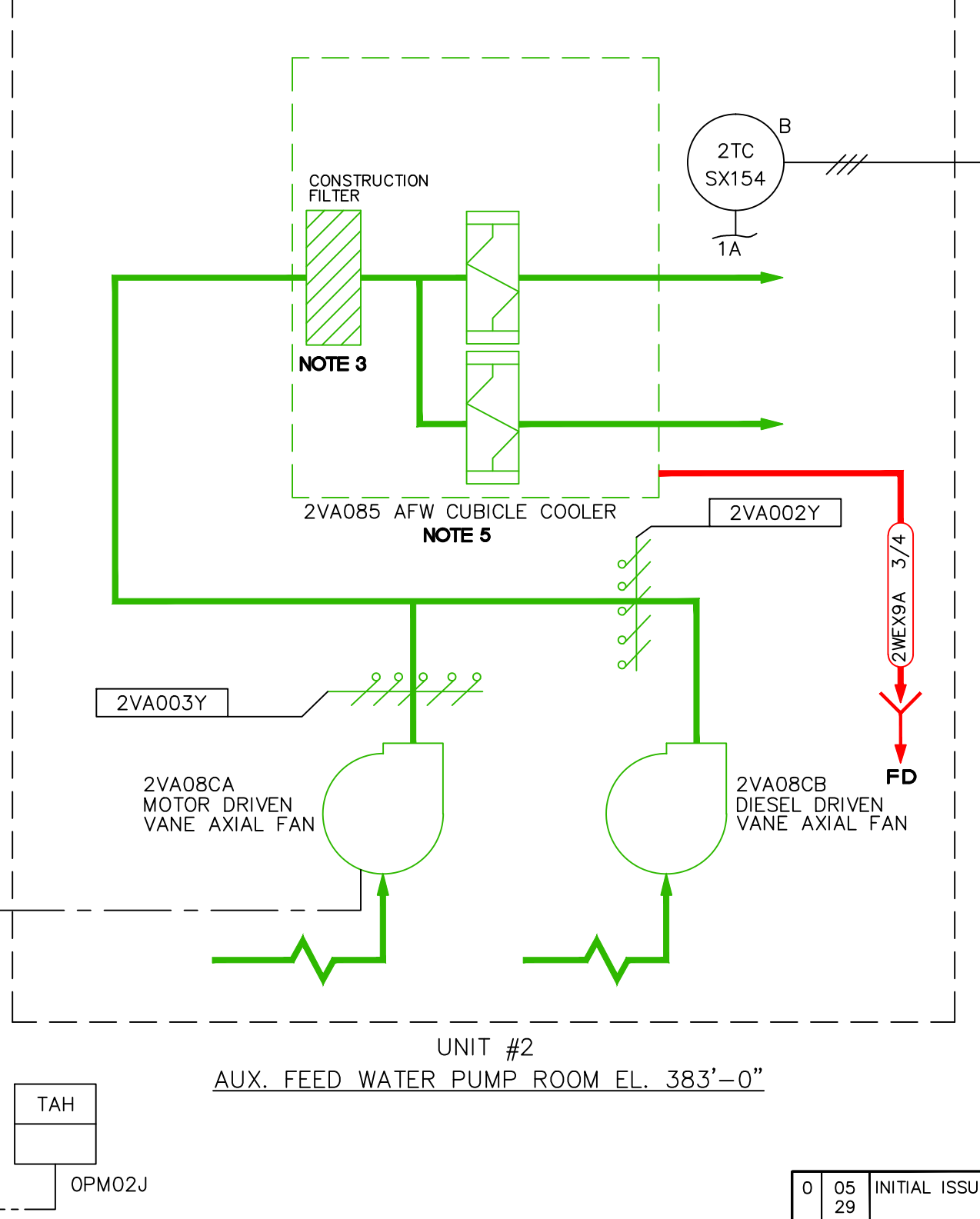
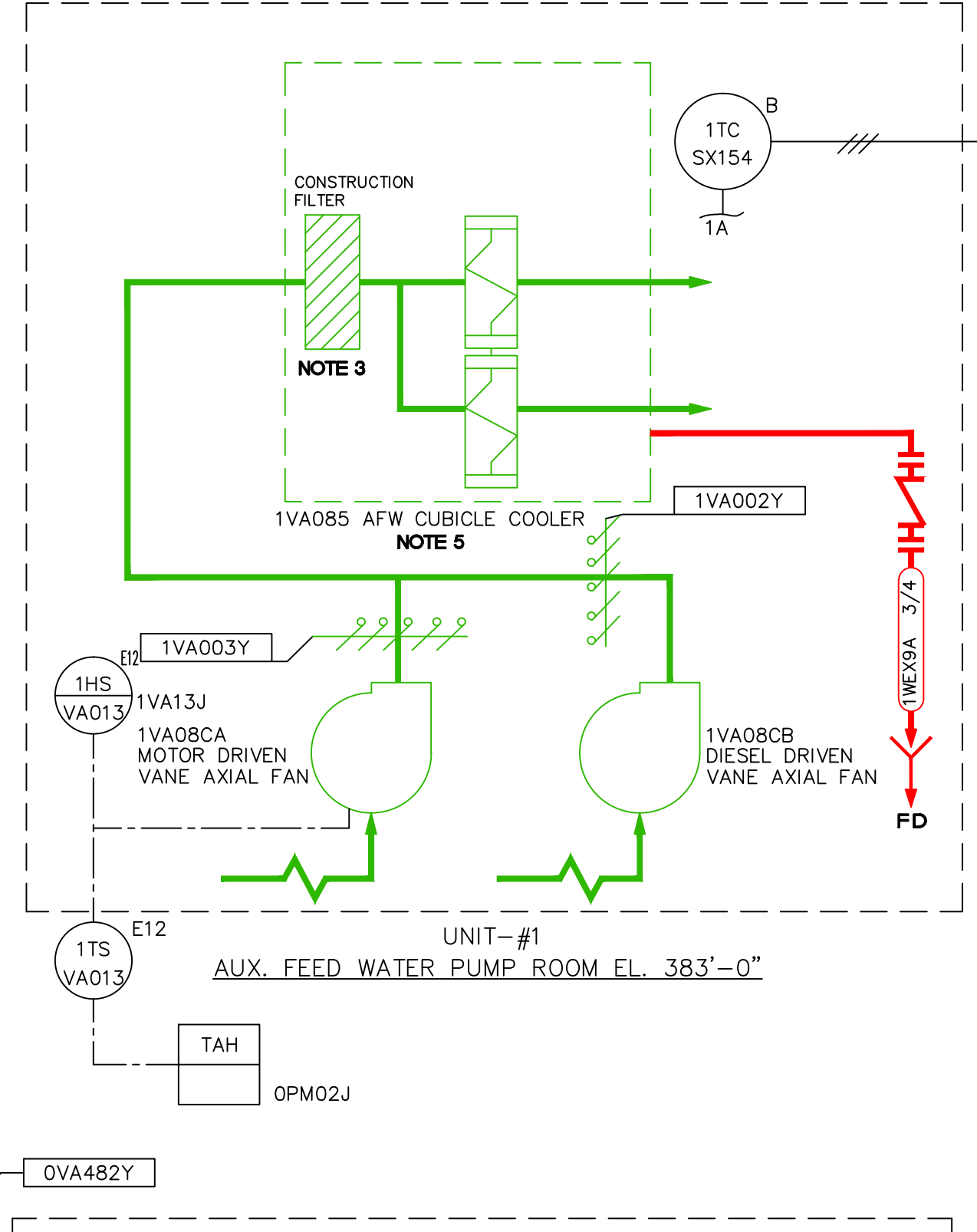
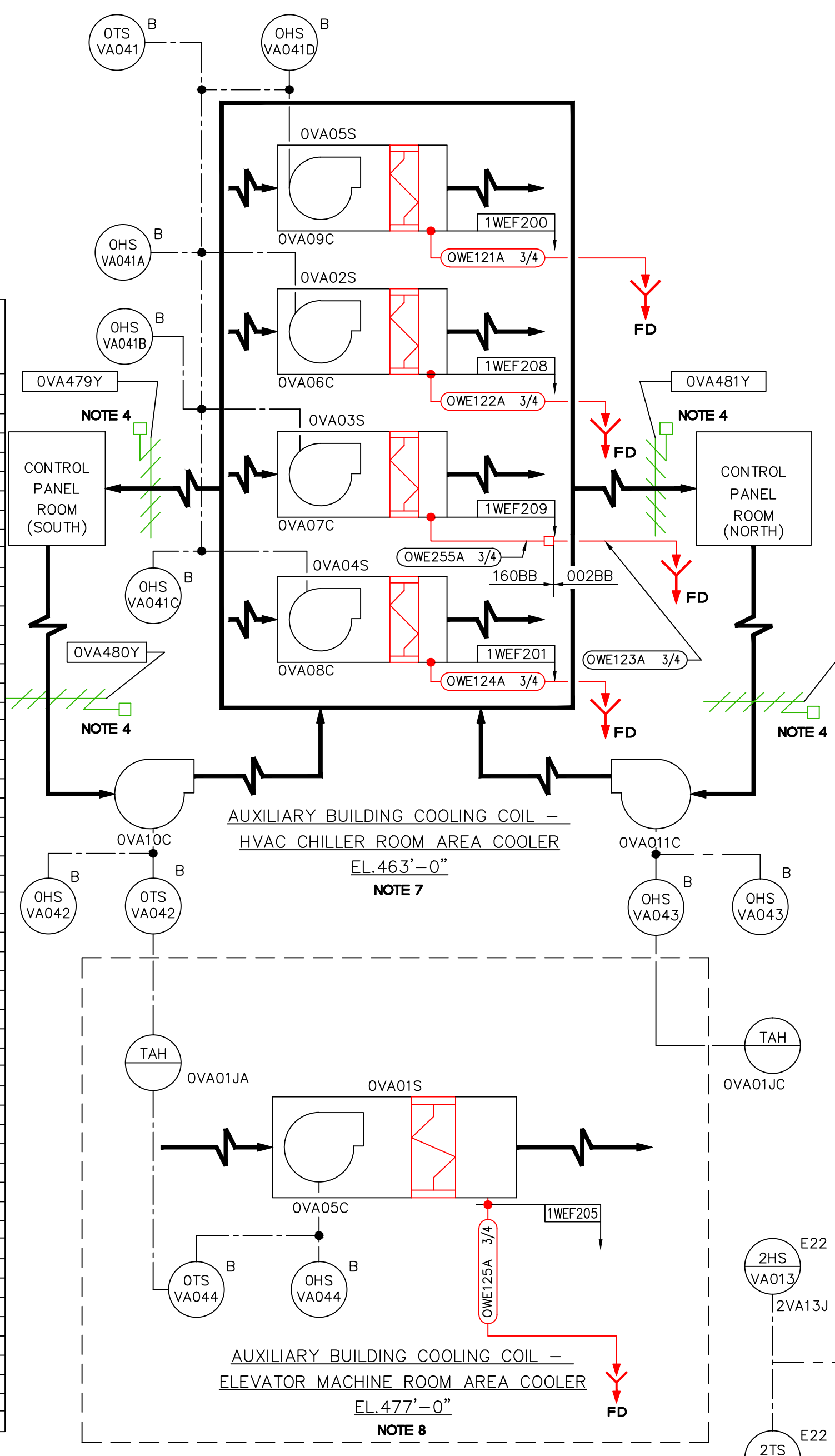
EQUIPMENT										
CUBICLE COOLER FOR	COOLER NUMBER	COOLER TYPE	NUMBER OF COILS	LOCAL PANEL	TOTAL COIL AIR FLOW (CFM)	FAN EQUIPMENT NUMBERS	FAN CAPACITY (CFM EA.UNIT)	CONTROL SWITCH INSTRUMENT NUMBER	ROOM TEMP. SWITCH INSTRUMENT NUMBER	SEP. DIV.
ESSENTIAL SERVICE WATER PUMP ROOMS	1VA01SA	B	2	1VA01J	23,904	1VA01CA-CD	25,575	1HS-VA001	1TS-VA001	E11
	1VA01SB	B	2	1VA02J		1VA01CE-CH		1HS-VA002	1TS-VA002	E12
	2VA01SA	B	2	2VA01J		2VA01CA-CD		2HS-VA001	2TS-VA001	E21
	2VA01SB	B	2	2VA02J		2VA01CE-CH		2HS-VA002	2TS-VA002	E22
RESIDUAL HEAT REMOVAL PUMP ROOMS	1VA02SA	A	1	1VA03J	9,344	1VA02CA&B	10,154	1HS-VA003	1TS-VA003	E11
	1VA02SB	A	1	1VA04J		1VA02CC&D		1HS-VA004	1TS-VA004	E12
	2VA02SA	A	1	2VA03J		2VA02CA&B		2HS-VA003	2TS-VA003	E21
	2VA02SB	A	1	2VA04J		2VA02CC&D		2HS-VA004	2TS-VA004	E22
CONTAINMENT SPRAY PUMP ROOMS	1VA03SA	B	2	1VA05J	17,074	1VA03CA-CD	18,311	1HS-VA005	1TS-VA005	E11
	1VA03SB	B	2	1VA06J		1VA03CE-CH		1HS-VA006	1TS-VA006	E12
	2VA03SA	B	2	2VA05J		2VA03CA-CD		2HS-VA005	2TS-VA005	E21
	2VA03SB	B	2	2VA06J		2VA03CE-CH		2HS-VA006	2TS-VA006	E22
SAFETY INJECTION PUMP ROOMS	1VA04SA	A	1	1VA07J	9,344	1VA04CA & B	10,154	1HS-VA007	1TS-VA007	E11
	1VA04SB	B	2	1VA08J	9,100	1VA04CC & D	9,721	1HS-VA008	1TS-VA008	E12
	2VA04SA	A	1	2VA07J	9,344	2VA04CA & B	10,154	2HS-VA007	2TS-VA007	E21
	2VA04SB	B	2	2VA08J	9,100	2VA04CC & D	9,721	2HS-VA008	2TS-VA008	E22
POSITIVE DISPLACEMENT CHARGING PUMP ROOMS	1VA05S	A	1	1VA09J	5,805	1VA05CA & B	6,227	1HS-VA009	1TS-VA009	B
	2VA05S	A	1	2VA09J		2VA05CA & B		2HS-VA009	2TS-VA009	B
CENTRIFUGAL CHARGING PUMP ROOMS	1VA06SA	B	2	1VA10J	12,058	1VA06CA & B	13,000	1HS-VA010	1TS-VA010	E11
	1VA06SB	A	1	1VA11J	12,258	1VA06CC & D	13,117	1HS-VA011	1TS-VA011	E12
	2VA06SA	B	2	2VA10J	12,058	2VA06CA & B	13,000	2HS-VA010	2TS-VA010	E21
	2VA06SB	A	1	2VA11J	12,258	2VA06CC & D	13,117	2HS-VA011	2TS-VA011	E22
SPENT FUEL PIT PUMP ROOMS	1VA07S	B	2	1VA12J	10,809	1VA07CA & B	10,100	1HS-VA012	1TS-VA012	B
	2VA07S	B	2	2VA12J		2VA07CA & B		2HS-VA012	2TS-VA012	B

NOTE: TEMP. SW. (2)1TS-VA001 THRU VA013 ARE ALL ANNUNCIATED ON THE SAME ANNUNCIATOR WINDOW ON MCB OPM02J

NOTE 6

NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 15, REVISION U.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
ABV- AUXILIARY BUILDING VENTILATION SYSTEM
- THE FILTER ELEMENT WAS REMOVED FOLLOWING CONSTRUCTION.
- THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- THE AFW CUBICLE COOLER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW.
- THE TYPE A AND TYPE B COOLER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW.
- THE AUXILIARY BUILDING COOLING COIL-HVAC CHILLER ROOM AREA COOLER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
- THE AUXILIARY BUILDING COOLING COIL-ELEVATOR MACHINE ROOM AREA COOLER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.



0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		J	R	R
13			Y	W	P
NO/DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF AUXILIARY BUILDING HVAC SYSTEM (VA) CUBICLE COOLER UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-95		SHEET 15	0		



8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

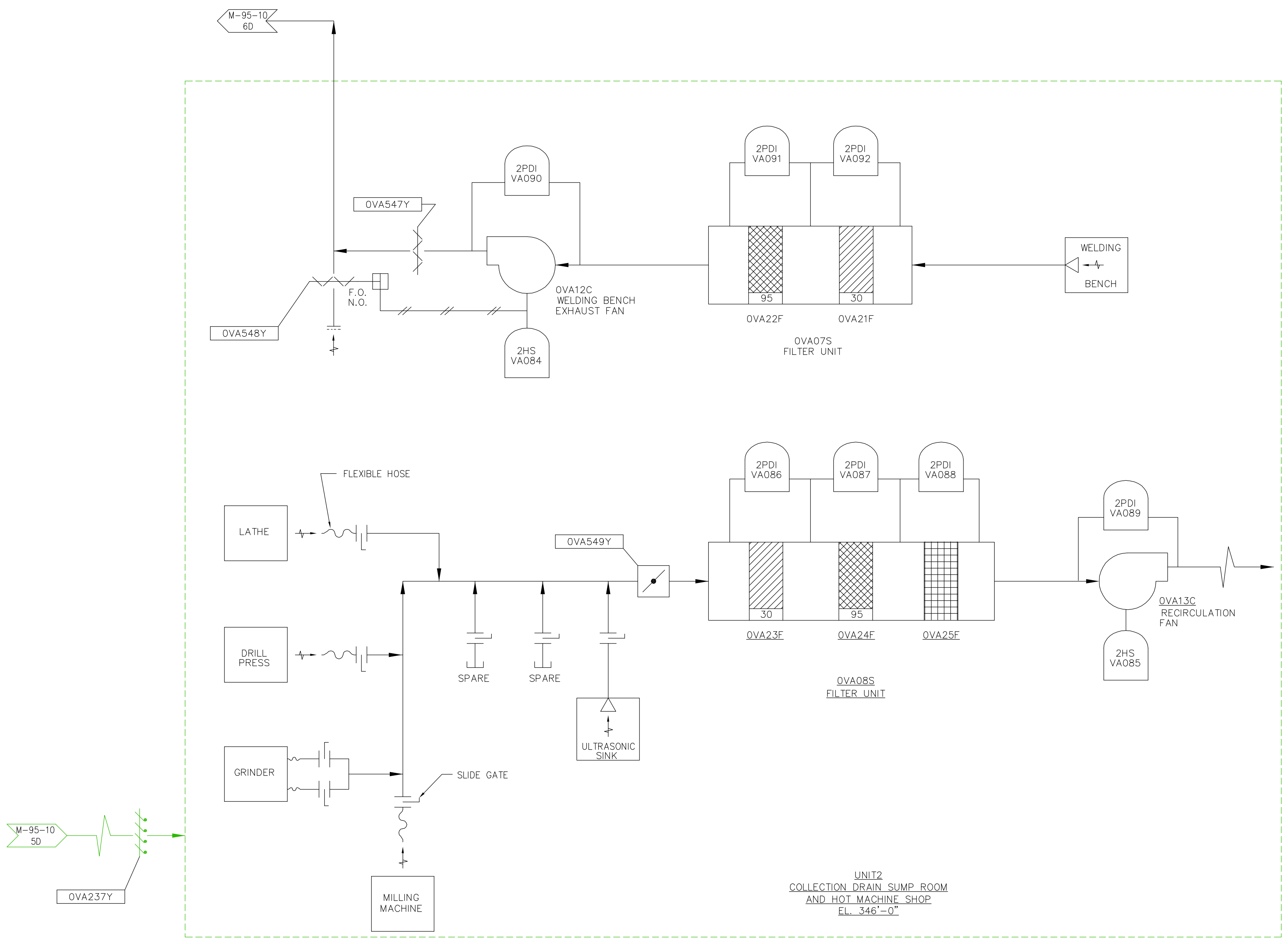
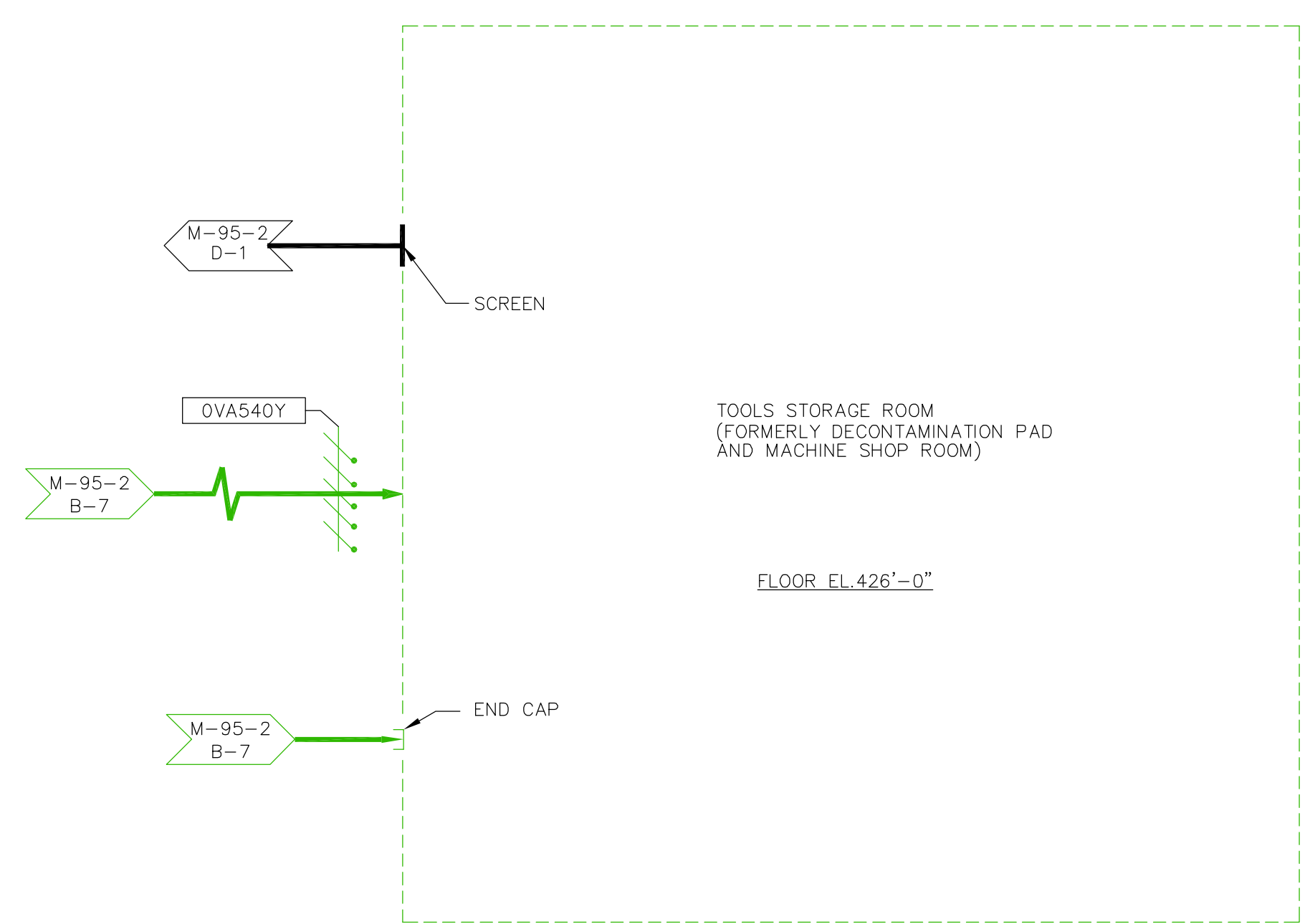
E

D

C

B

A



- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 16, REVISION H.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
ABV- AUXILIARY BUILDING VENTILATION SYSTEM
  3. STRUCTURAL ELEMENTS (E.G. ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		Y	R	R
				W	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF AUX. BLDG. TOOLS STORAGE ROOM AND HOT MACHINE SHOP HVAC SYSTEM - (VA) UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-95		SHEET 16		0	

8

7

6

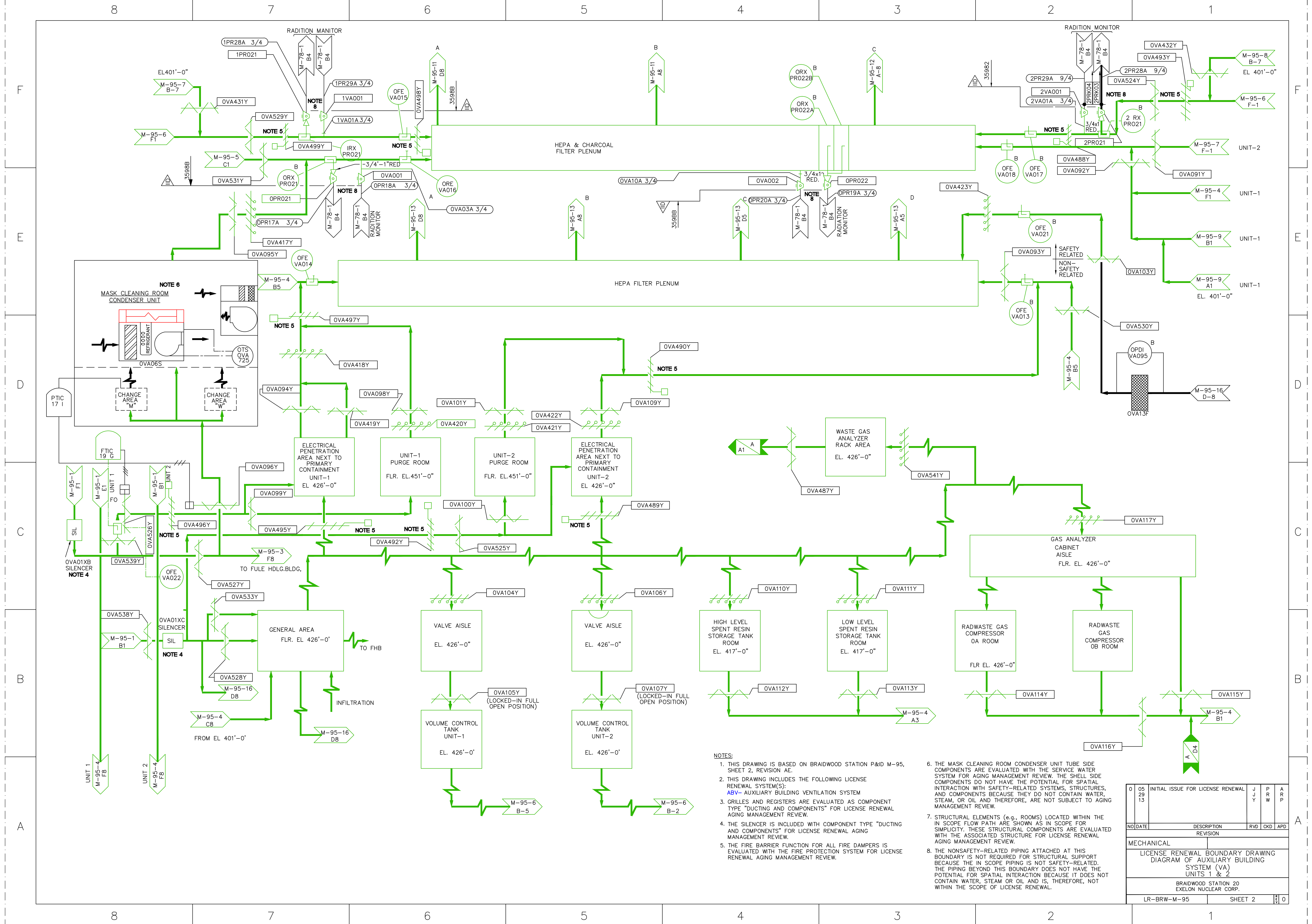
5

4

3

2

1

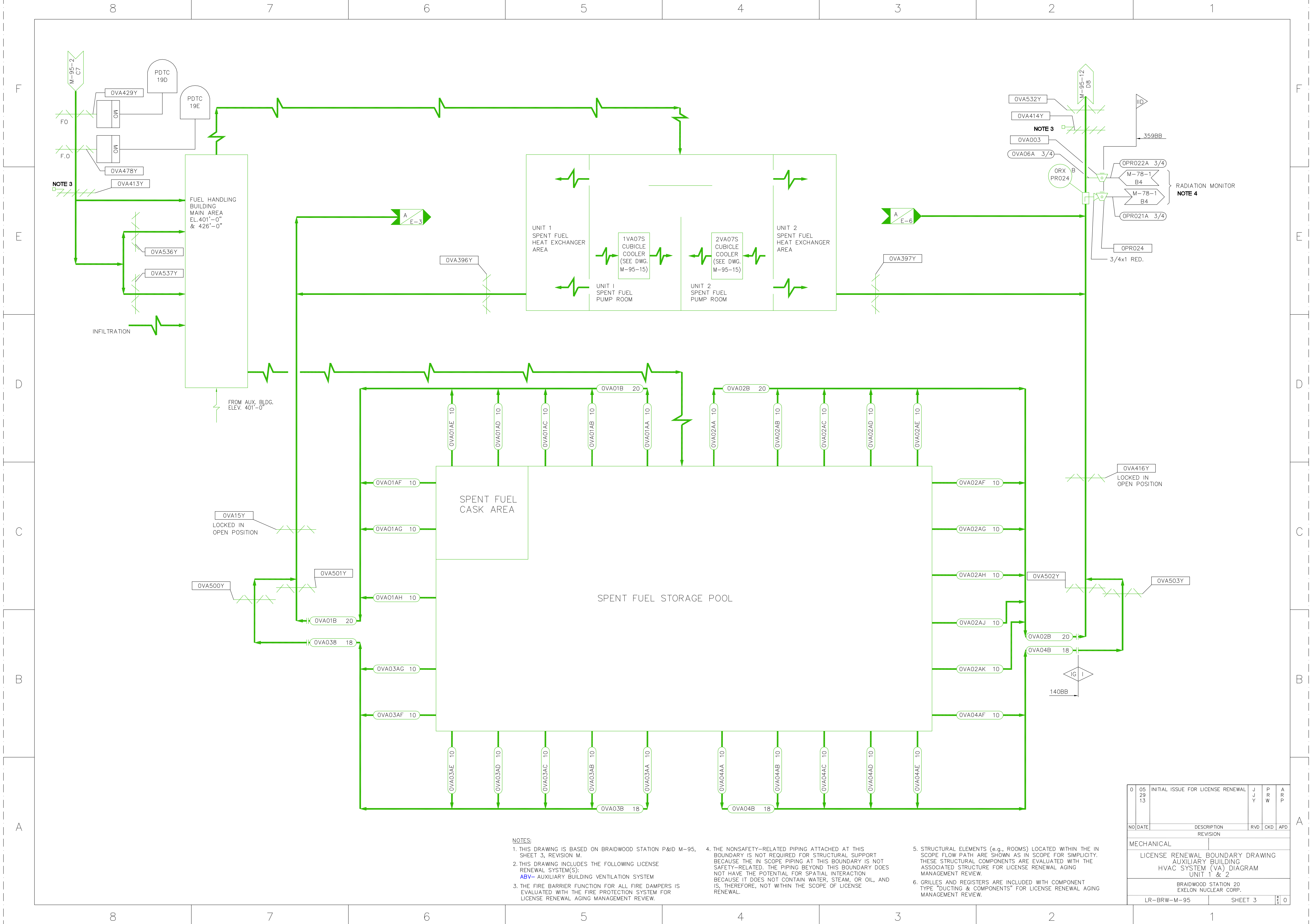


- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 2, REVISION AE.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
ABV- AUXILIARY BUILDING VENTILATION SYSTEM
  - GRILLES AND REGISTERS ARE EVALUATED AS COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE SILENCER IS INCLUDED WITH COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

- THE MASK CLEANING ROOM CONDENSER UNIT TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
- STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
				J	R	R
				Y	W	P
NO DATE			DESCRIPTION	RVD	CKD	APD
REVISION						
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF AUXILIARY BUILDING						
SYSTEM (VA)						
UNITS 1 & 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-95			SHEET 2		0	

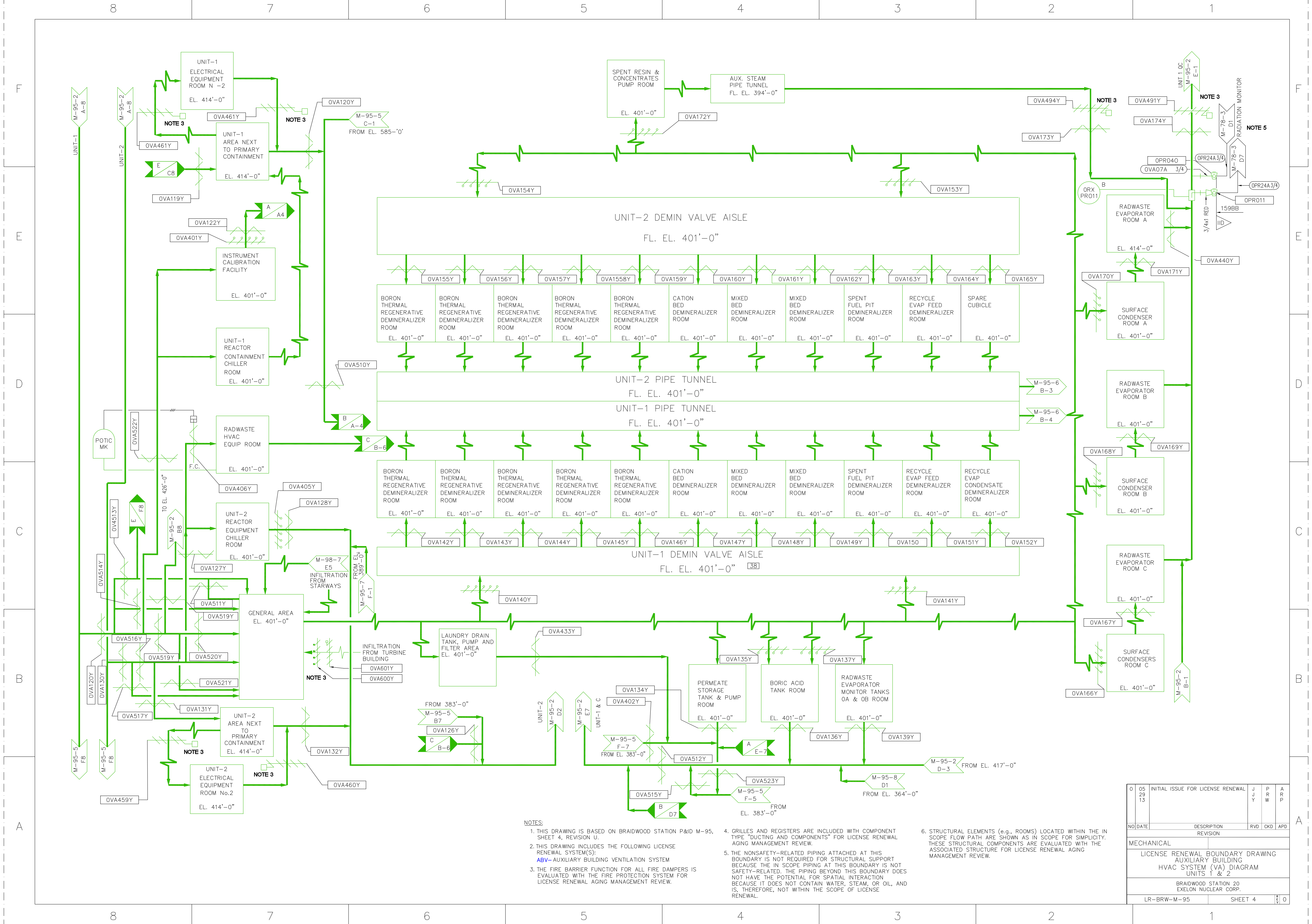




**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 3, REVISION M.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM
3. THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
4. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
5. STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
6. GRILLES AND REGISTERS ARE INCLUDED WITH COMPONENT TYPE "DUCTING & COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING AUXILIARY BUILDING HVAC SYSTEM (VA) DIAGRAM UNIT 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-95 SHEET 3 0				

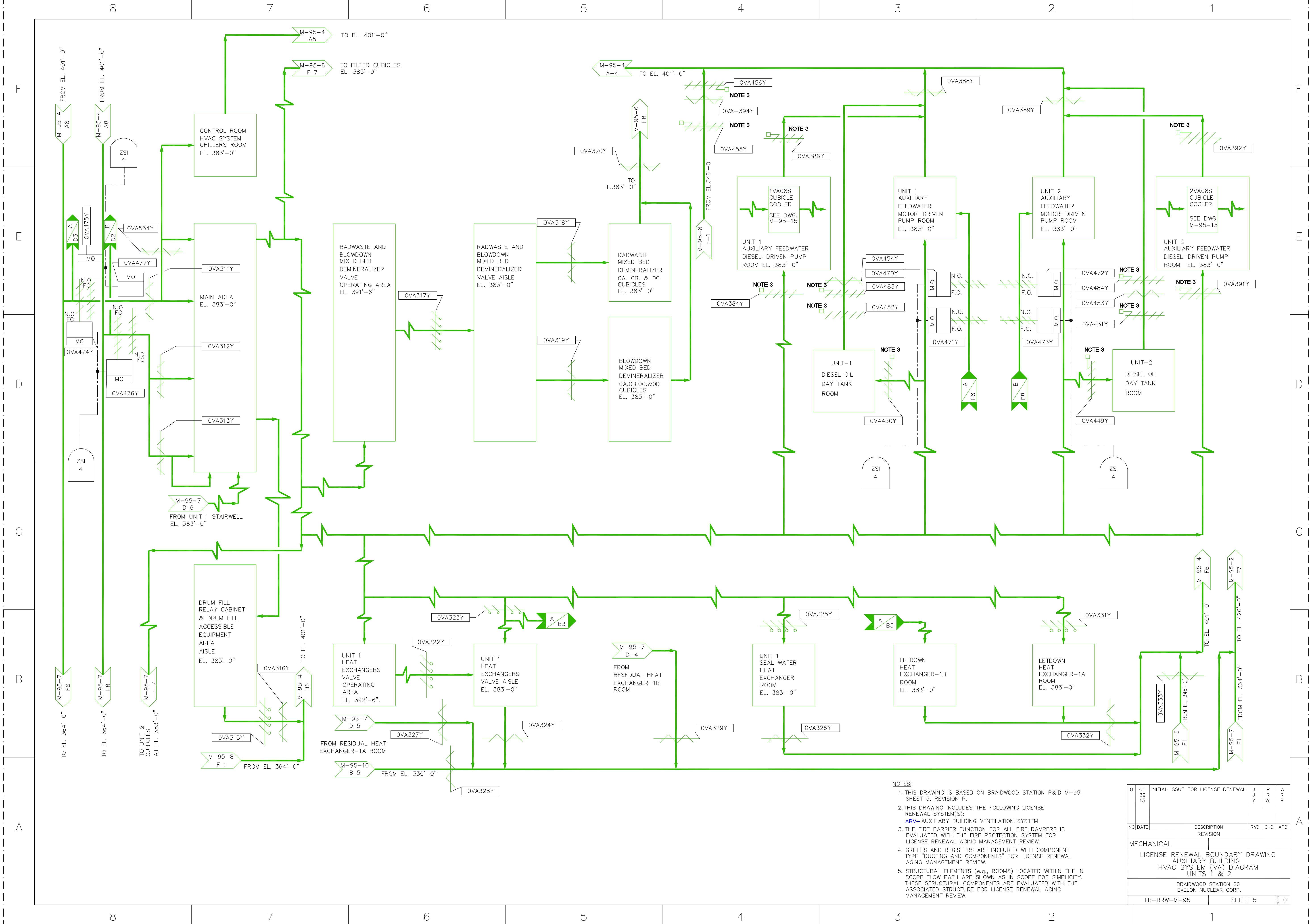


**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 4, REVISION U.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
ABV - AUXILIARY BUILDING VENTILATION SYSTEM
3. THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
4. GRILLES AND REGISTERS ARE INCLUDED WITH COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
5. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
6. STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

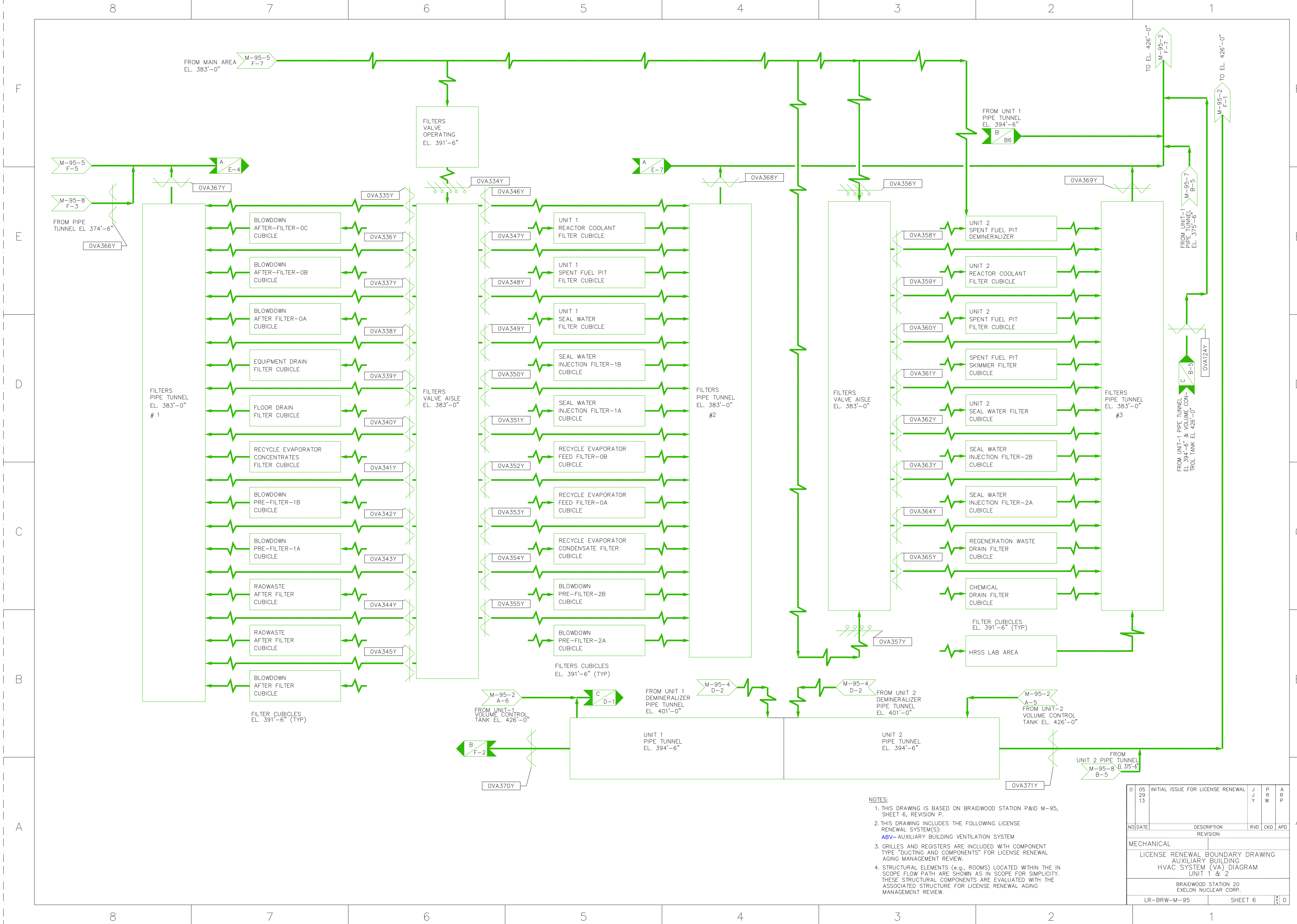
05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A	
29		U	R	R	
13			W	P	
NO. DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
AUXILIARY BUILDING					
HVAC SYSTEM (VA) DIAGRAM					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-95		SHEET 4		0	





- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 5, REVISION P.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
**ABV**-AUXILIARY BUILDING VENTILATION SYSTEM
  3. THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. GRILLES AND REGISTERS ARE INCLUDED WITH COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  5. STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J U L	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING AUXILIARY BUILDING HVAC SYSTEM (VA) DIAGRAM UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-95	SHEET 5	0		

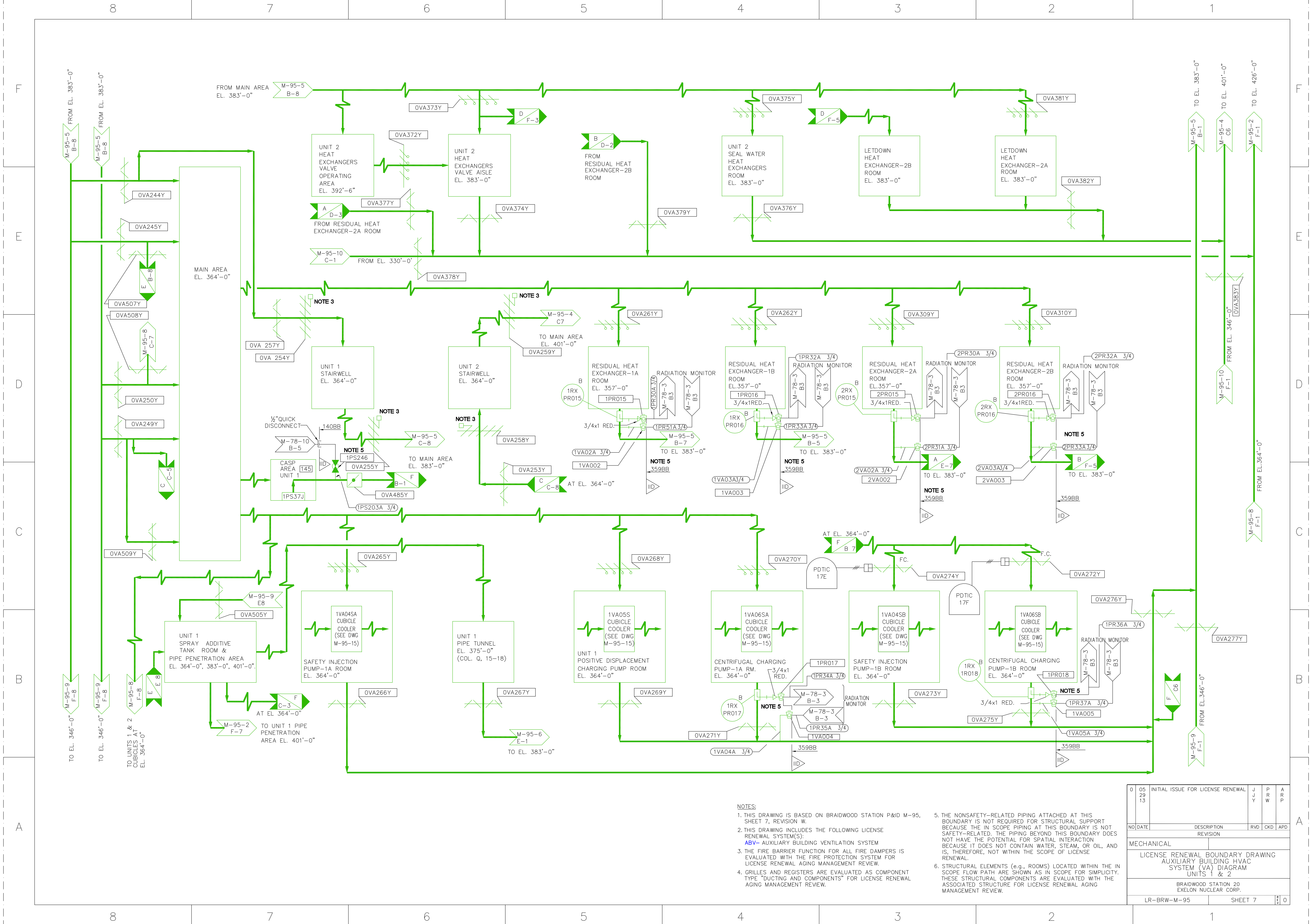


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 6, REVISION P.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
**ABV**—AUXILIARY BUILDING VENTILATION SYSTEM
- GRILLES AND REGISTERS ARE INCLUDED WITH COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING AUXILIARY BUILDING HVAC SYSTEM (VA) DIAGRAM UNIT 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-95	SHEET 6	0		



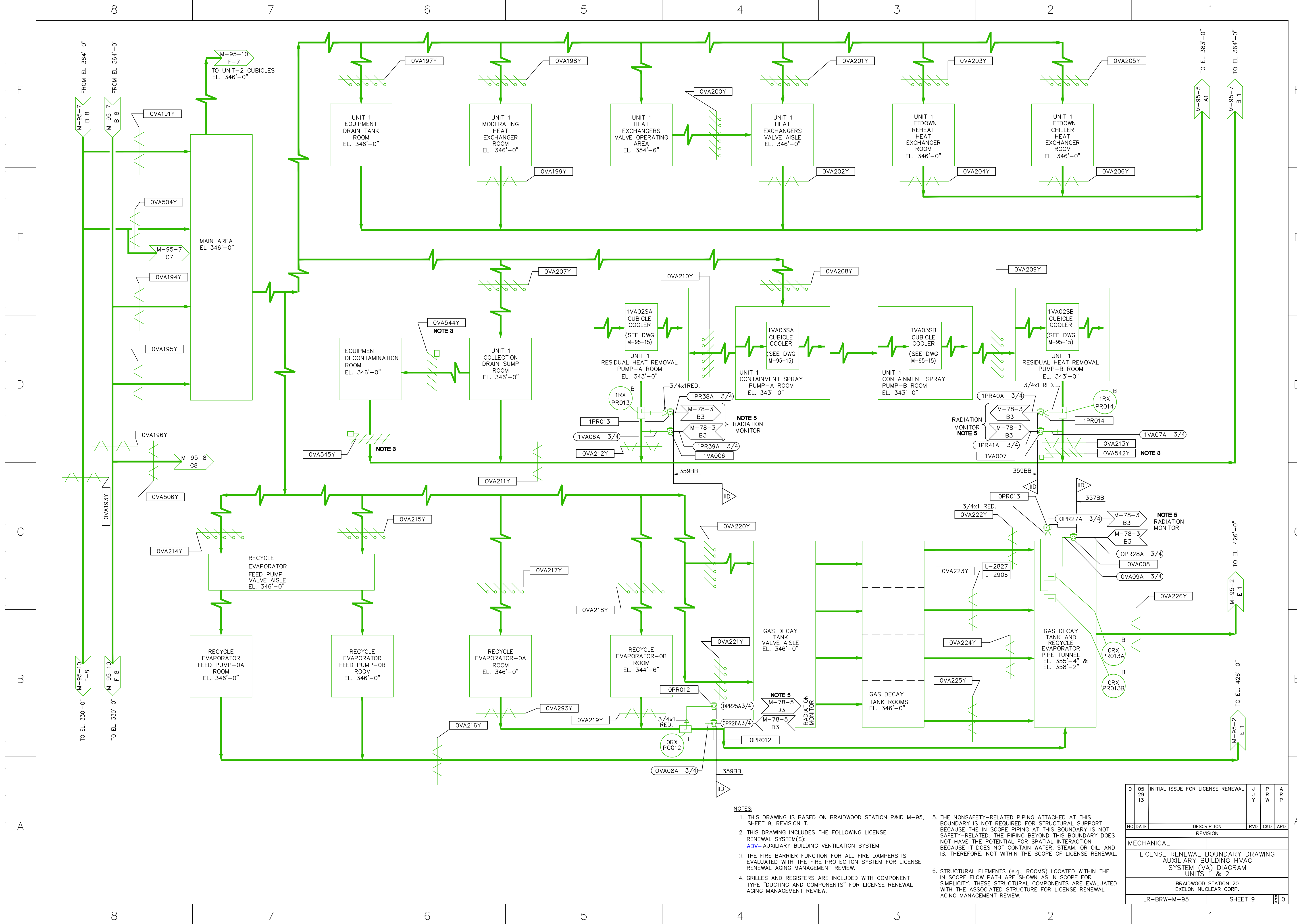


- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 7, REVISION W.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
**ABV**- AUXILIARY BUILDING VENTILATION SYSTEM
  - THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - GRILLES AND REGISTERS ARE EVALUATED AS COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  - STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J U L Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING AUXILIARY BUILDING HVAC SYSTEM (VA) DIAGRAM UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-95	SHEET 7	0		

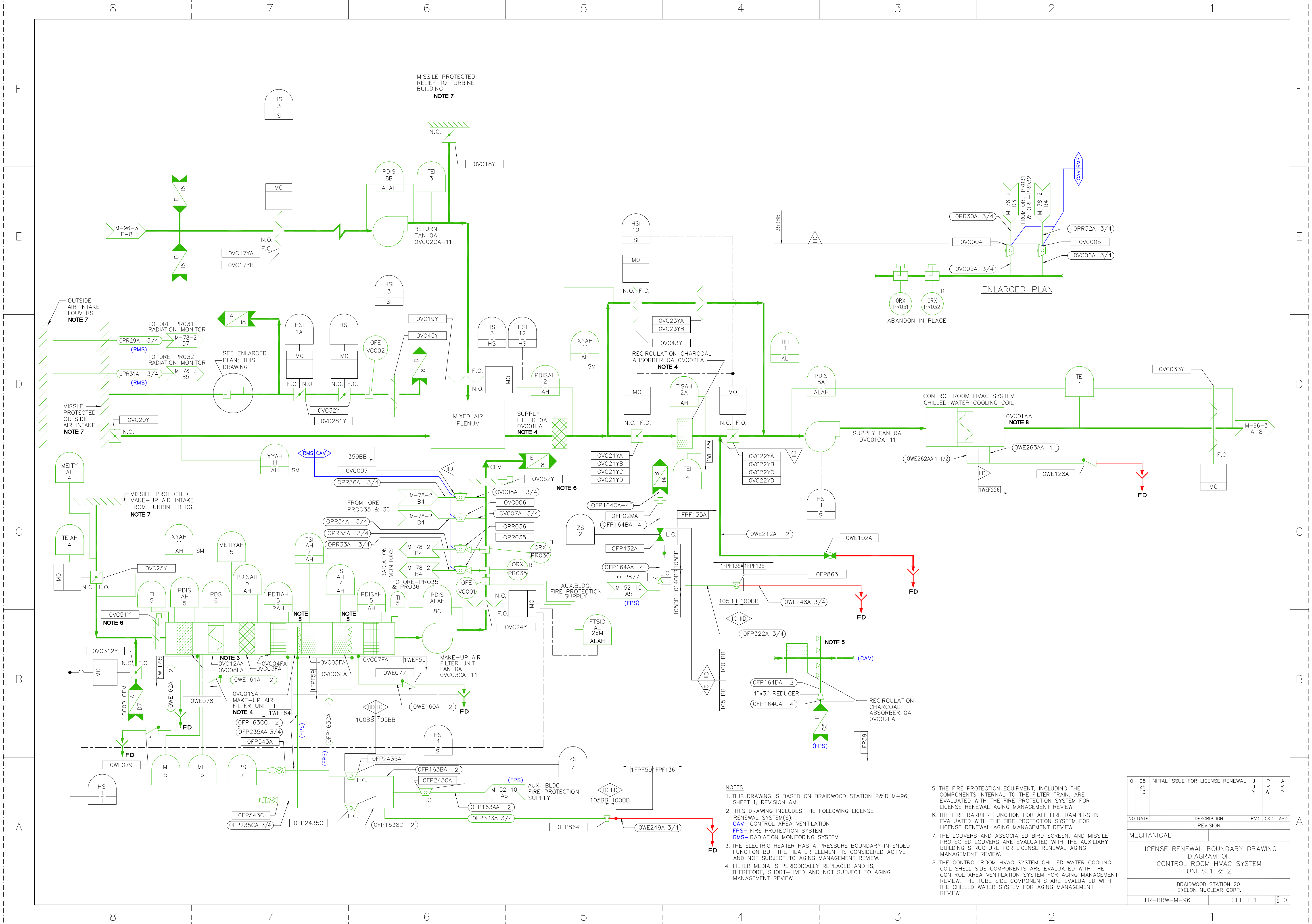






- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-95, SHEET 9, REVISION T.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
ABV-AUXILIARY BUILDING VENTILATION SYSTEM
  3. THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. GRILLES AND REGISTERS ARE INCLUDED WITH COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  5. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  6. STRUCTURAL ELEMENTS (E.G., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
	29		Y	R	R
	13		L	W	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING AUXILIARY BUILDING HVAC SYSTEM (VA) DIAGRAM UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-95 SHEET 9 0					

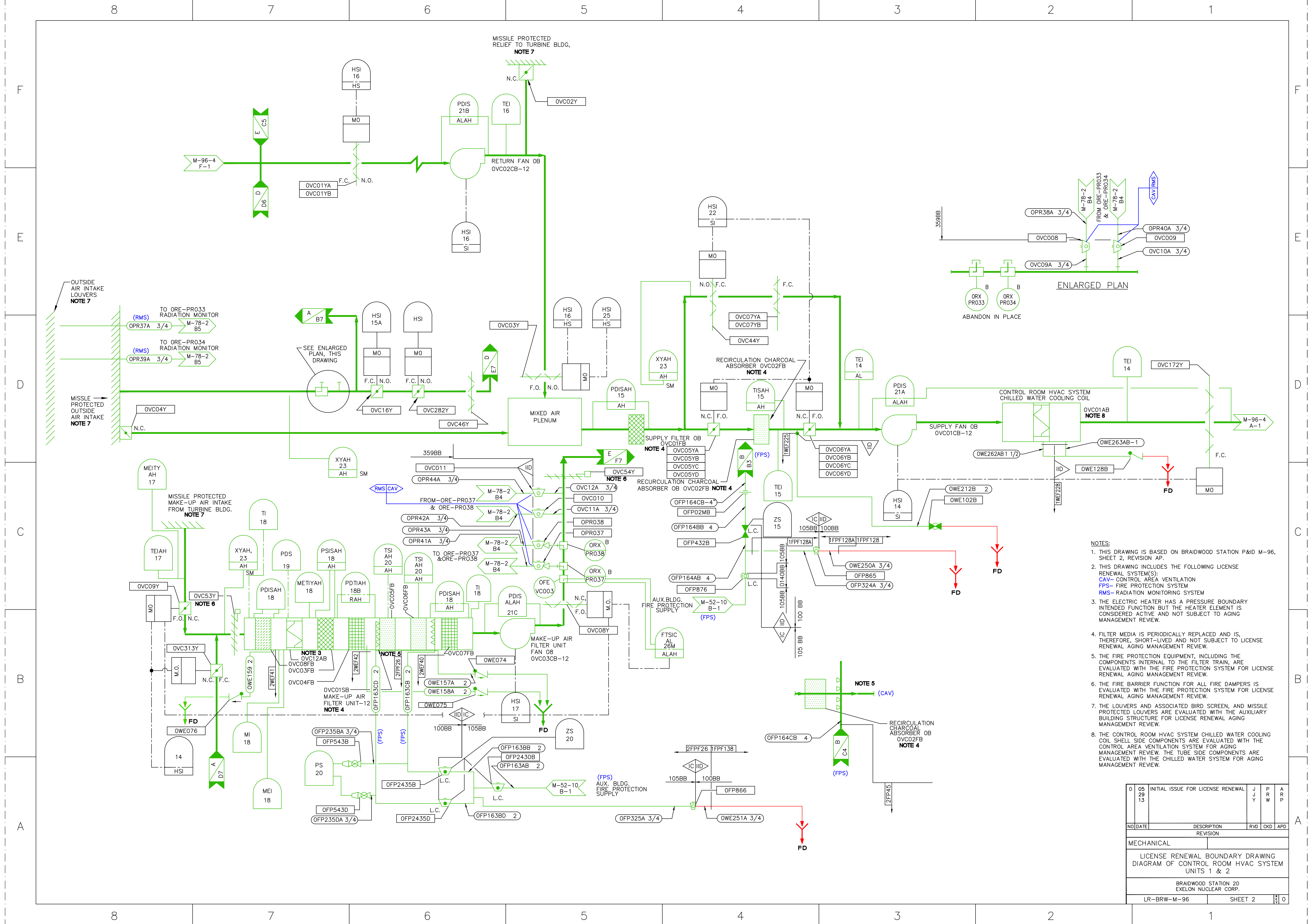


- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-96, SHEET 1, REVISION AM.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CAV- CONTROL AREA VENTILATION  
 FPS- FIRE PROTECTION SYSTEM  
 RMS- RADIATION MONITORING SYSTEM
  3. THE ELECTRIC HEATER HAS A PRESSURE BOUNDARY INTENDED FUNCTION BUT THE HEATER ELEMENT IS CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  4. FILTER MEDIA IS PERIODICALLY REPLACED AND IS, THEREFORE, SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

5. THE FIRE PROTECTION EQUIPMENT, INCLUDING THE COMPONENTS INTERNAL TO THE FILTER TRAIN, ARE EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
6. THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
7. THE LOUVERS AND ASSOCIATED BIRD SCREEN, AND MISSILE PROTECTED LOUVERS ARE EVALUATED WITH THE AUXILIARY BUILDING STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
8. THE CONTROL ROOM HVAC SYSTEM CHILLED WATER COOLING COIL SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTROL AREA VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

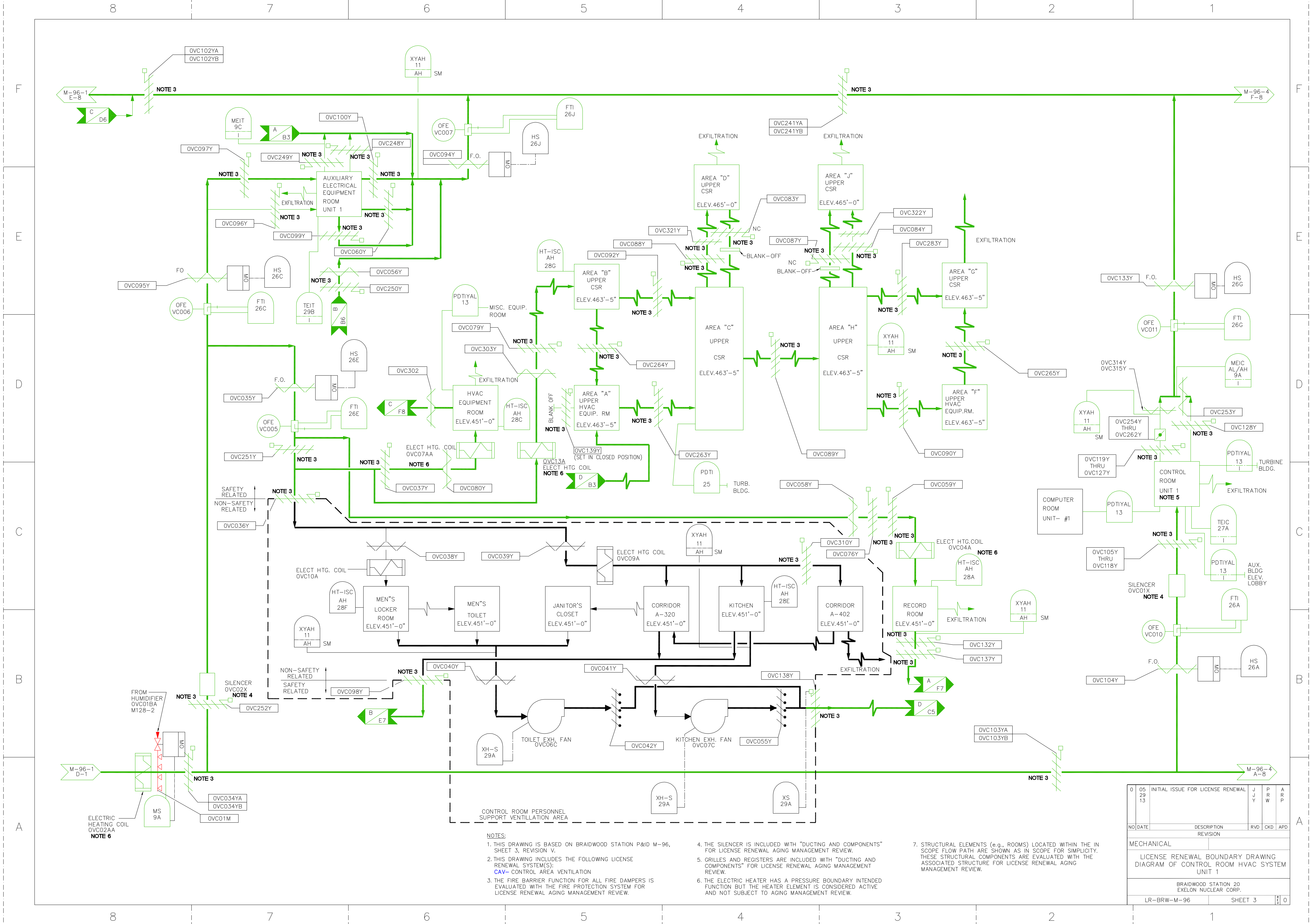
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CONTROL ROOM HVAC SYSTEM UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-96	SHEET 1	0		





- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-96, SHEET 2, REVISION AP.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CAV- CONTROL AREA VENTILATION  
 FPS- FIRE PROTECTION SYSTEM  
 RMS- RADIATION MONITORING SYSTEM
  3. THE ELECTRIC HEATER HAS A PRESSURE BOUNDARY INTENDED FUNCTION BUT THE HEATER ELEMENT IS CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  4. FILTER MEDIA IS PERIODICALLY REPLACED AND IS, THEREFORE, SHORT-LIVED AND NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  5. THE FIRE PROTECTION EQUIPMENT, INCLUDING THE COMPONENTS INTERNAL TO THE FILTER TRAIN, ARE EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  6. THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  7. THE LOUVERS AND ASSOCIATED BIRD SCREEN, AND MISSILE PROTECTED LOUVERS ARE EVALUATED WITH THE AUXILIARY BUILDING STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  8. THE CONTROL ROOM HVAC SYSTEM CHILLED WATER COOLING COIL SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTROL AREA VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		Y	R	R
				W	P
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CONTROL ROOM HVAC SYSTEM UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-96		SHEET 2		0	



SAFETY RELATED  
NON-SAFETY RELATED

NON-SAFETY RELATED  
SAFETY RELATED

**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-96, SHEET 3, REVISION V.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CAV- CONTROL AREA VENTILATION
3. THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
4. THE SILENCER IS INCLUDED WITH "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
5. GRILLES AND REGISTERS ARE INCLUDED WITH "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
6. THE ELECTRIC HEATER HAS A PRESSURE BOUNDARY INTENDED FUNCTION BUT THE HEATER ELEMENT IS CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
7. STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CONTROL ROOM HVAC SYSTEM UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-96		SHEET 3		0





8 7 6 5 4 3 2 1

F F

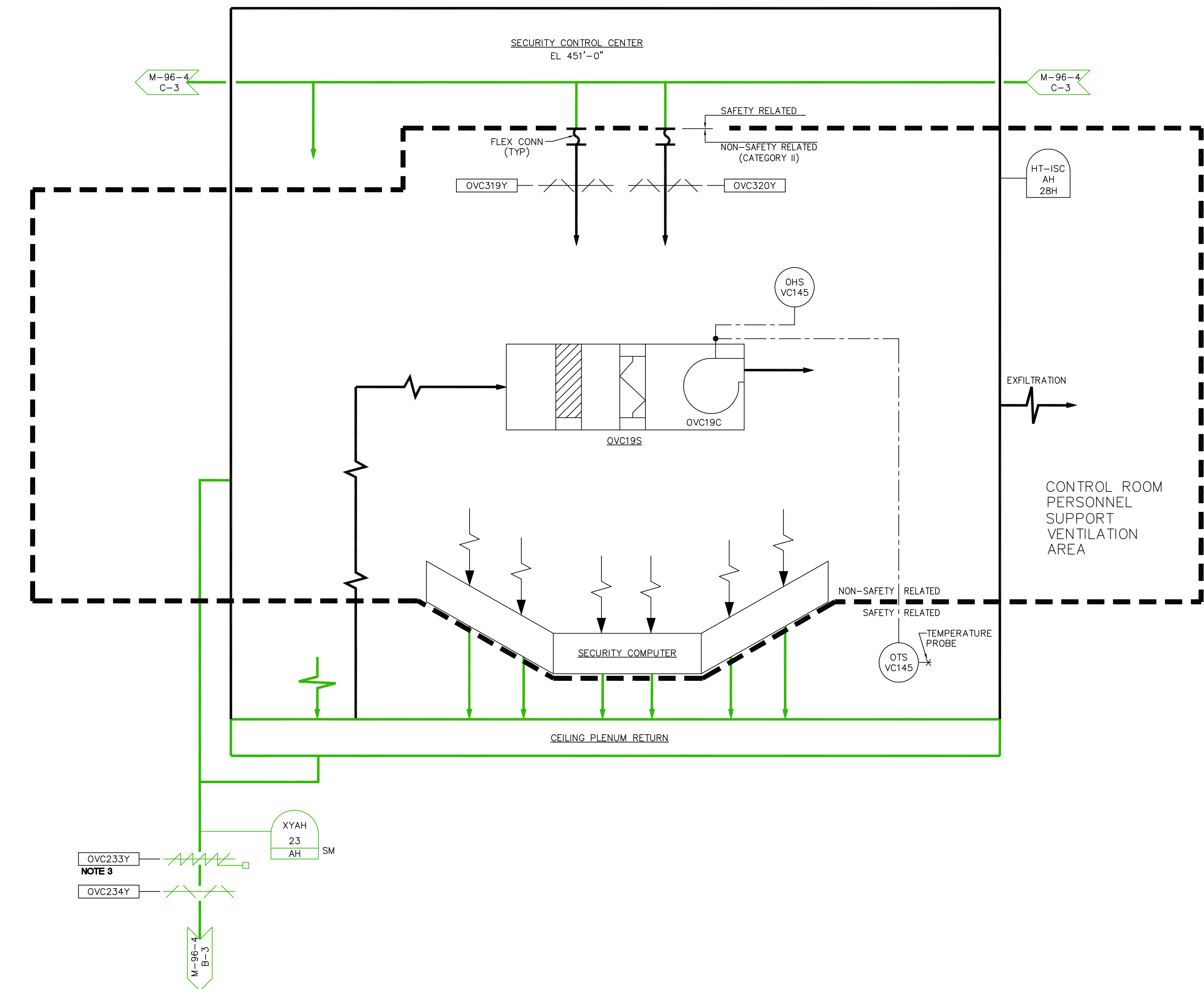
E E

D D

C C

B B

A A



OVC233Y  
NOTE 3  
OVC234Y

XYAH  
23  
AH SM

M-96-4  
C-3

M-96-4  
C-3

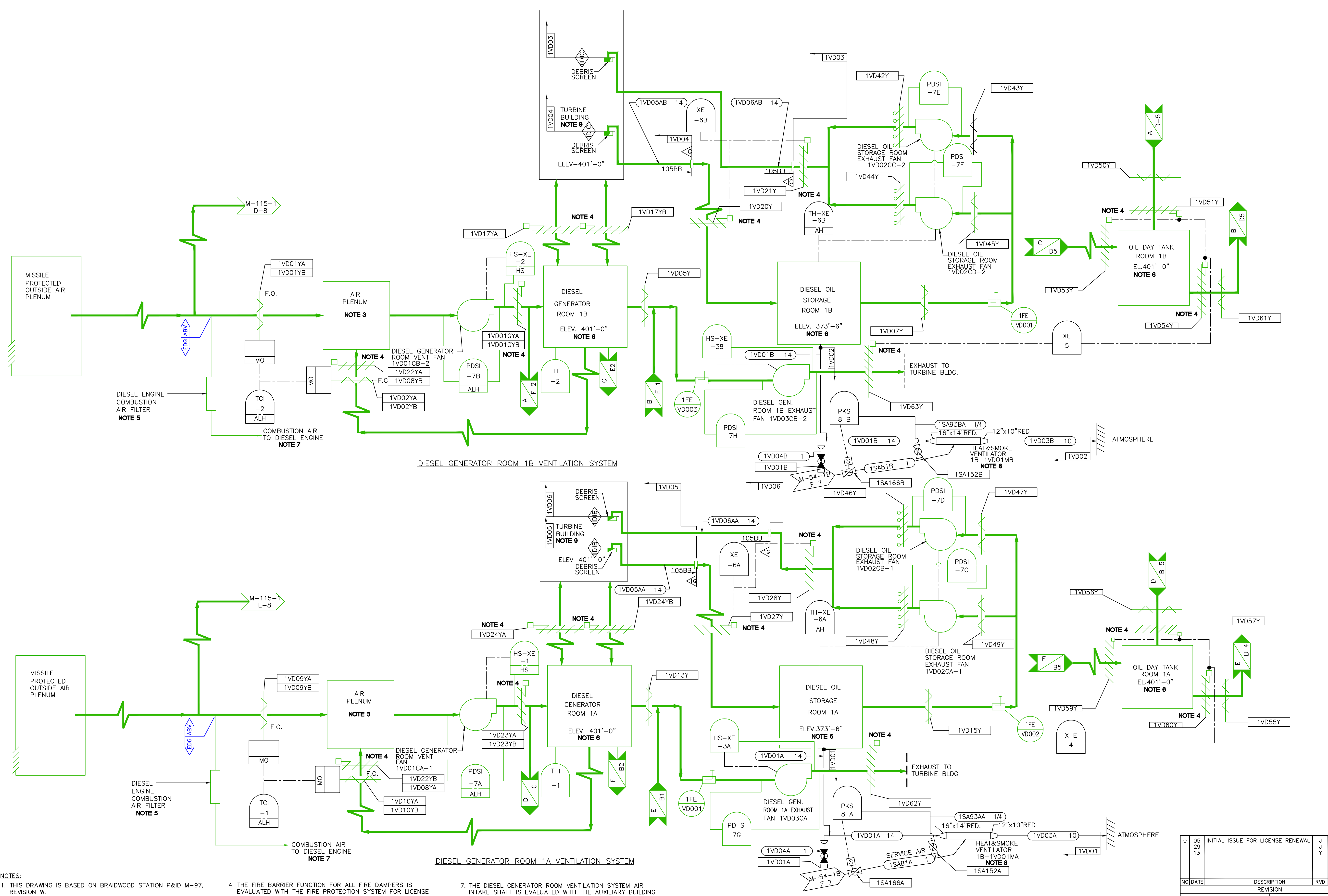
M-96-4  
B-3

- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-96, SHEET 5, REVISION E.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CAV- CONTROL AREA VENTILATION
  3. THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		Y	R	R
				W	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
CONTROL ROOM HVAC SYSTEM					
SECURITY CONTROL CENTER					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-96		SHEET 5		0	

8 7 6 5 4 3 2 1





DIESEL GENERATOR ROOM 1B VENTILATION SYSTEM

DIESEL GENERATOR ROOM 1A VENTILATION SYSTEM

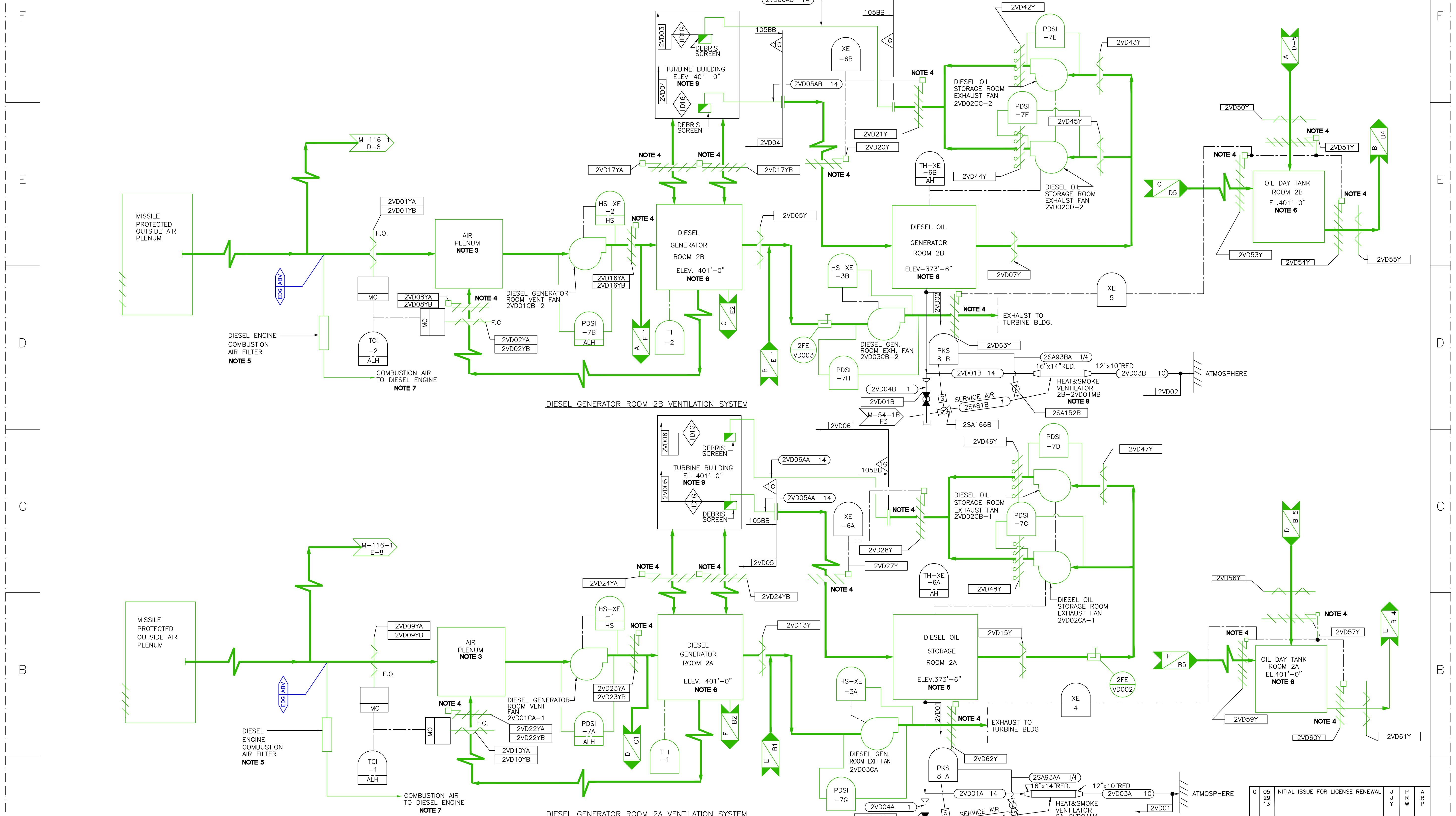
- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-97, REVISION W.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM
  - THE AIR PLENUM IS INCLUDED WITH COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

- THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- FILTER ELEMENT IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

- THE DIESEL GENERATOR ROOM VENTILATION SYSTEM AIR INTAKE SHAFT IS EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. SEE M-152, SHEET 17 FOR CONTINUATION OF EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM COMBUSTION AIR INTAKE.
- THE NON-SAFETY RELATED "HEAT AND SMOKE VENTILATOR" SUBSYSTEM IS FOR POST-EVENT RECOVERY AND IS NOT USED TO PREVENT, DETECT, SUPPRESS, OR MITIGATE A FIRE AND, THEREFORE, IS NOT IN SCOPE FOR LICENSE RENEWAL.

- THE DIESEL OIL STORAGE TANK ROOM VENTILATION INLET AND OUTLET LINES LOCATED IN THE TURBINE BUILDING SUPPORT THE FLOOD BARRIER FUNCTION OF THE AUXILIARY BUILDING AND ARE, THEREFORE, EVALUATED WITH THE AUXILIARY BUILDING FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF DIESEL GENERATOR ROOMS 1A & 1B VENTILATION SYSTEM UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-97		SHEET 1		0



**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-98, SHEET 1, REVISION V.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM
3. THE AIR PLENUM IS INCLUDED WITH COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

4. THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
5. FILTER ELEMENT IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
6. STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

7. THE DIESEL GENERATOR ROOM VENTILATION SYSTEM AIR INTAKE SHAFT IS EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. SEE M-152, SHEET 17 FOR CONTINUATION OF EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM COMBUSTION AIR INTAKE.
8. THE NON-SAFETY RELATED "HEAT AND SMOKE VENTILATOR" SUBSYSTEM IS FOR POST-EVENT RECOVERY AND IS NOT USED TO PREVENT, DETECT, SUPPRESS, OR MITIGATE A FIRE AND, THEREFORE, IS NOT IN SCOPE FOR LICENSE RENEWAL.

9. THE DIESEL OIL STORAGE TANK ROOM VENTILATION INLET AND OUTLET LINES LOCATED IN THE TURBINE BUILDING SUPPORT THE FLOOD BARRIER FUNCTION OF THE AUXILIARY BUILDING AND ARE, THEREFORE, EVALUATED WITH THE AUXILIARY BUILDING FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF GENERATOR ROOMS 2A & 2B VENTILATION SYSTEM UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-98	SHEET 1	0		



8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

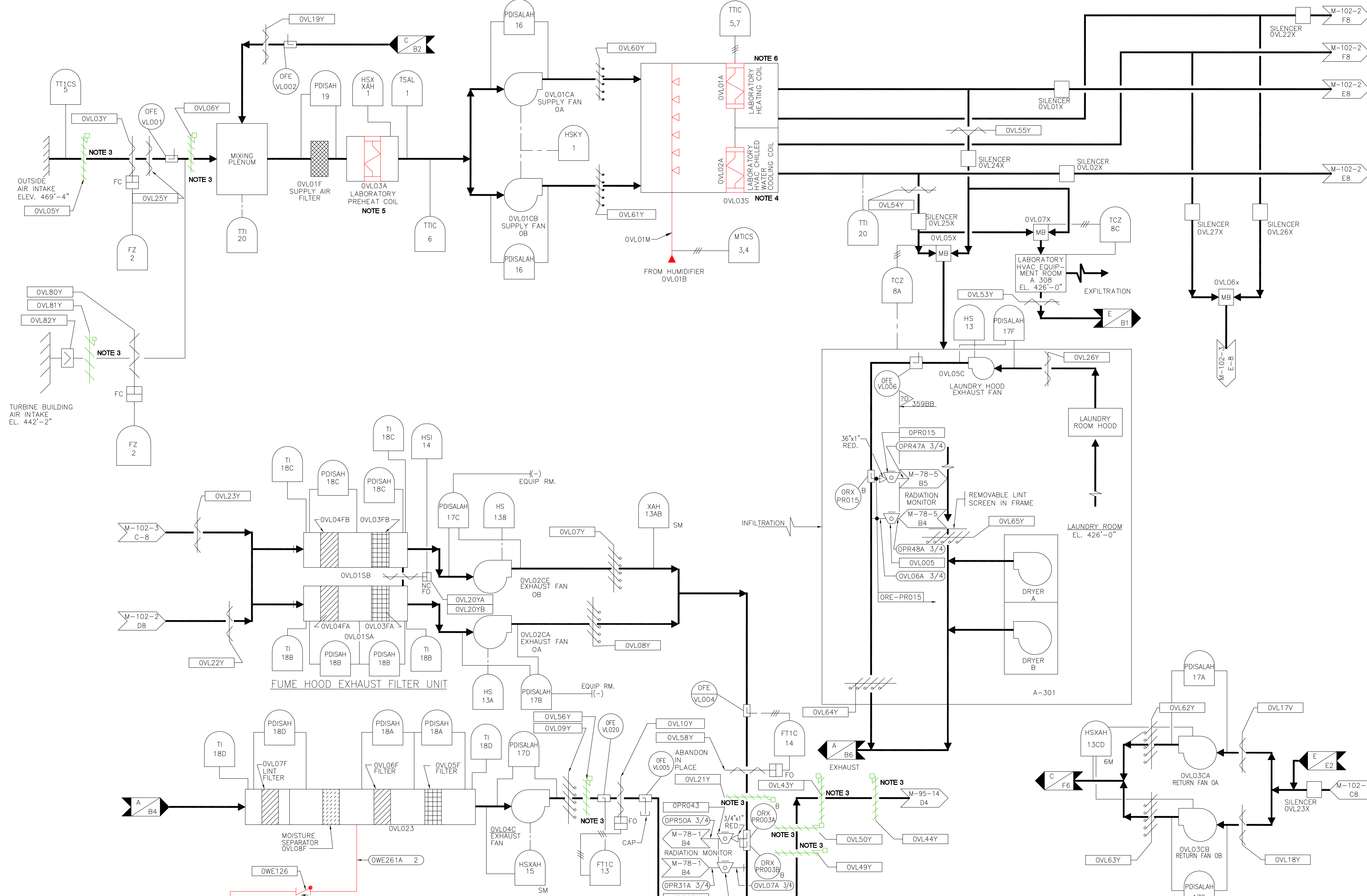
E

D

C

B

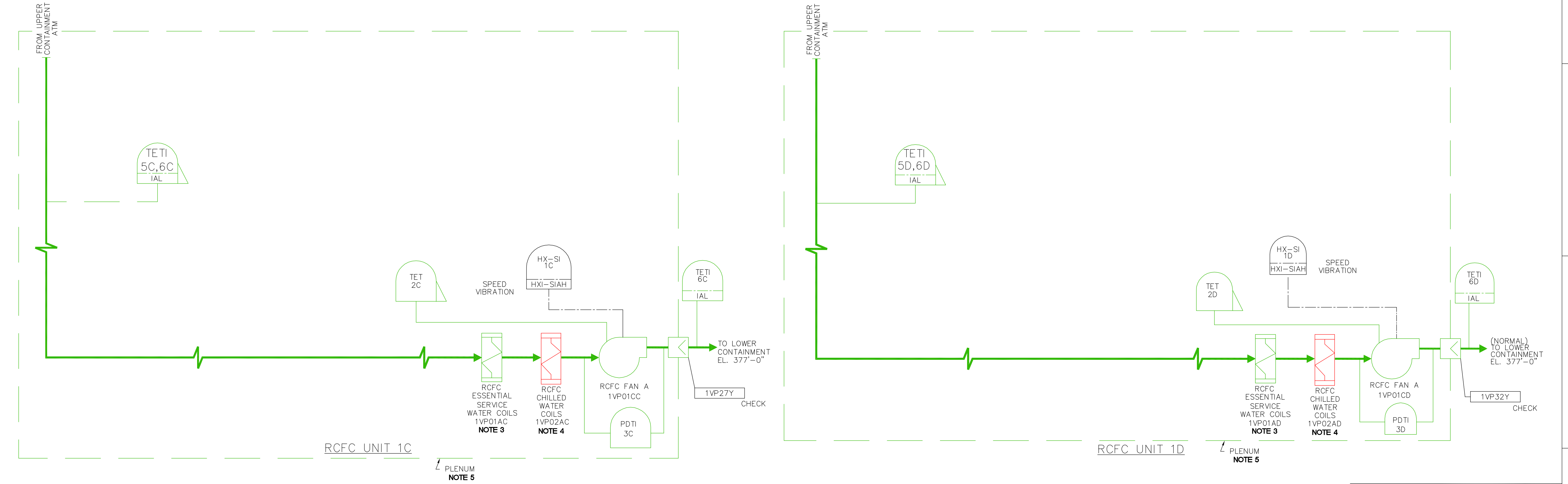
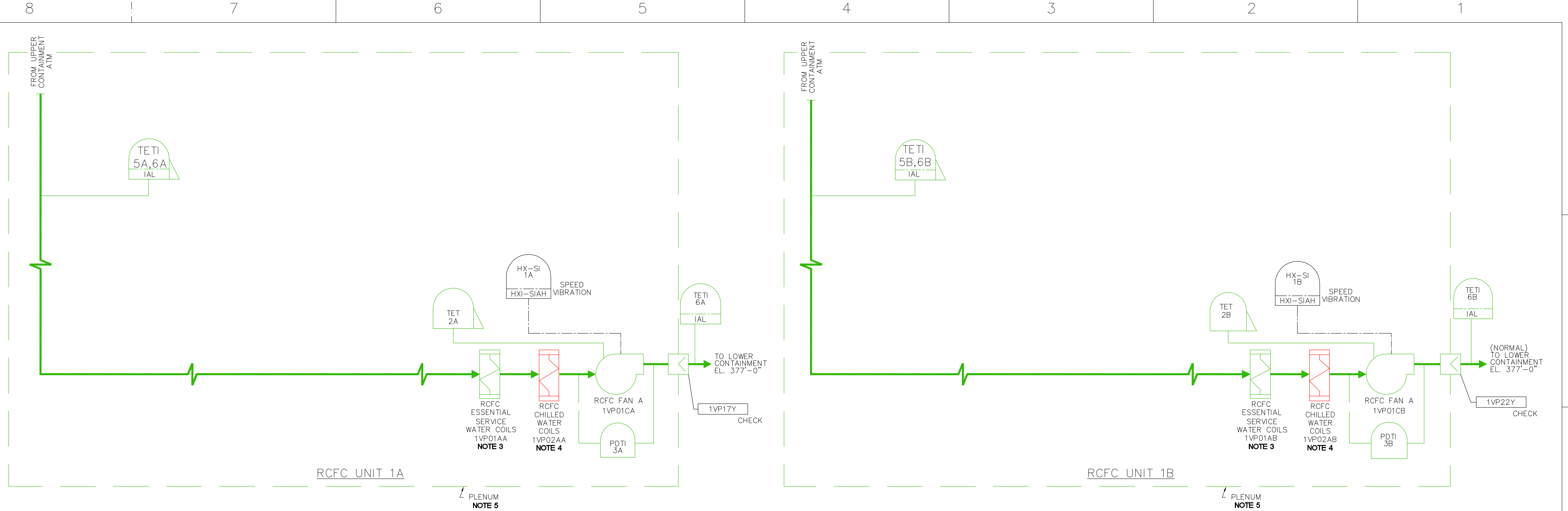
A



NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-102, SHEET 1, REVISION AB.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
ABV- AUXILIARY BUILDING VENTILATION SYSTEM
3. THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
4. THE LABORATORY HVAC CHILLED WATER COOLING COIL CONSISTS OF COOLING COILS LOCATED IN HVAC UNIT HOUSINGS. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
5. THE LABORATORY PREHEAT COIL CONSISTS OF HOT WATER HEATING COILS LOCATED IN HVAC UNIT HOUSINGS. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
6. THE LABORATORY HEATING COIL CONSISTS OF HOT WATER HEATING COILS LOCATED IN HVAC UNIT HOUSINGS. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF LABORATORY HVAC SYSTEM (VL) UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-102	SHEET 1	0		



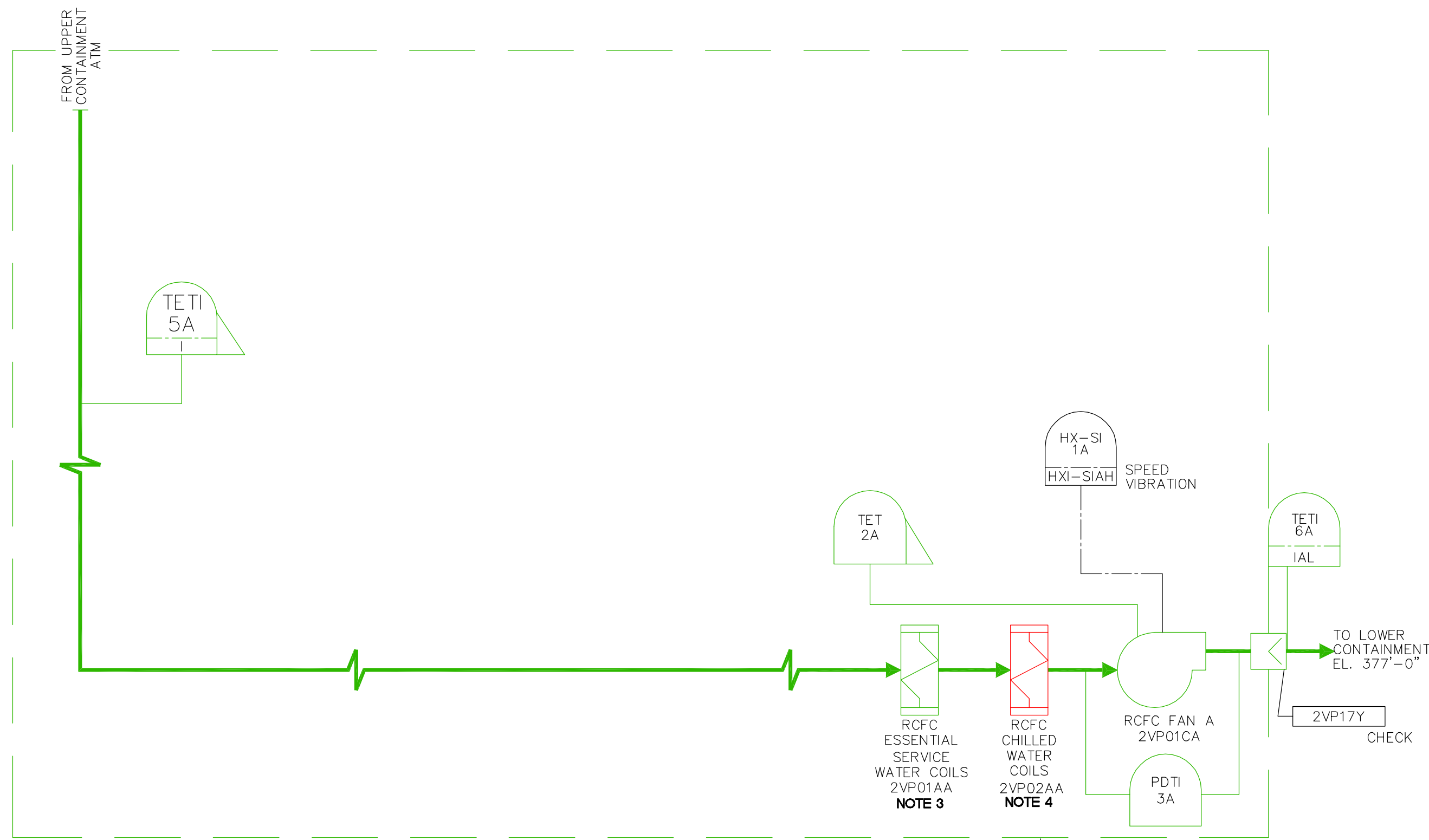
**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-103, SHEET 2, REVISION E.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CVS- CONTAINMENT VENTILATION SYSTEM
3. THE RCFC ESSENTIAL SERVICE WATER COILS TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE HVAC UNIT HOUSING IS INCLUDED WITH THE COMPONENT TYPE DUCTING AND COMPONENTS FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
4. THE RCFC CHILLED WATER COILS TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
5. THE PLENUM IS INCLUDED WITH "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

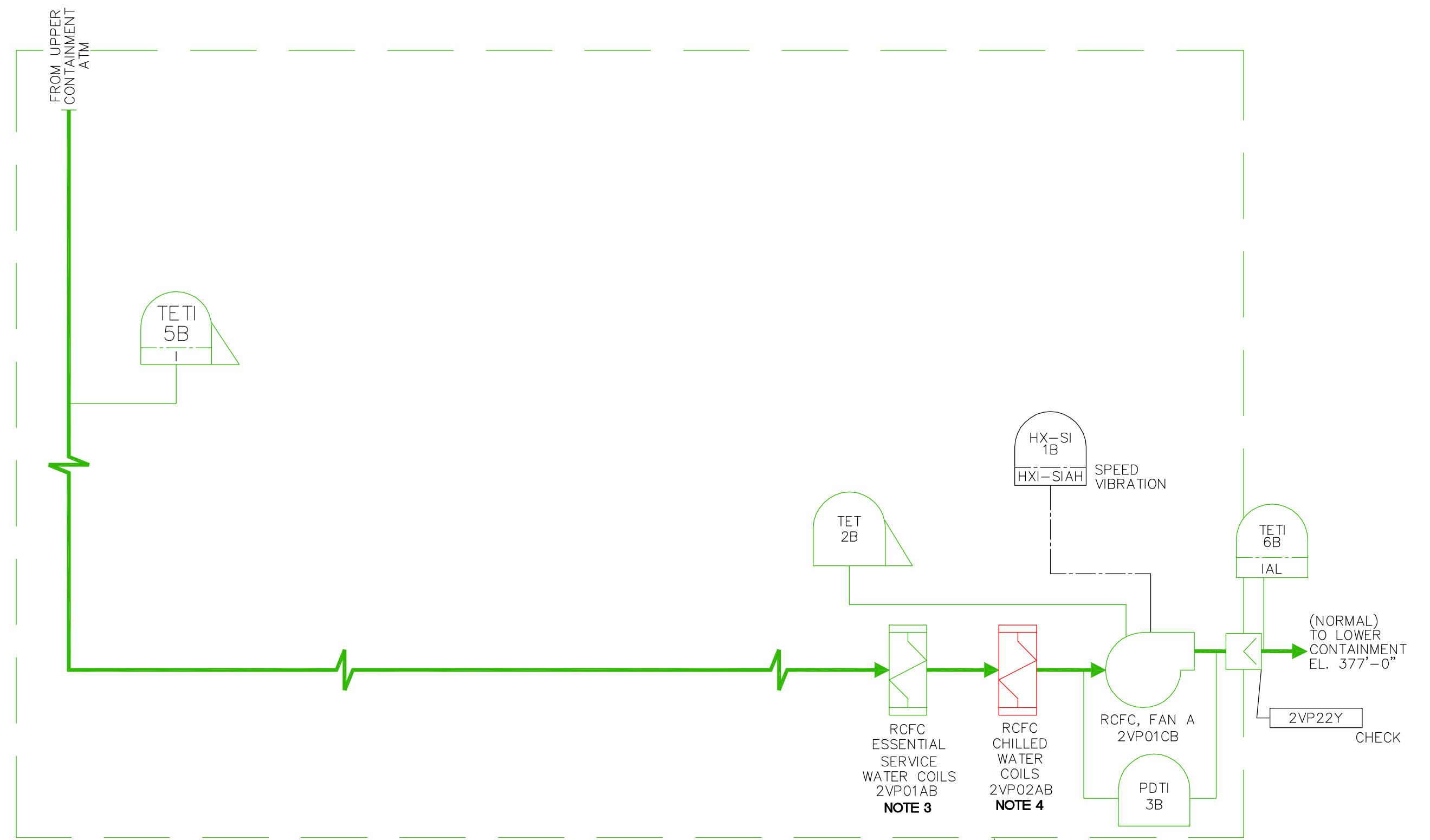
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PRIMARY CONTAINMENT VENT. SYSTEM (VP) UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-103		SHEET 2		0



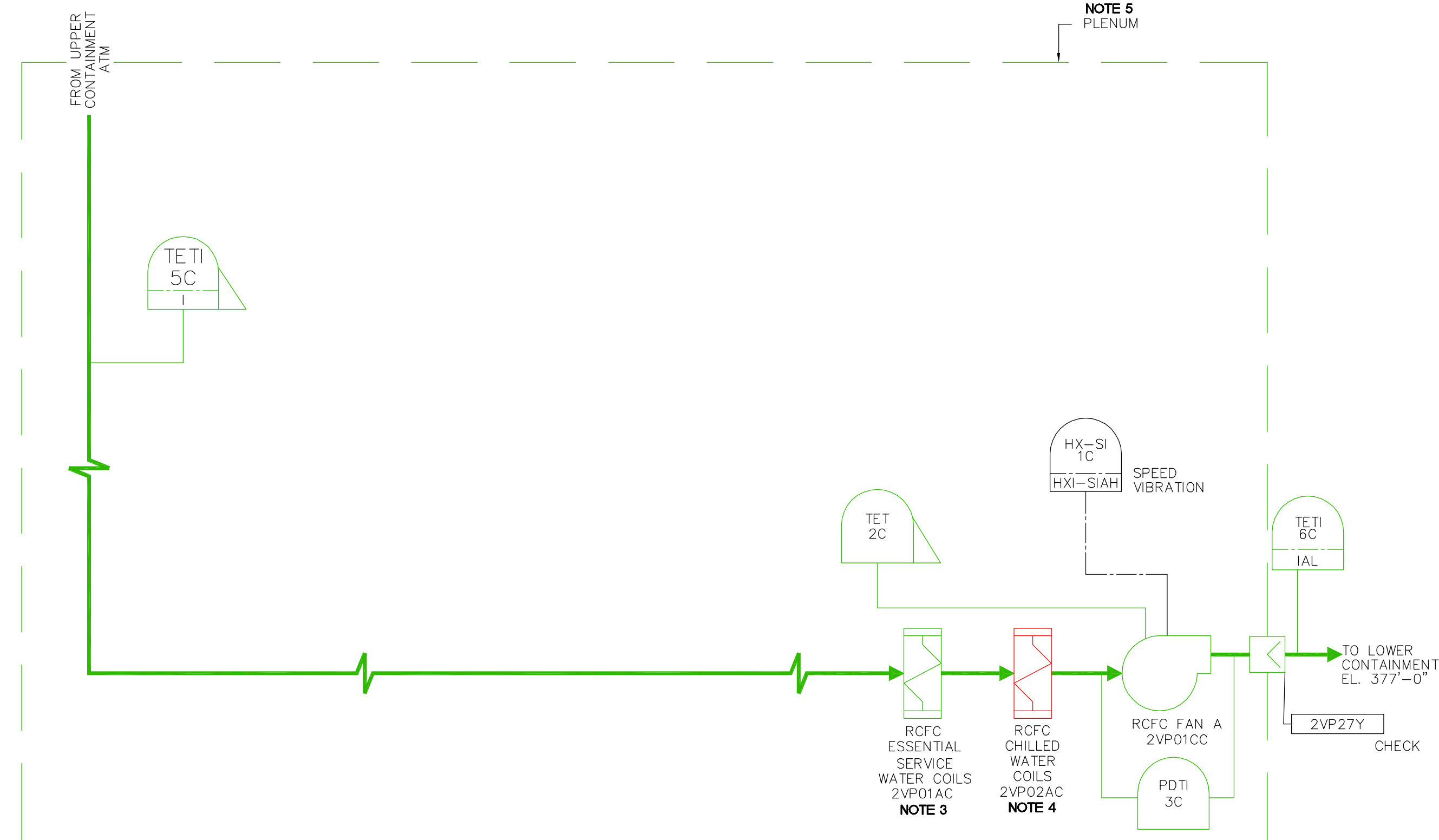




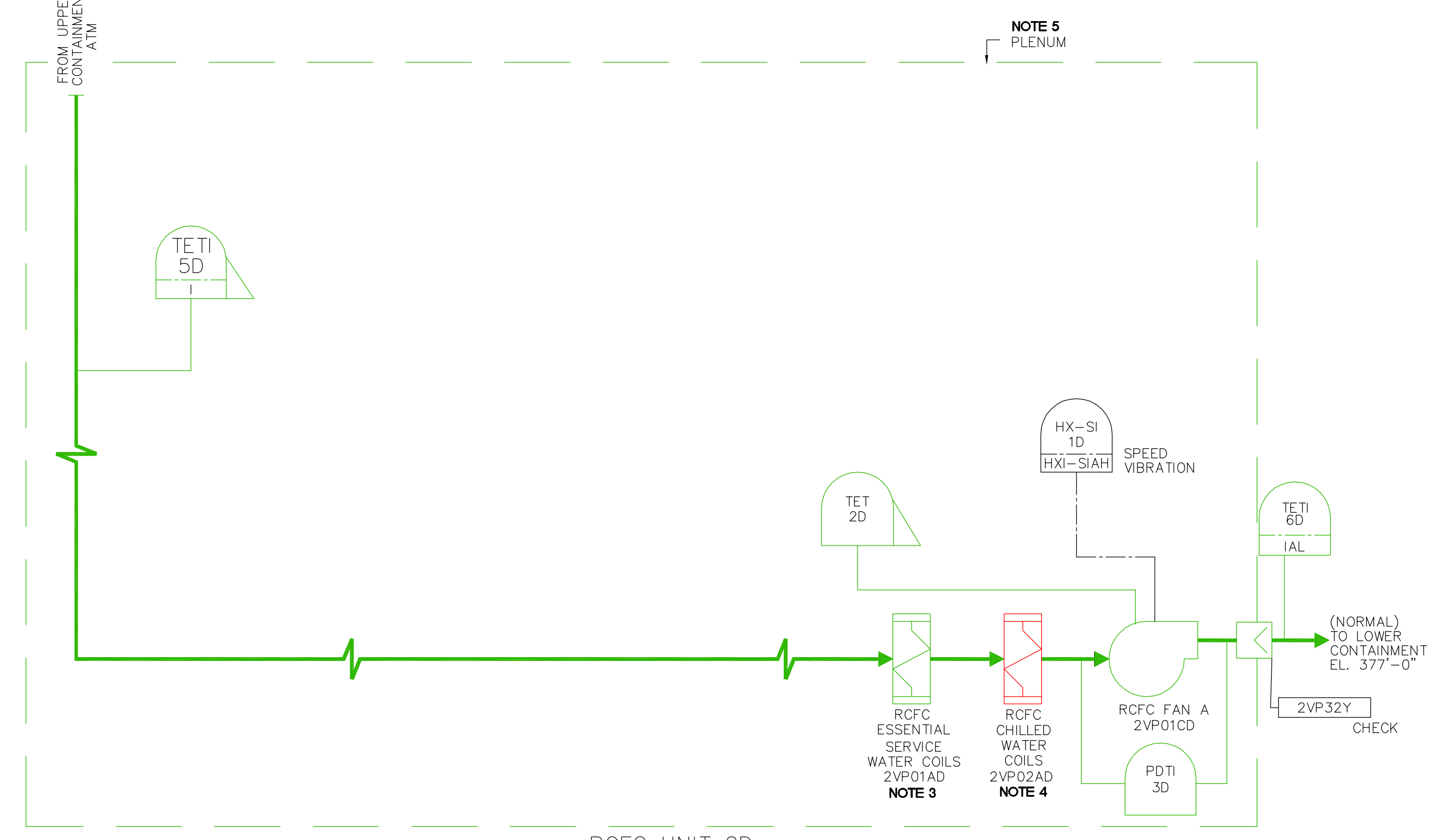
RCFC UNIT 2A



RCFC UNIT 2B



RCFC UNIT 2C



RCFC UNIT 2D

NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-104, SHEET 2, REVISION E.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CVS- CONTAINMENT VENTILATION SYSTEM
- THE RCFC ESSENTIAL SERVICE WATER COILS TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE HVAC UNIT HOUSING IS INCLUDED WITH THE COMPONENT TYPE DUCTING AND COMPONENTS FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

- THE RCFC CHILLED WATER COILS TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
- THE PLENUM IS INCLUDED WITH "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29			V	R	R
13			Y	W	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PRIMARY CONTAINMENT VENT. SYSTEM (VP) UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-104		SHEET 2		0	



8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

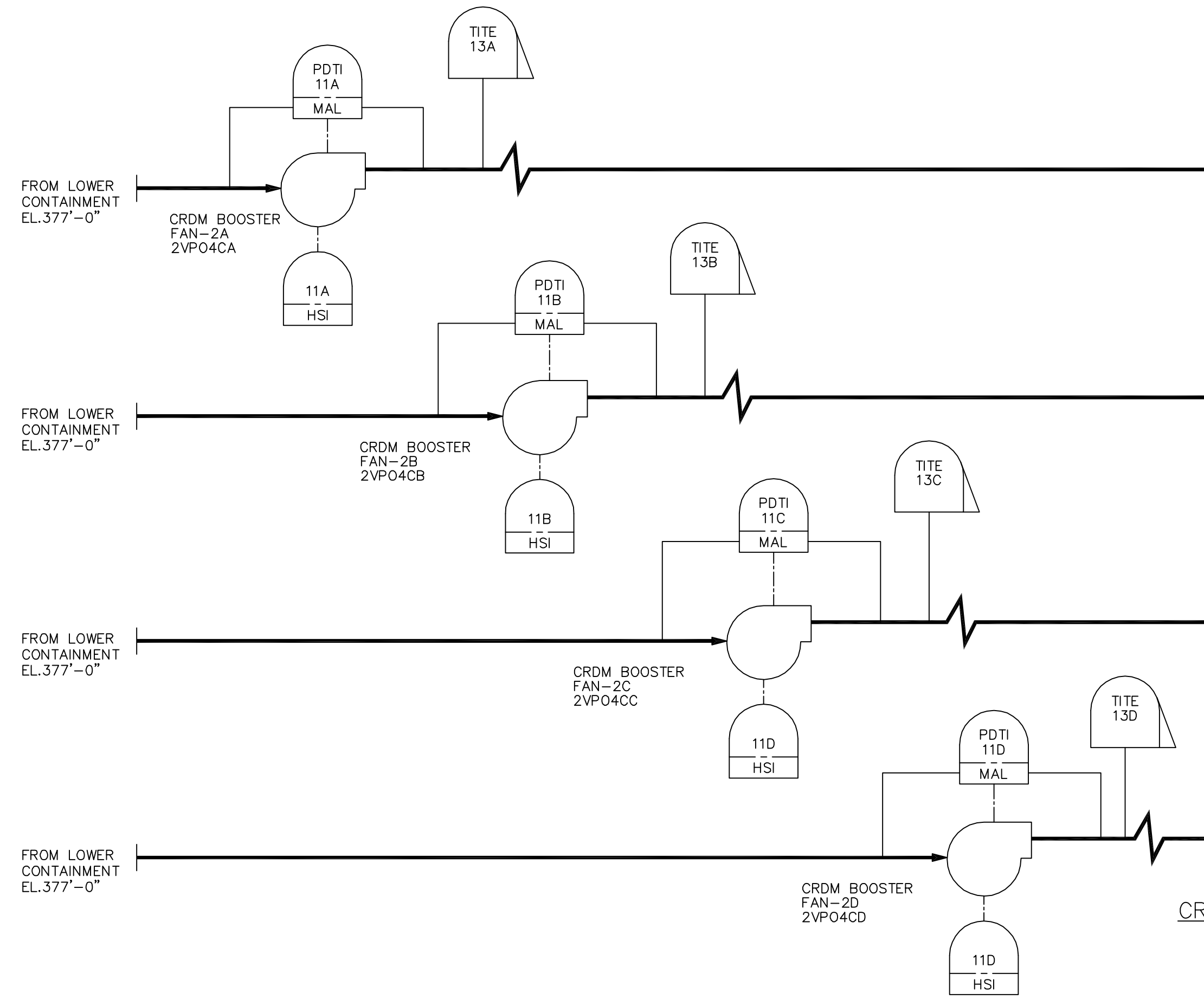
E

D

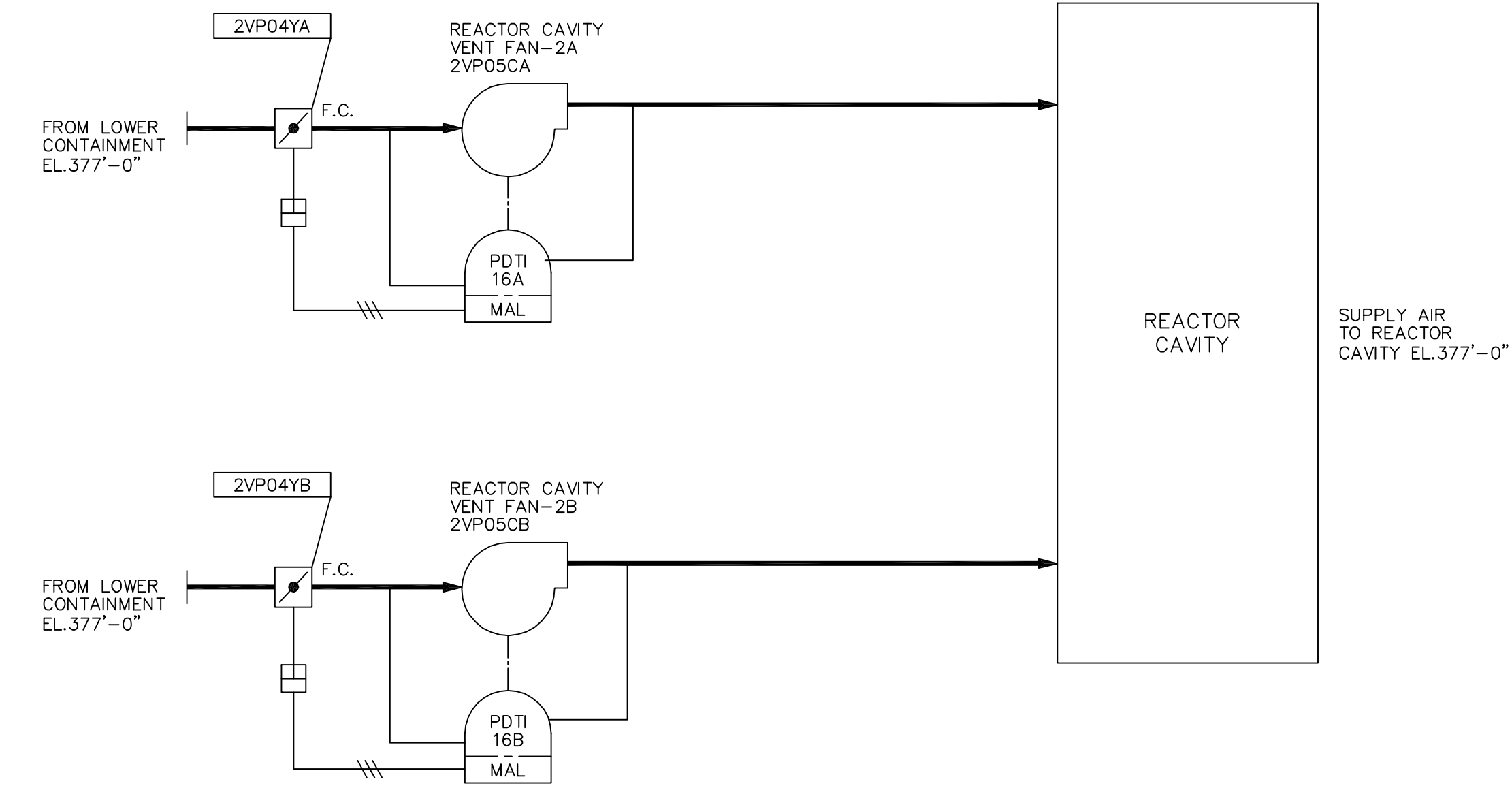
C

B

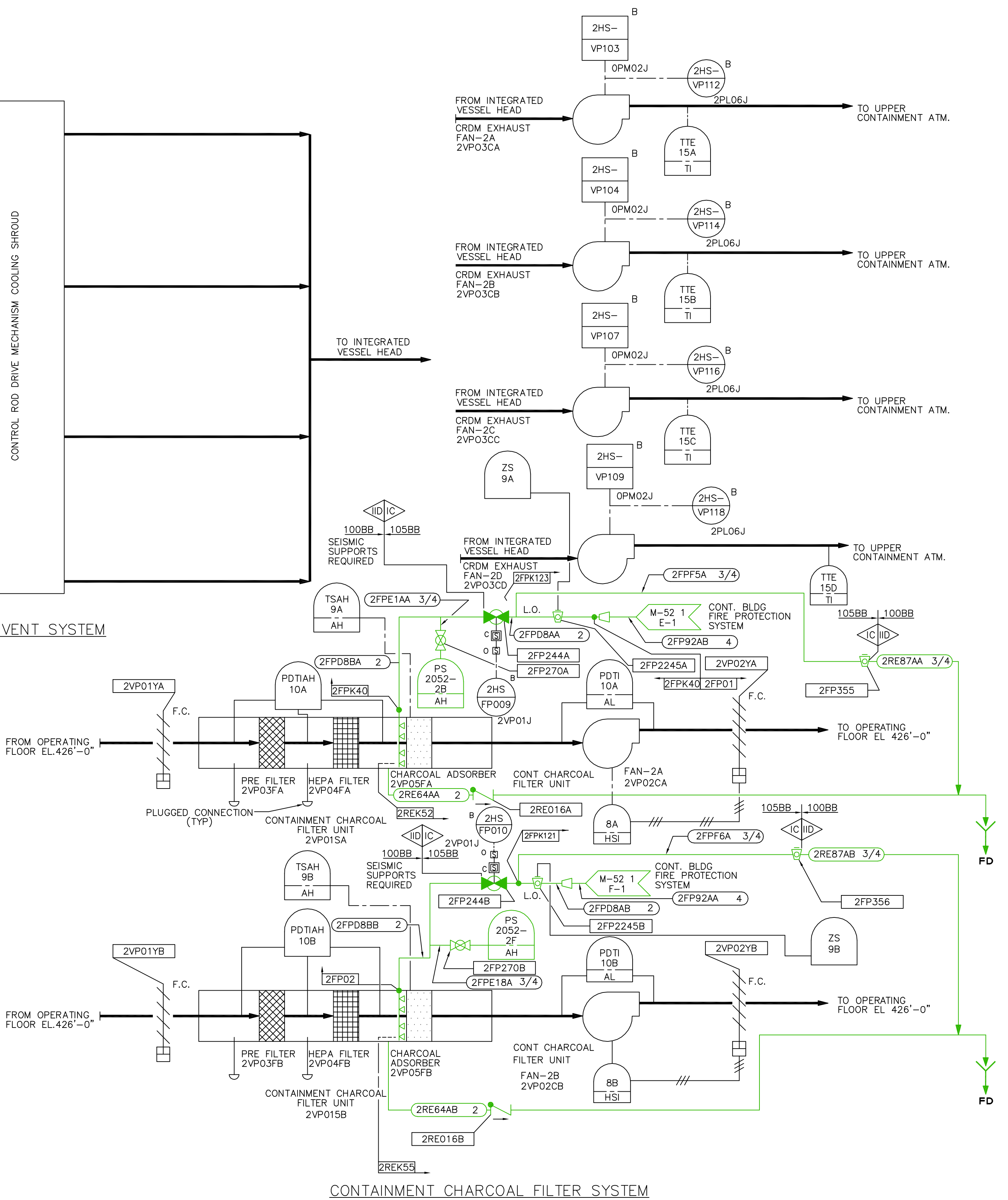
A



CRDM VENT SYSTEM



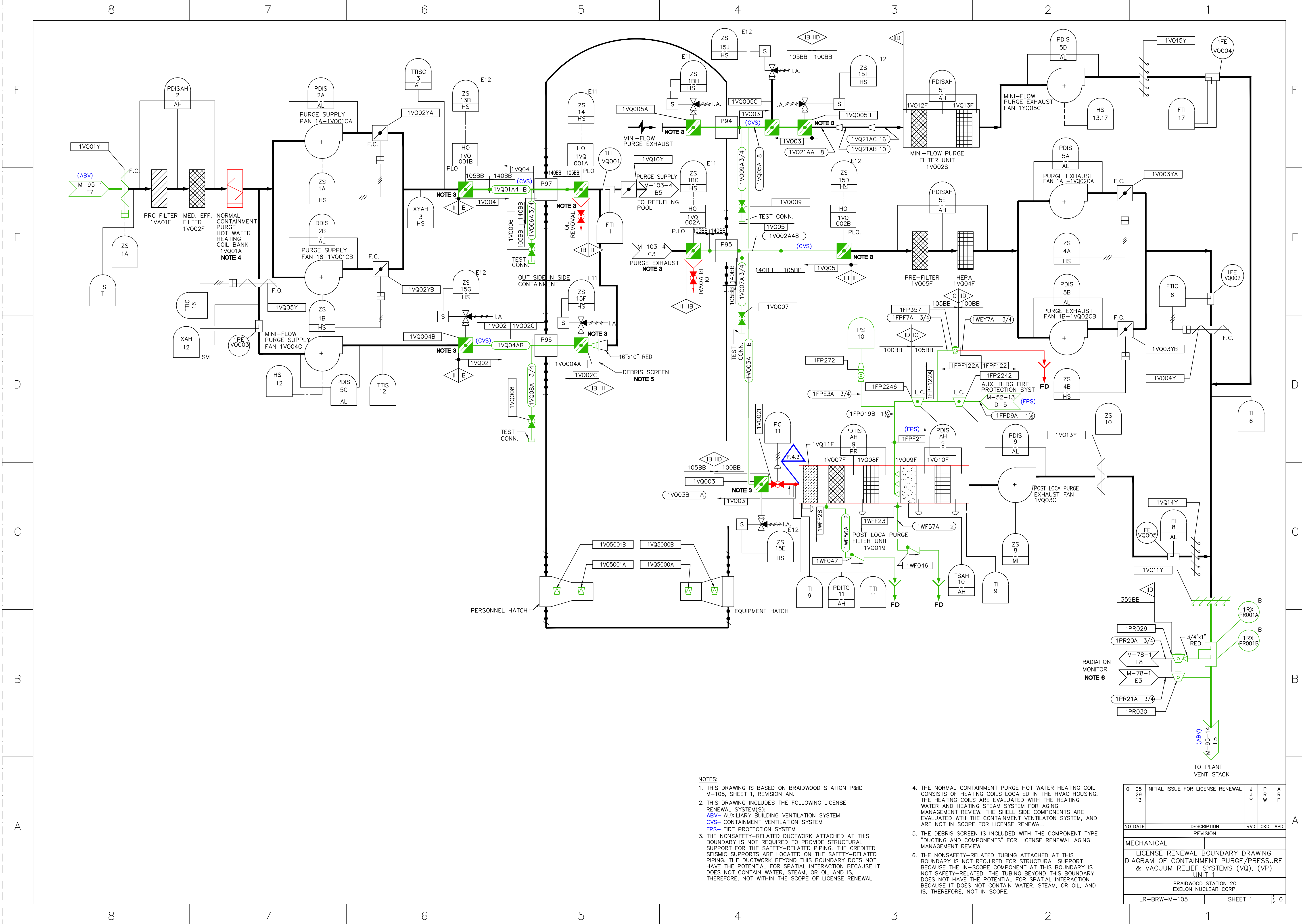
REACTOR CAVITY VENT SYSTEM



CONTAINMENT CHARCOAL FILTER SYSTEM

NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-104, SHEET 3, REVISION P.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 FPS- FIRE PROTECTION SYSTEM

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF PRIMARY CONTAINMENT VENT.				
SYSTEM (VP)				
UNIT 2				
BRAIDWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-104	SHEET 3	0		



**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-105, SHEET 1, REVISION AN.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVS- CONTAINMENT VENTILATION SYSTEM  
 FPS- FIRE PROTECTION SYSTEM
- THE NONSAFETY-RELATED DUCTWORK ATTACHED AT THIS BOUNDARY IS NOT REQUIRED TO PROVIDE STRUCTURAL SUPPORT FOR THE SAFETY-RELATED PIPING. THE CREDITED SEISMIC SUPPORTS ARE LOCATED ON THE SAFETY-RELATED PIPING. THE DUCTWORK BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
- THE NORMAL CONTAINMENT PURGE HOT WATER HEATING COIL CONSISTS OF HEATING COILS LOCATED IN THE HVAC HOUSING. THE HEATING COILS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
- THE DEBRIS SCREEN IS INCLUDED WITH THE COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- THE NONSAFETY-RELATED TUBING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN-SCOPE COMPONENT AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE TUBING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL, AND IS, THEREFORE, NOT IN SCOPE.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		J	R	R
			Y	W	P
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF CONTAINMENT PURGE/PRESSURE					
& VACUUM RELIEF SYSTEMS (VQ), (VP)					
UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-105		SHEET 1		0	



8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

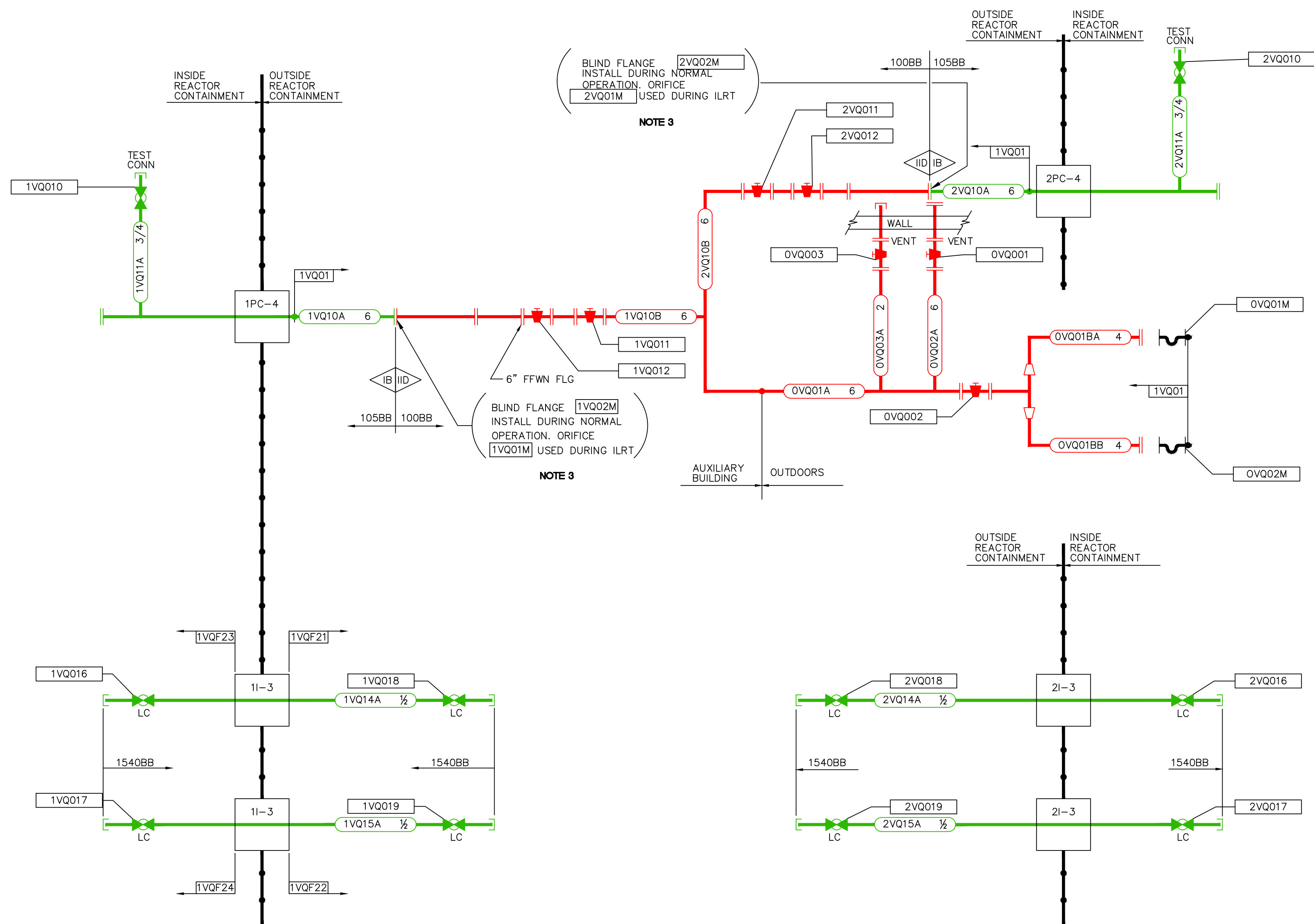
E

D

C

B

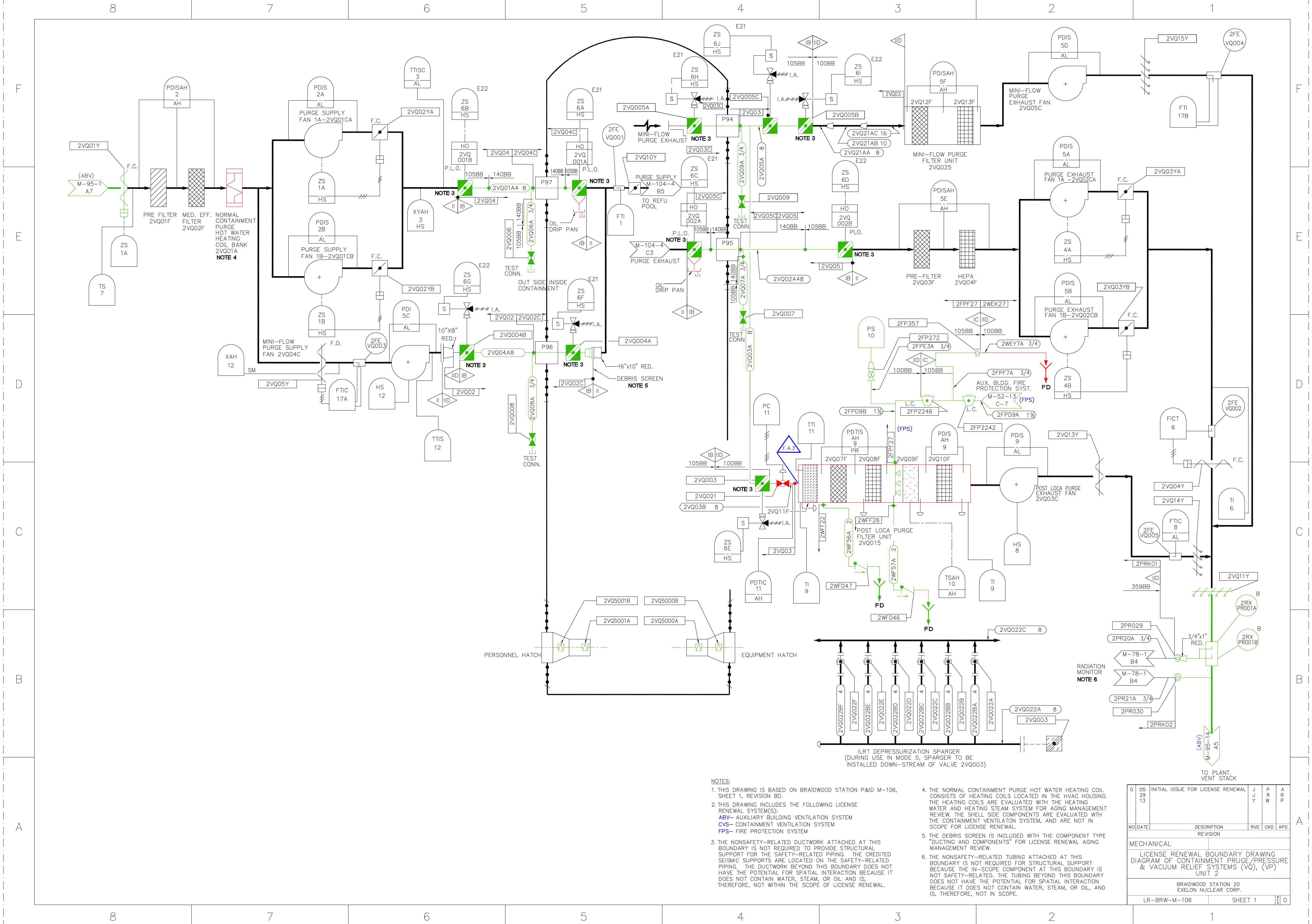
A



**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-105, SHEET 3, REVISION K.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CVS- CONTAINMENT VENTILATION SYSTEM
- THE RESTRICTING ORIFICE IS ONLY USED FOR TESTING AND IS NOT NORMALLY INSTALLED AND, THEREFORE, IS NOT IN SCOPE FOR LICENSE RENEWAL.

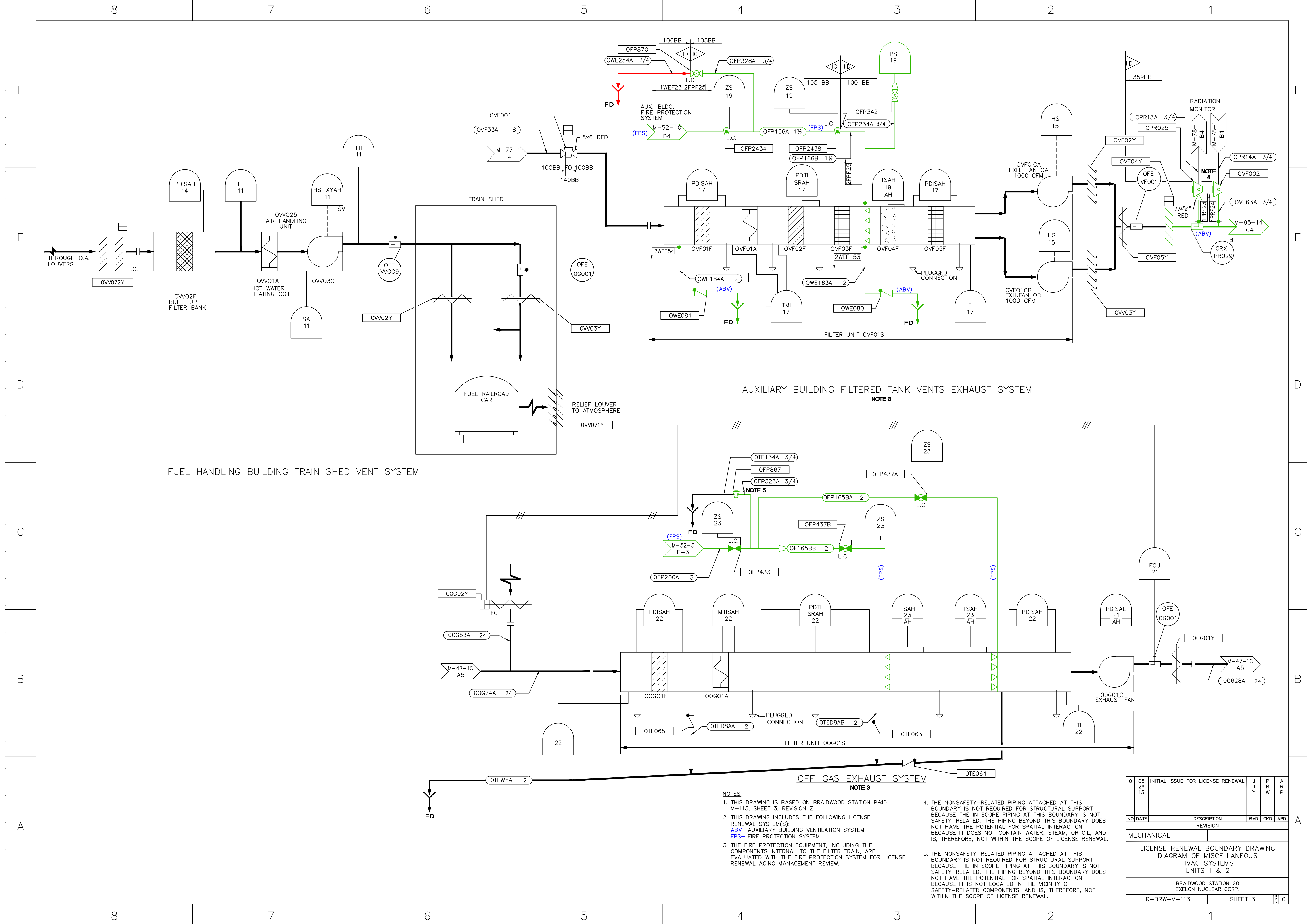
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
	29		J	R	R
	13		Y	W	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF INTEGRATED LEAK RATE					
TEST SYSTEM					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-105		SHEET 3			0



- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-106, SHEET 1, REVISION BD.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVS- CONTAINMENT VENTILATION SYSTEM  
 FPS- FIRE PROTECTION SYSTEM
  - THE NONSAFETY-RELATED DUCTWORK ATTACHED AT THIS BOUNDARY IS NOT REQUIRED TO PROVIDE STRUCTURAL SUPPORT FOR THE SAFETY-RELATED PIPING. THE CREDITED SEISMIC SUPPORTS ARE LOCATED ON THE SAFETY-RELATED PIPING. THE DUCTWORK BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  - THE NORMAL CONTAINMENT PURGE HOT WATER HEATING COIL CONSISTS OF HEATING COILS LOCATED IN THE HVAC HOUSING. THE HEATING COILS ARE EVALUATED WITH THE HEATING WATER AND HEATING STEAM SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
  - THE DEBRIS SCREEN IS INCLUDED WITH THE COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE NONSAFETY-RELATED TUBING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN-SCOPE COMPONENT AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE TUBING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL, AND IS, THEREFORE, NOT IN SCOPE.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		Y	R	R
				W	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF CONTAINMENT PRUGE/PRESSURE					
& VACUUM RELIEF SYSTEMS (VQ), (VP)					
UNIT 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-106		SHEET 1	0		





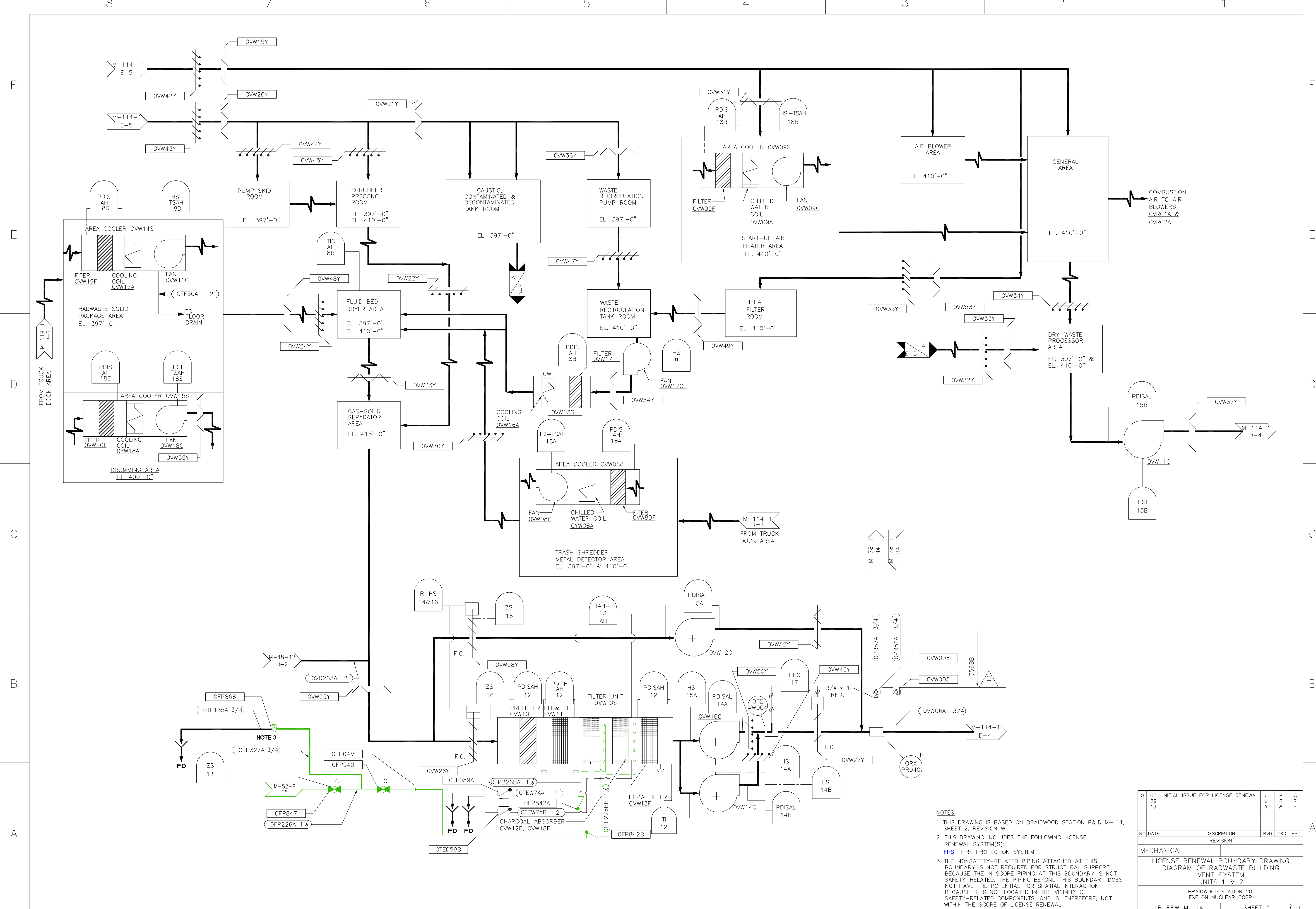
FUEL HANDLING BUILDING TRAIN SHED VENT SYSTEM

AUXILIARY BUILDING FILTERED TANK VENTS EXHAUST SYSTEM

OFF-GAS EXHAUST SYSTEM

- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-113, SHEET 3, REVISION Z.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 FPS- FIRE PROTECTION SYSTEM
  3. THE FIRE PROTECTION EQUIPMENT, INCLUDING THE COMPONENTS INTERNAL TO THE FILTER TRAIN, ARE EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  5. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT IS NOT LOCATED IN THE VICINITY OF SAFETY-RELATED COMPONENTS, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	J J Y	P R W	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF MISCELLANEOUS HVAC SYSTEMS				
UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-113		SHEET 3		0

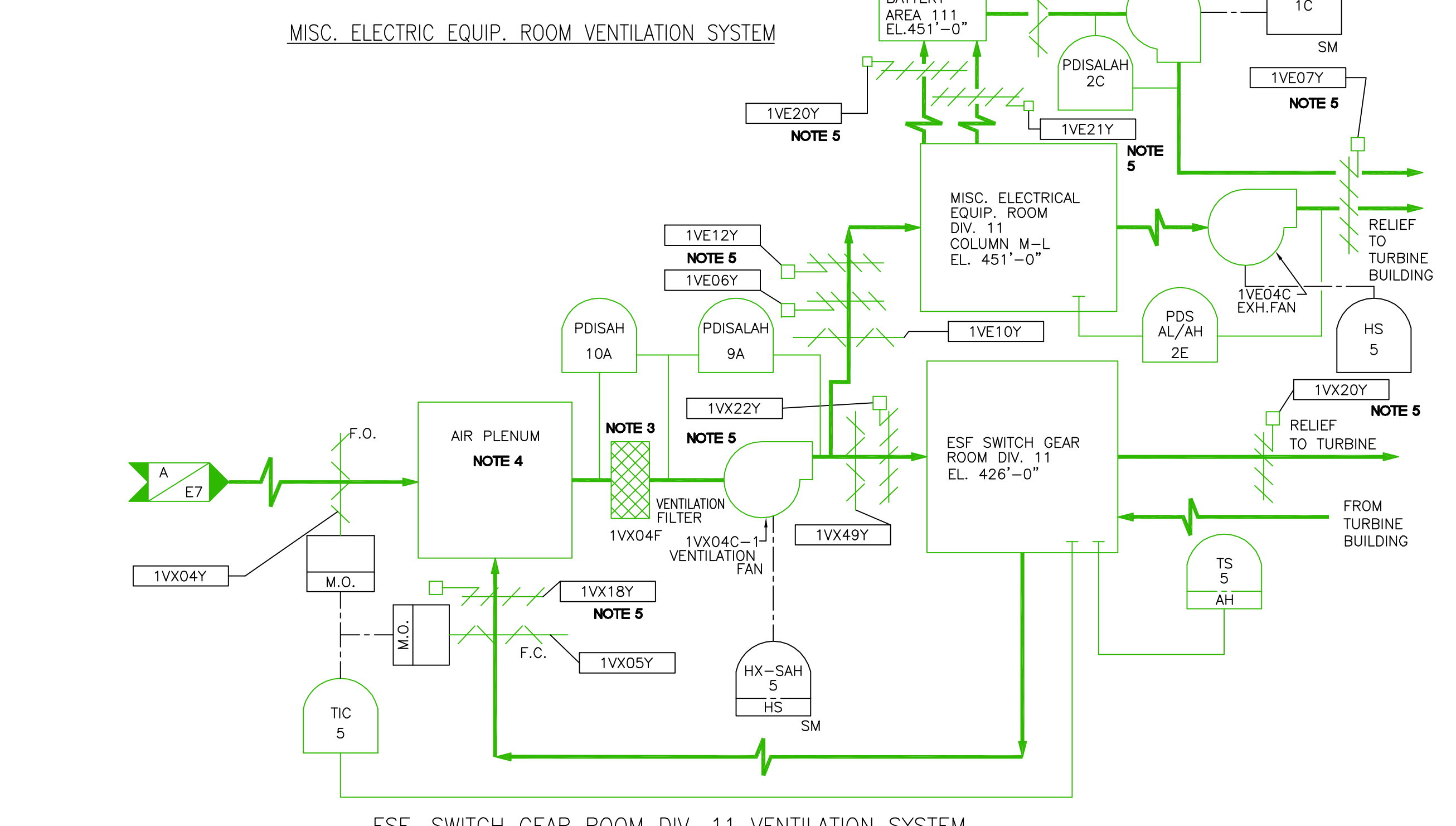
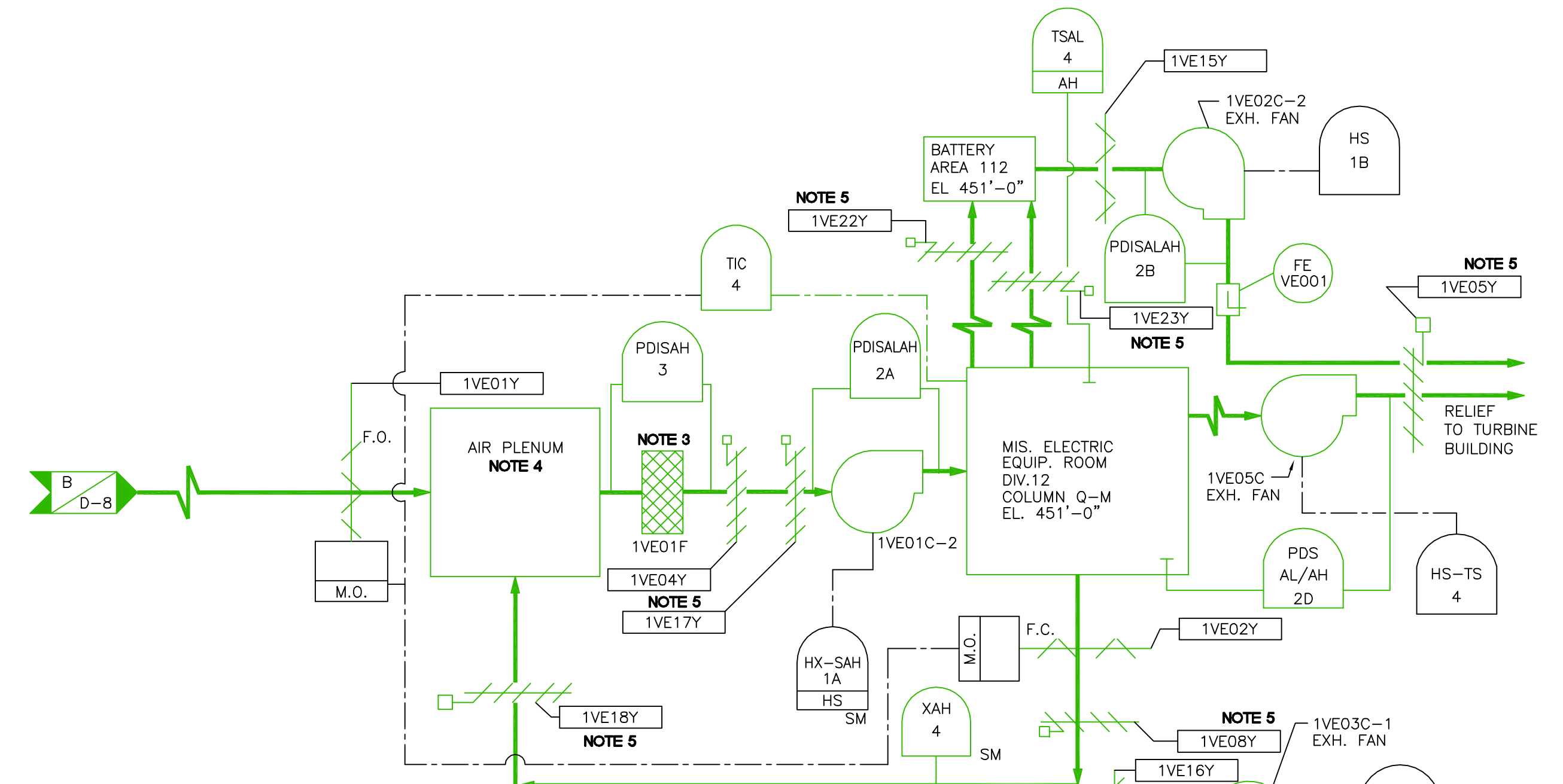
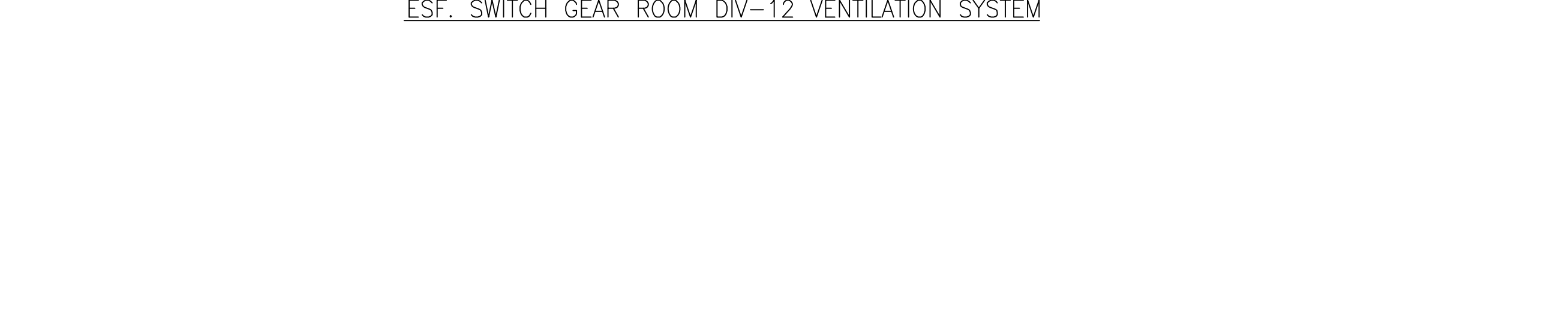
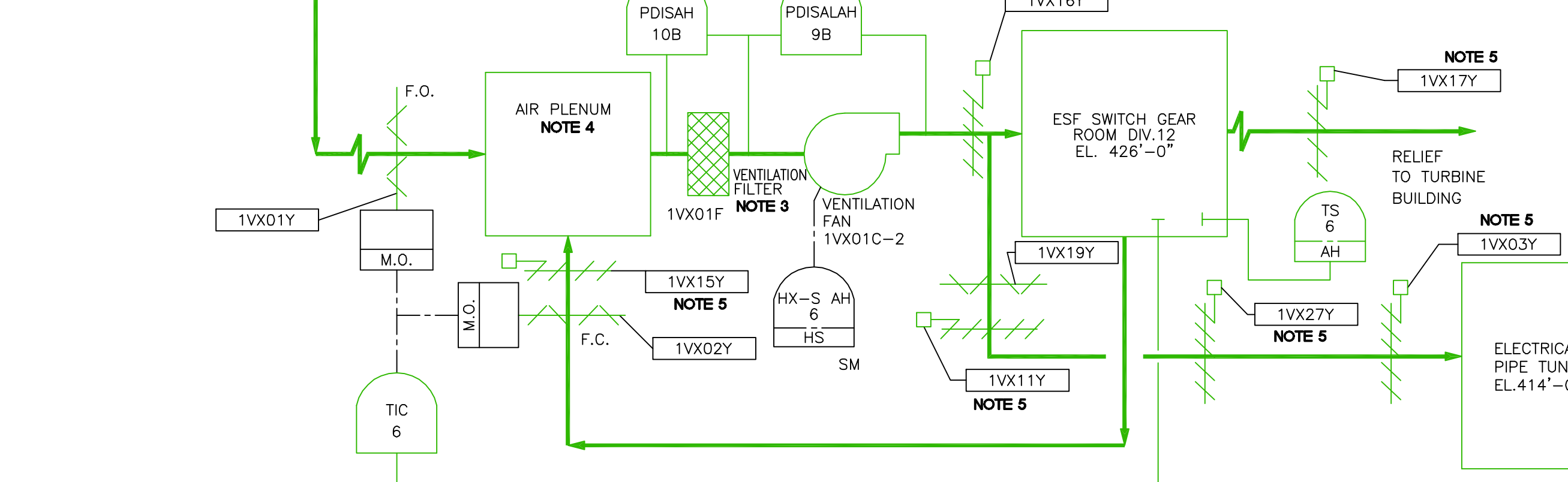
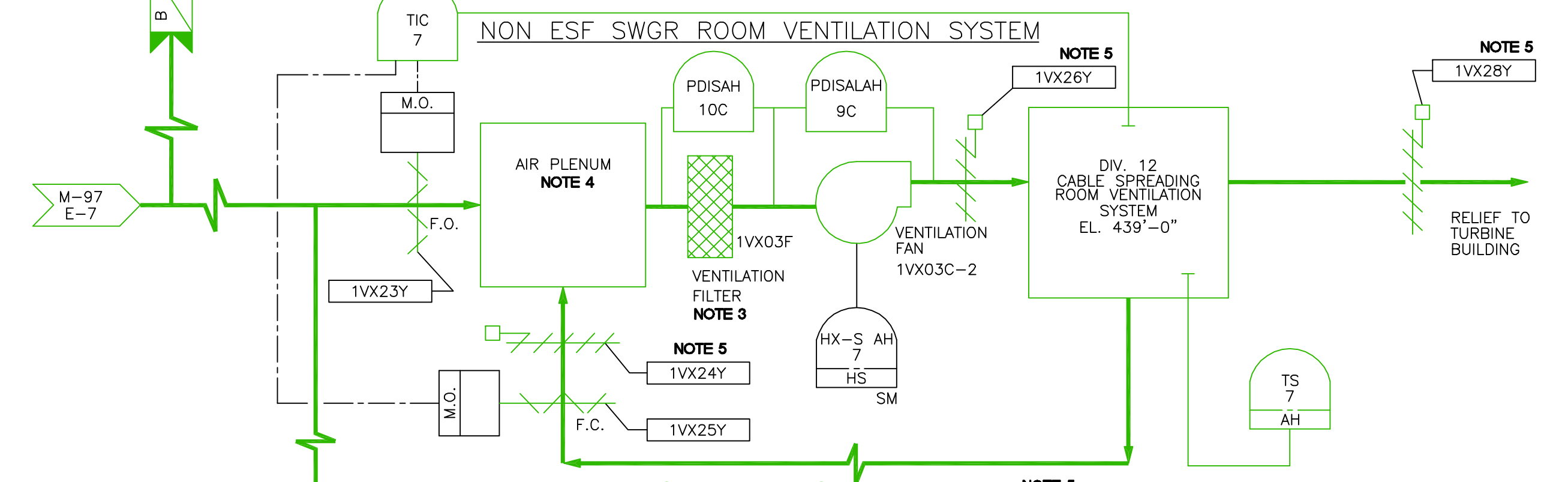
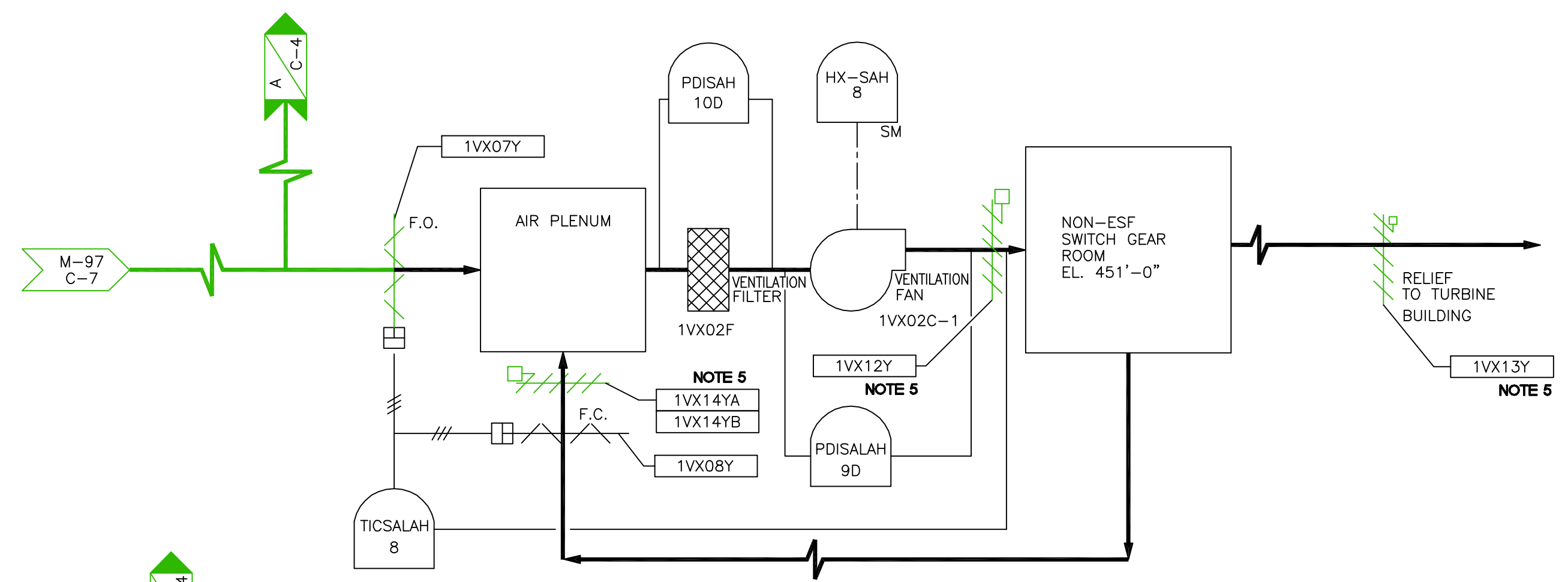


NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-114, SHEET 2, REVISION W.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
FPS - FIRE PROTECTION SYSTEM
3. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT IS NOT LOCATED IN THE VICINITY OF SAFETY-RELATED COMPONENTS, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

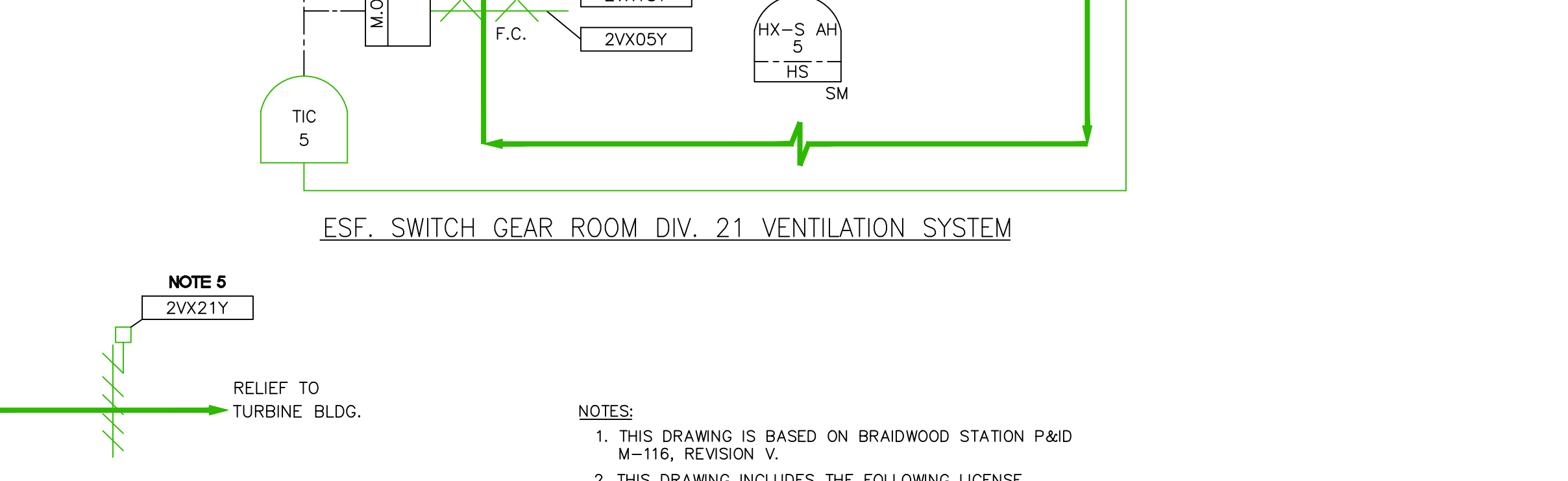
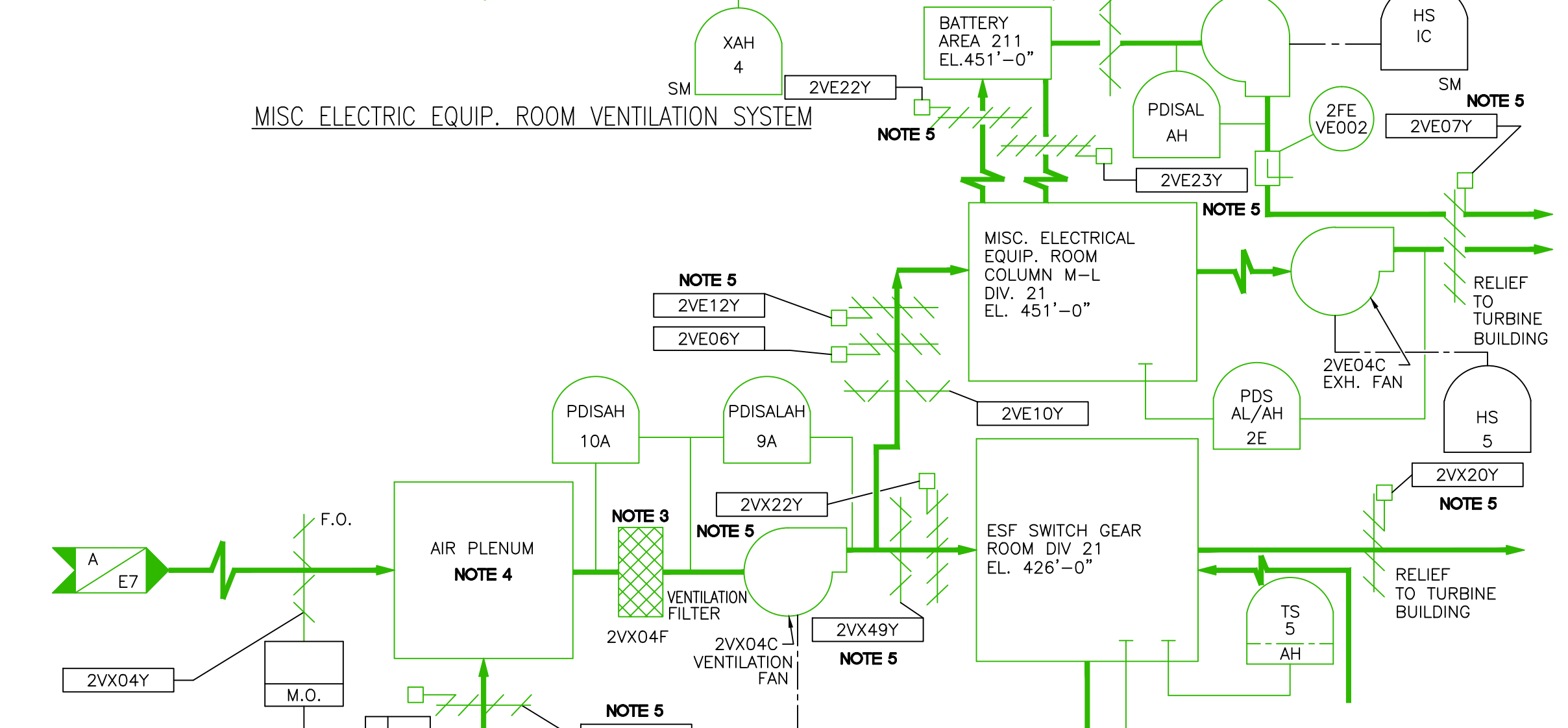
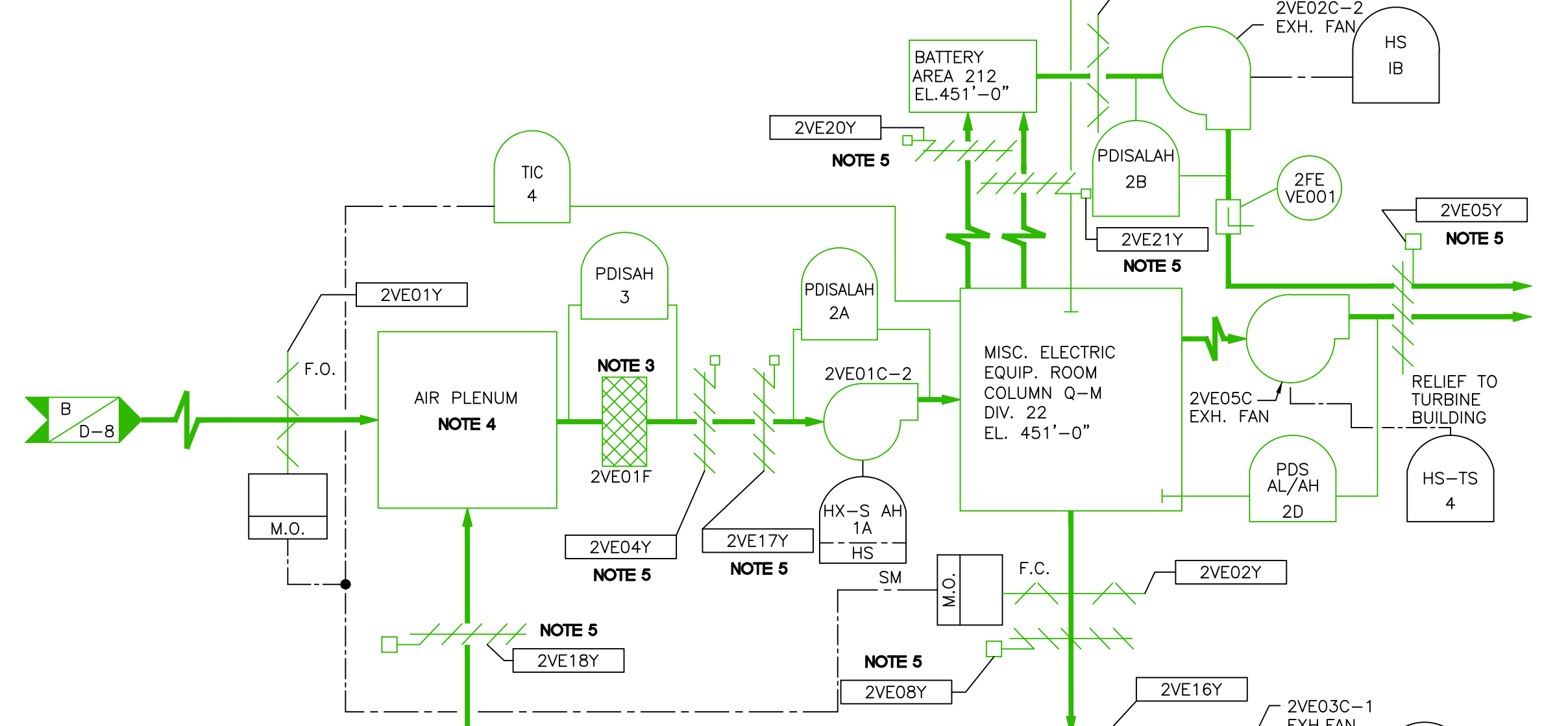
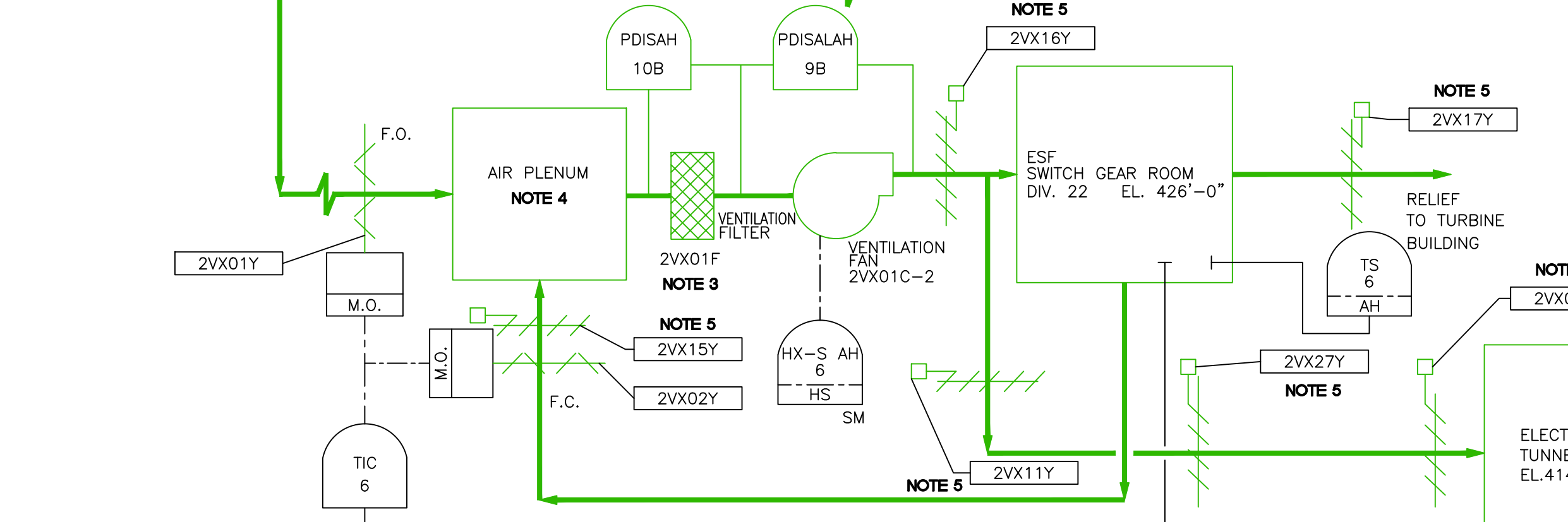
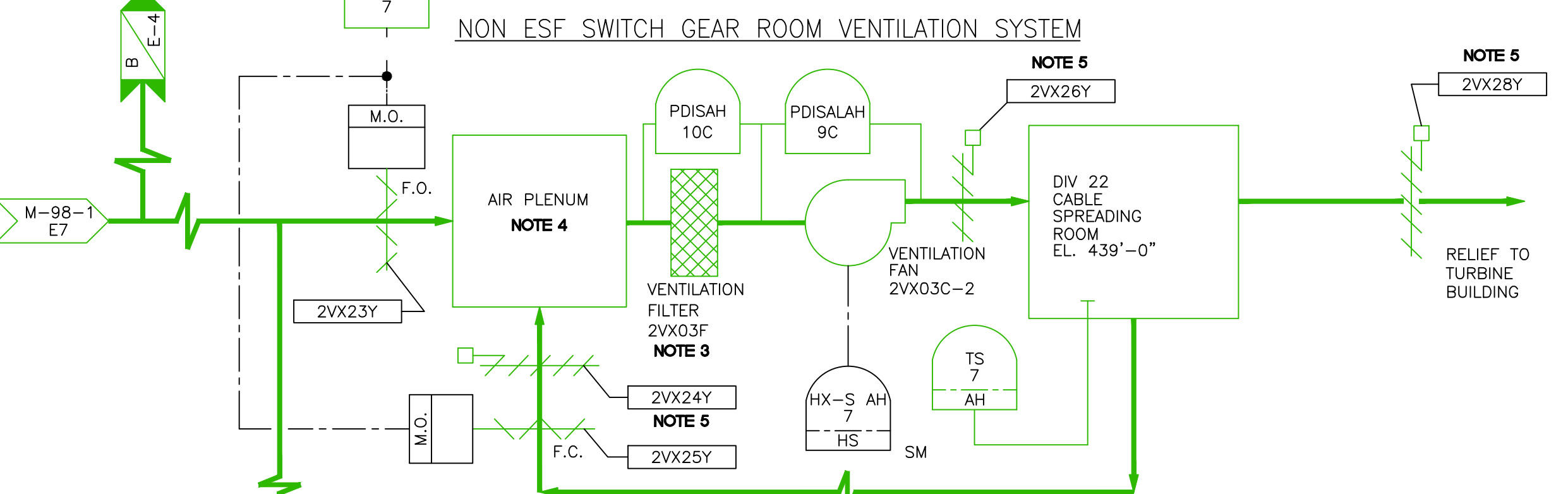
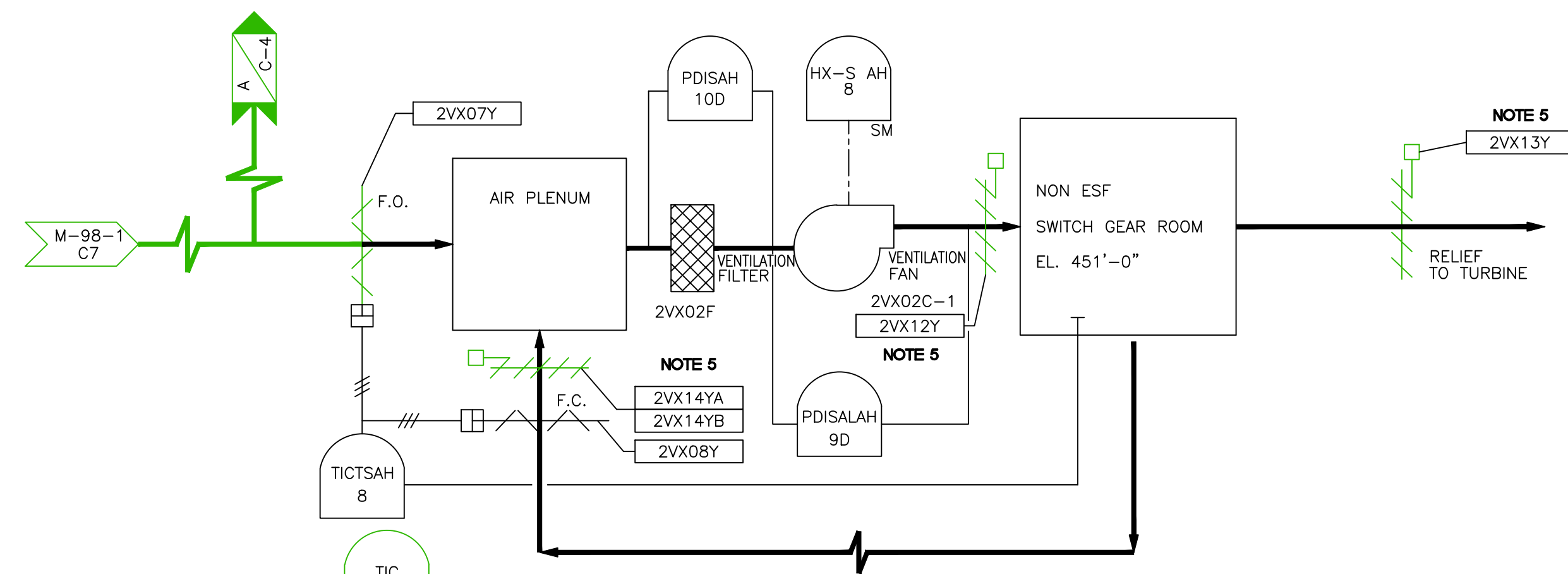
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
		J	R	R
		Y	W	P
NO. DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF RADWASTE BUILDING				
VENT SYSTEM				
UNITS 1 & 2				
BRAIDWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-114	SHEET 2			0





- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-115, SHEET 1, REVISION V.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
ABV- AUXILIARY BUILDING VENTILATION SYSTEM
  - FILTER MEDIA IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE AIR PLENUM IS INCLUDED WITH COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - GRILLES AND REGISTERS ARE INCLUDED WITH COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

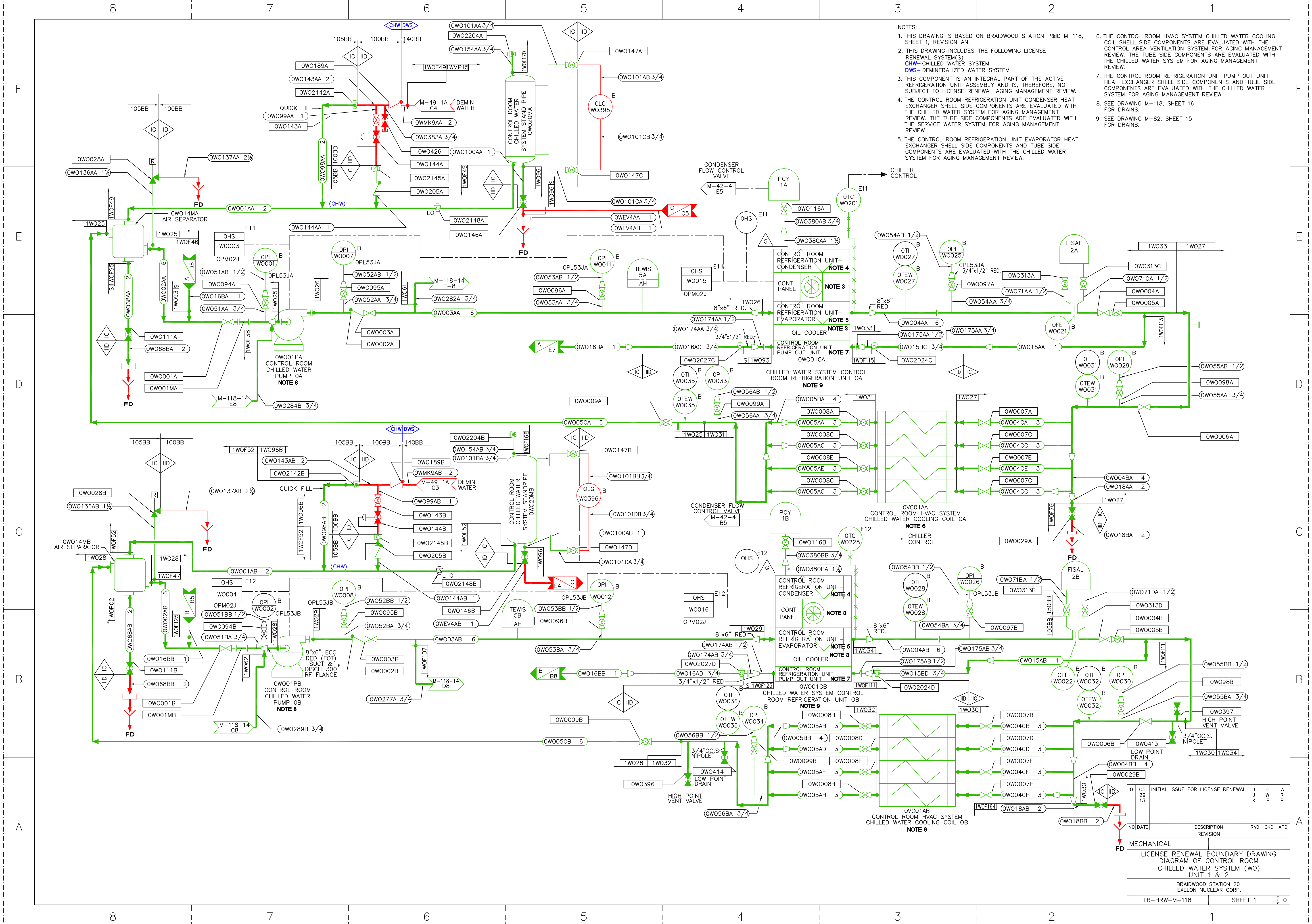
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		J	R	R
13			Y	W	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF ESSENTIAL AND NON-ESSENTIAL SWITCHGEAR, MISC. ELECT. EQUIP. ROOM VENTILATION SYSTEM UNIT 1					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-115 SHEET 1 0					



- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-116, REVISION V.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
ABV - AUXILIARY BUILDING VENTILATION SYSTEM
  3. FILTER MEDIA IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE AIR PLENUM IS INCLUDED WITH COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  5. THE FIRE BARRIER FUNCTION FOR ALL FIRE DAMPERS IS EVALUATED WITH THE FIRE PROTECTION SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  6. GRILLES AND REGISTERS ARE EVALUATED AS COMPONENT TYPE "DUCTING AND COMPONENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  7. STRUCTURAL ELEMENTS (e.g., ROOMS) LOCATED WITHIN THE IN SCOPE FLOW PATH ARE SHOWN AS IN SCOPE FOR SIMPLICITY. THESE STRUCTURAL COMPONENTS ARE EVALUATED WITH THE ASSOCIATED STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29	13		J	R	R
13			Y	W	P
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF ESS, & NON-ESS, SWITCH GEAR					
MISC. ELEC. EQUIP. RM. VENTILATION SYSTEM					
UNIT 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-116		SHEET 1	0		

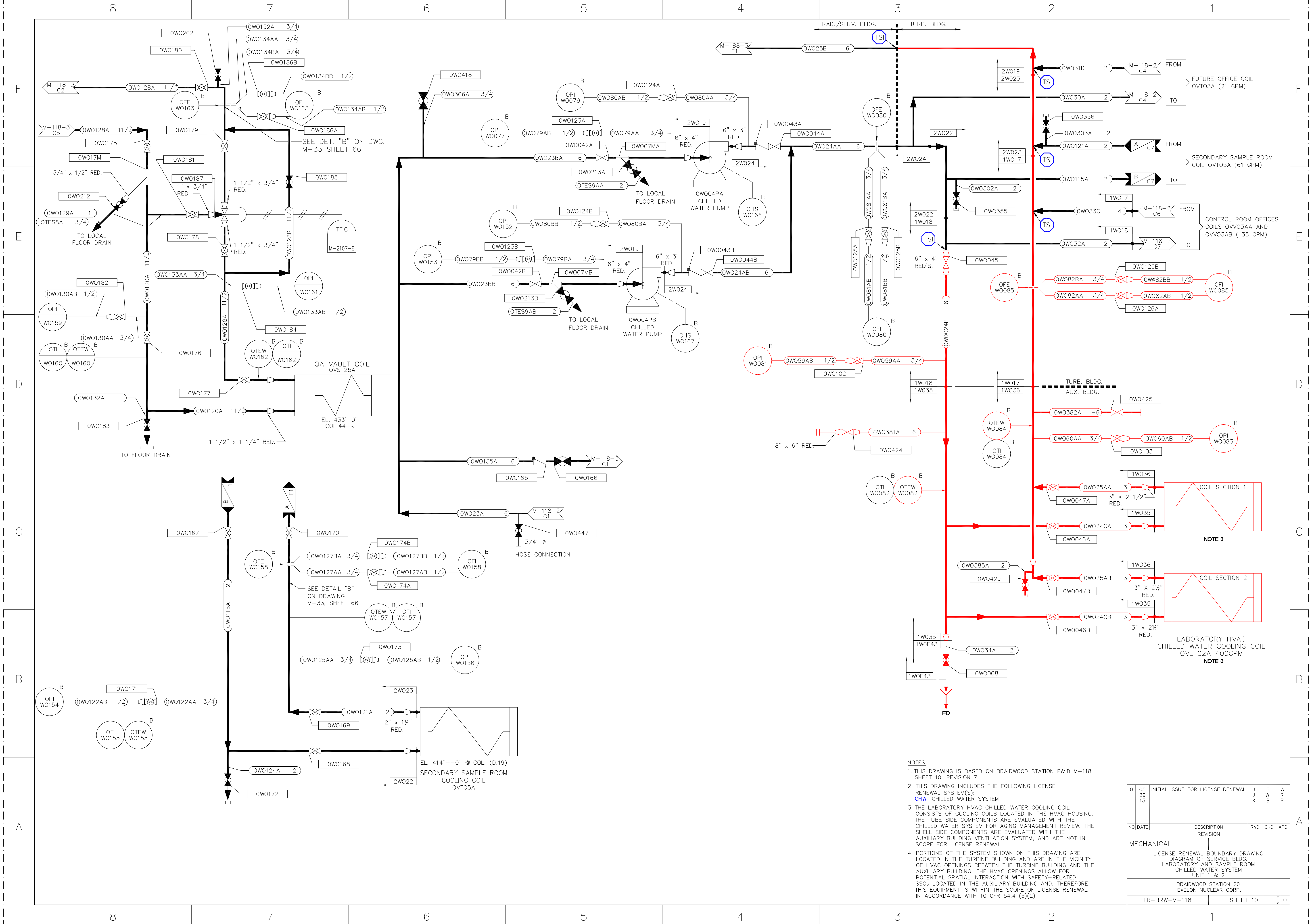




- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-118, SHEET 1, REVISION AN.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CHW- CHILLED WATER SYSTEM  
 DWS- DEMINERALIZED WATER SYSTEM
  3. THIS COMPONENT IS AN INTEGRAL PART OF THE ACTIVE REFRIGERATION UNIT ASSEMBLY AND IS, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE CONTROL ROOM REFRIGERATION UNIT CONDENSER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  5. THE CONTROL ROOM REFRIGERATION UNIT EVAPORATOR HEAT EXCHANGER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  6. THE CONTROL ROOM HVAC SYSTEM CHILLED WATER COOLING COIL SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTROL AREA VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  7. THE CONTROL ROOM REFRIGERATION UNIT PUMP OUT UNIT HEAT EXCHANGER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  8. SEE DRAWING M-118, SHEET 16 FOR DRAINS.
  9. SEE DRAWING M-82, SHEET 15 FOR DRAINS.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A	R
					K	W	B	P
NO DATE	DESCRIPTION			RVD	CKD	APD		
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF CONTROL ROOM								
CHILLED WATER SYSTEM (WO)								
UNIT 1 & 2								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-118				SHEET 1		0		

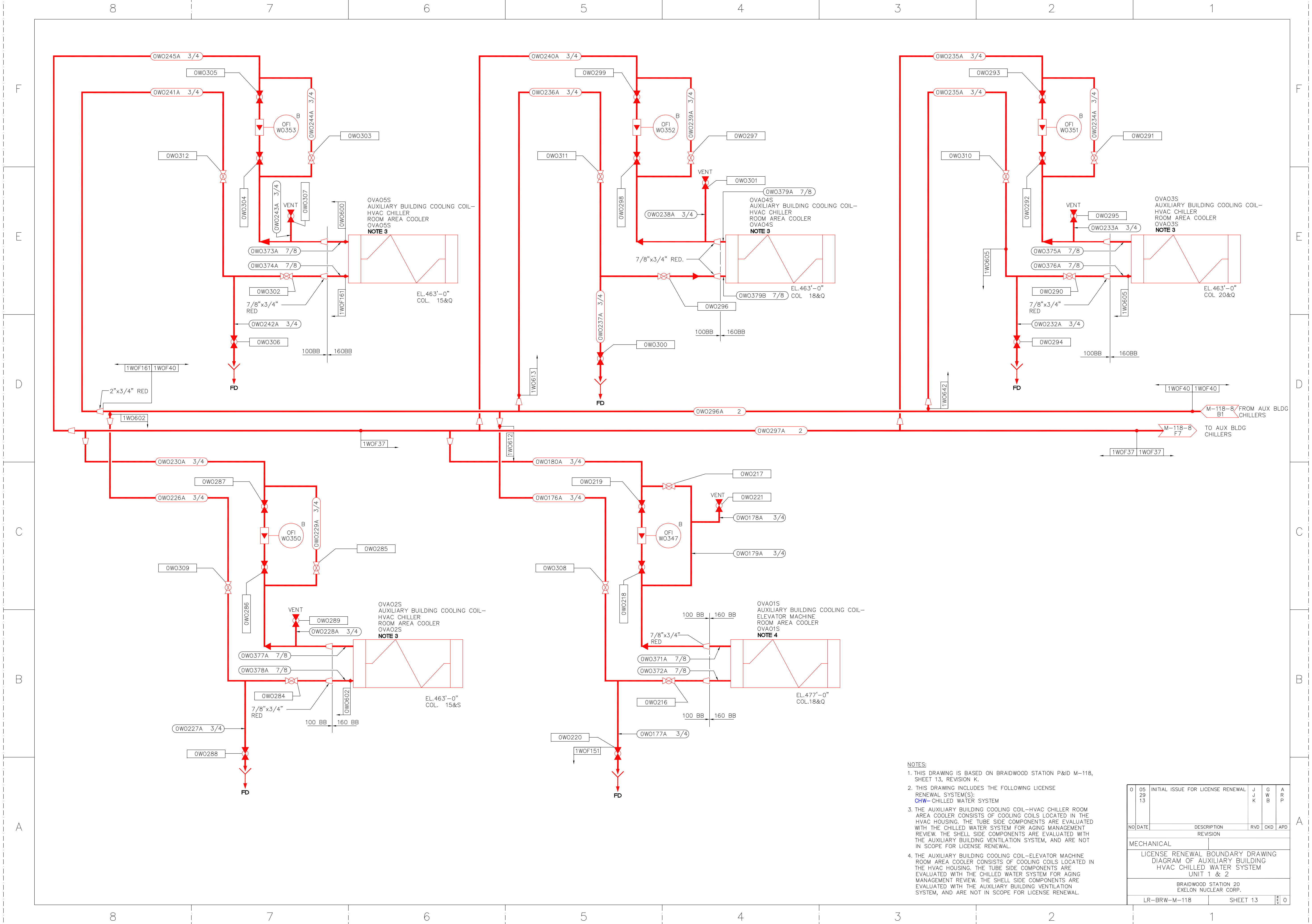




- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-118, SHEET 10, REVISION Z.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CHW - CHILLED WATER SYSTEM
  - THE LABORATORY HVAC CHILLED WATER COOLING COIL CONSISTS OF COOLING COILS LOCATED IN THE HVAC HOUSING. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
  - PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (e)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
29	13		K	W	R
				B	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF SERVICE BLDG. LABORATORY AND SAMPLE ROOM CHILLED WATER SYSTEM UNIT 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-118		SHEET 10		0	

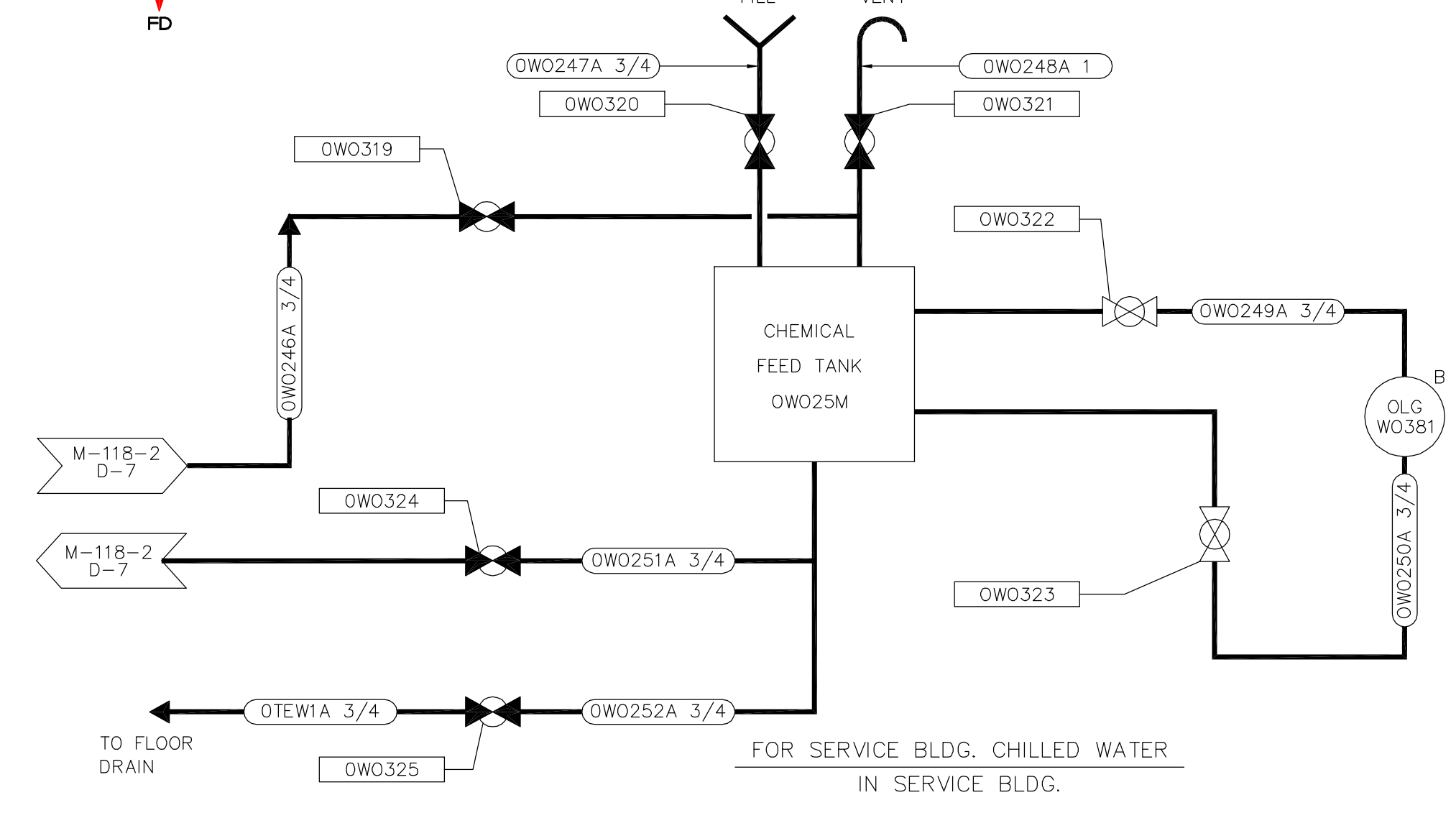
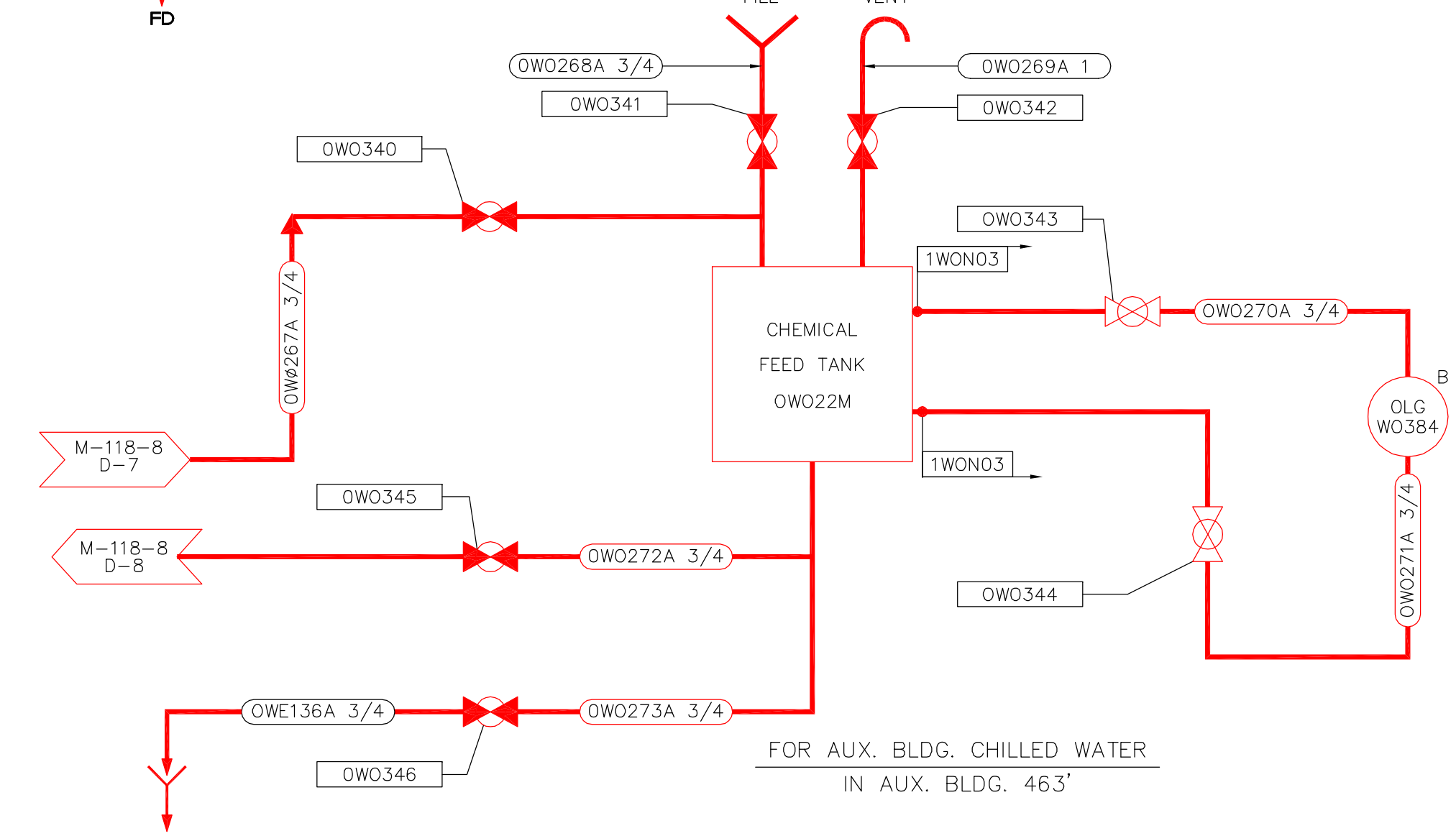
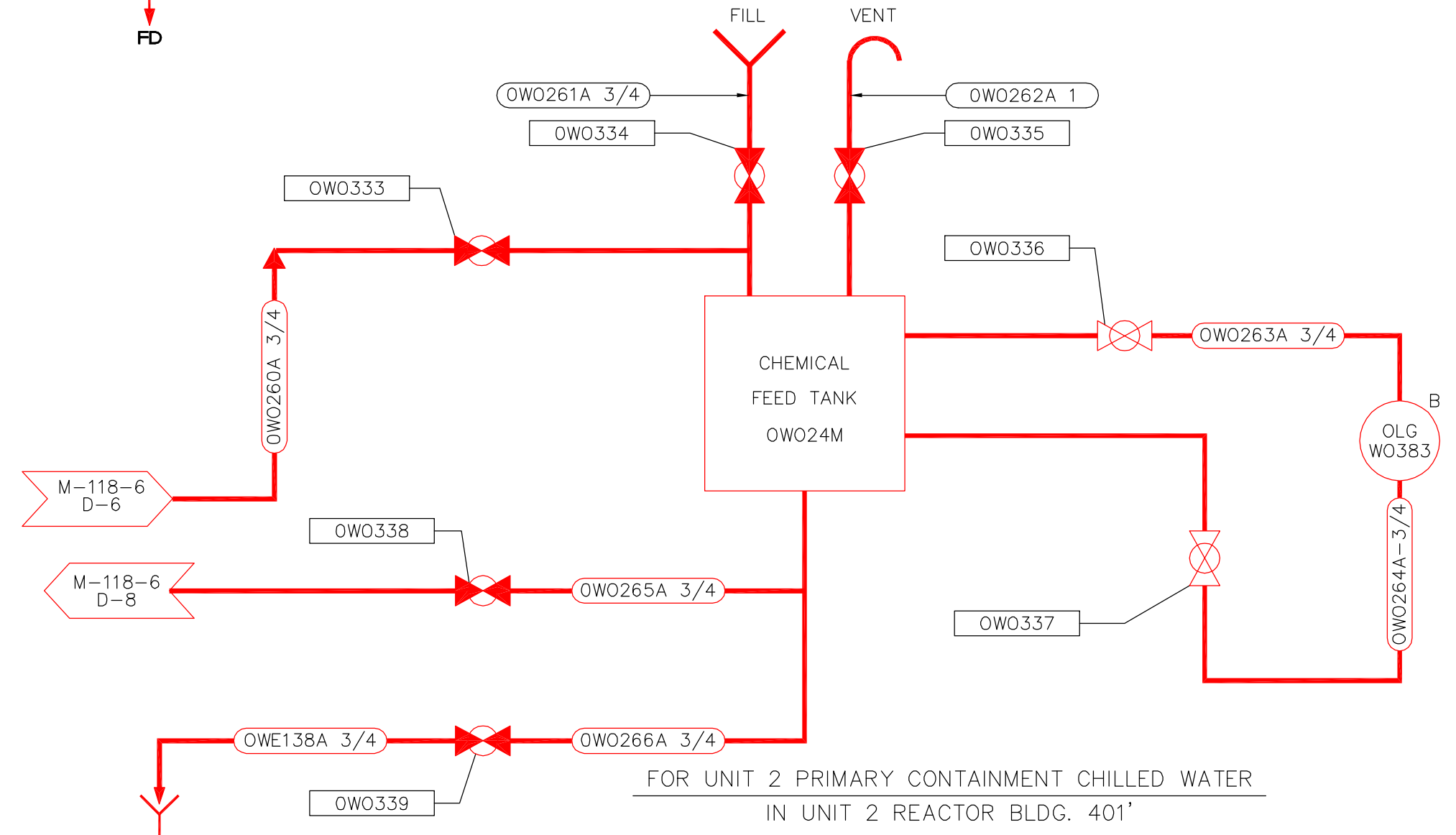
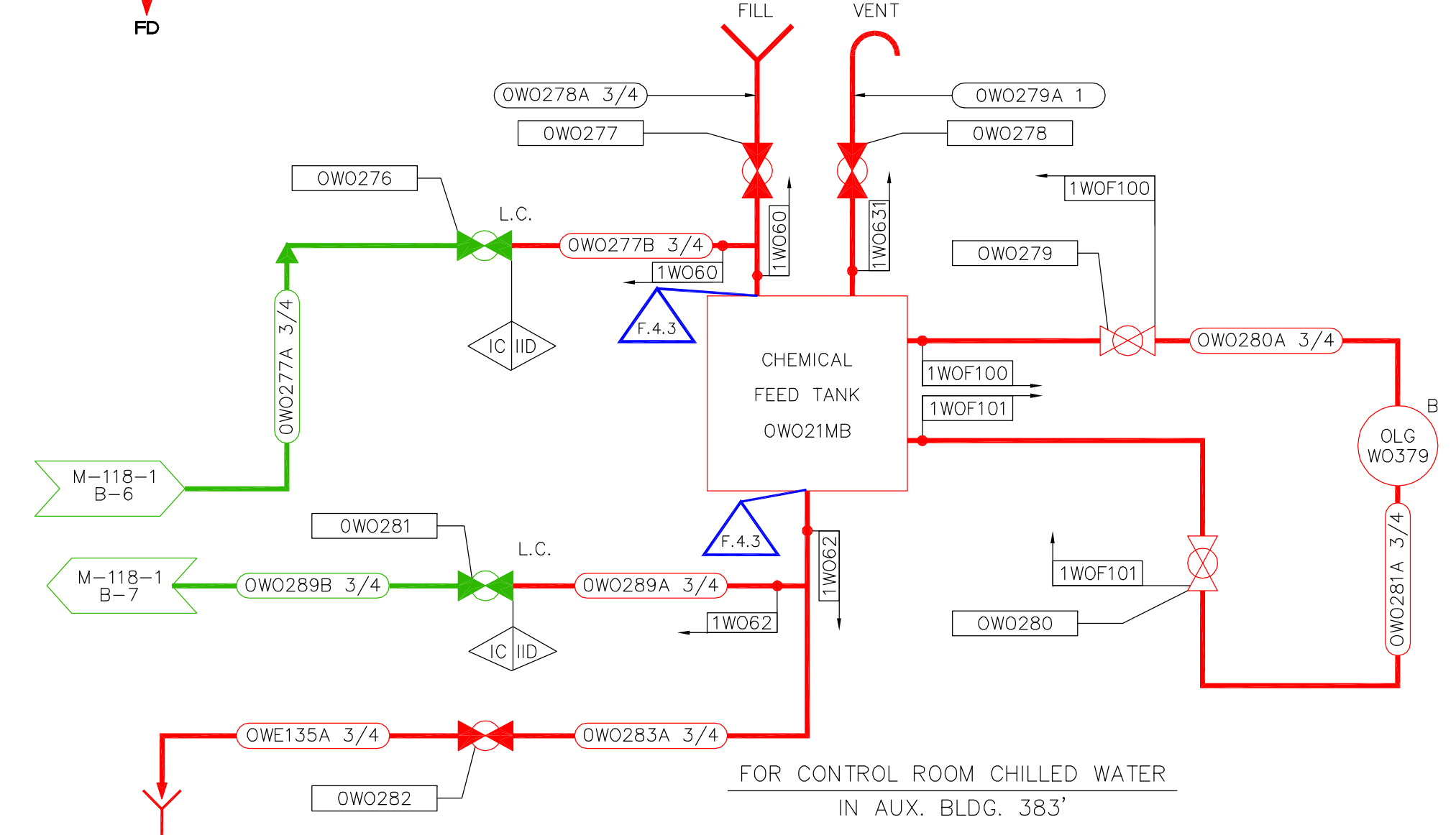
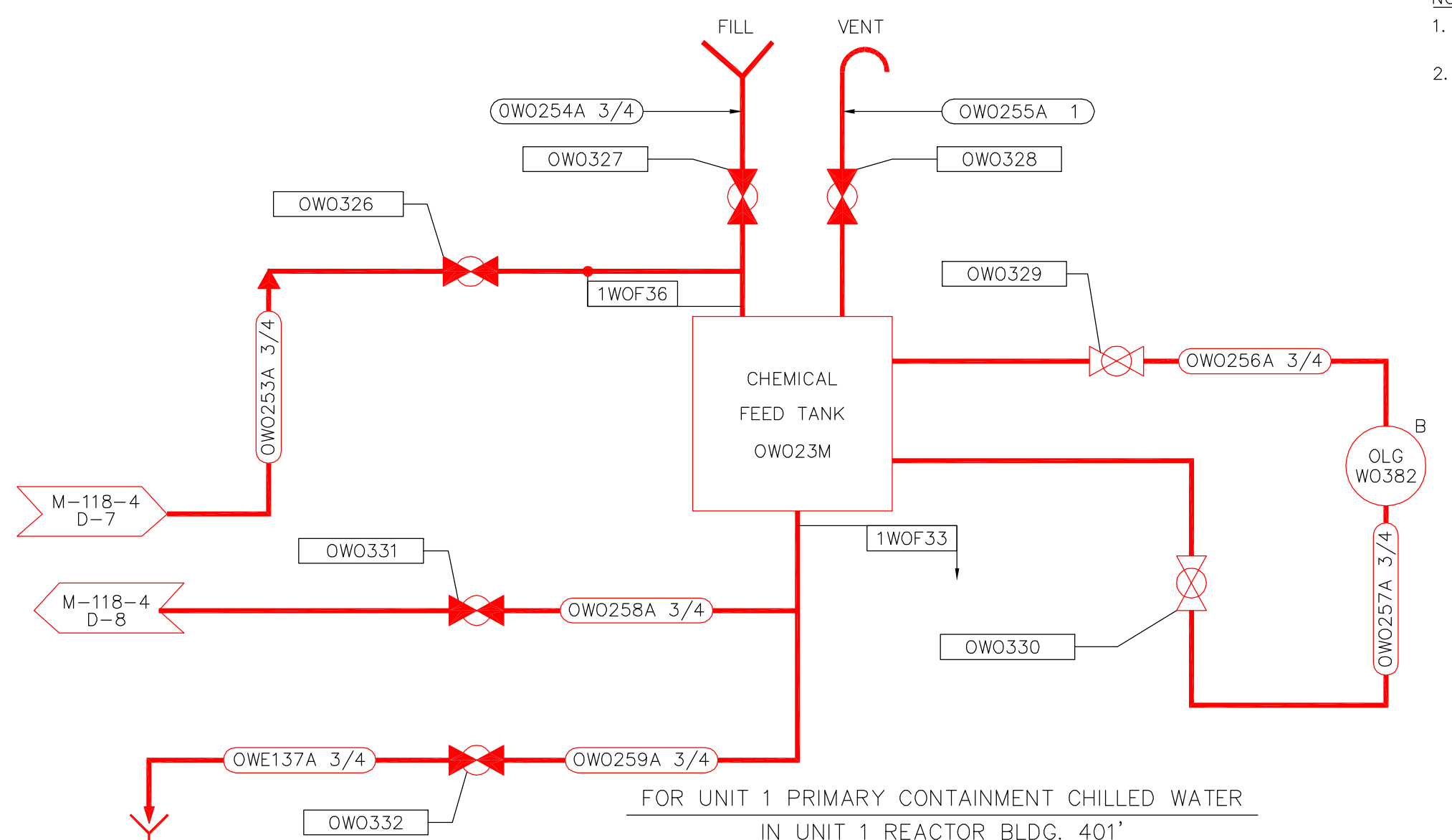
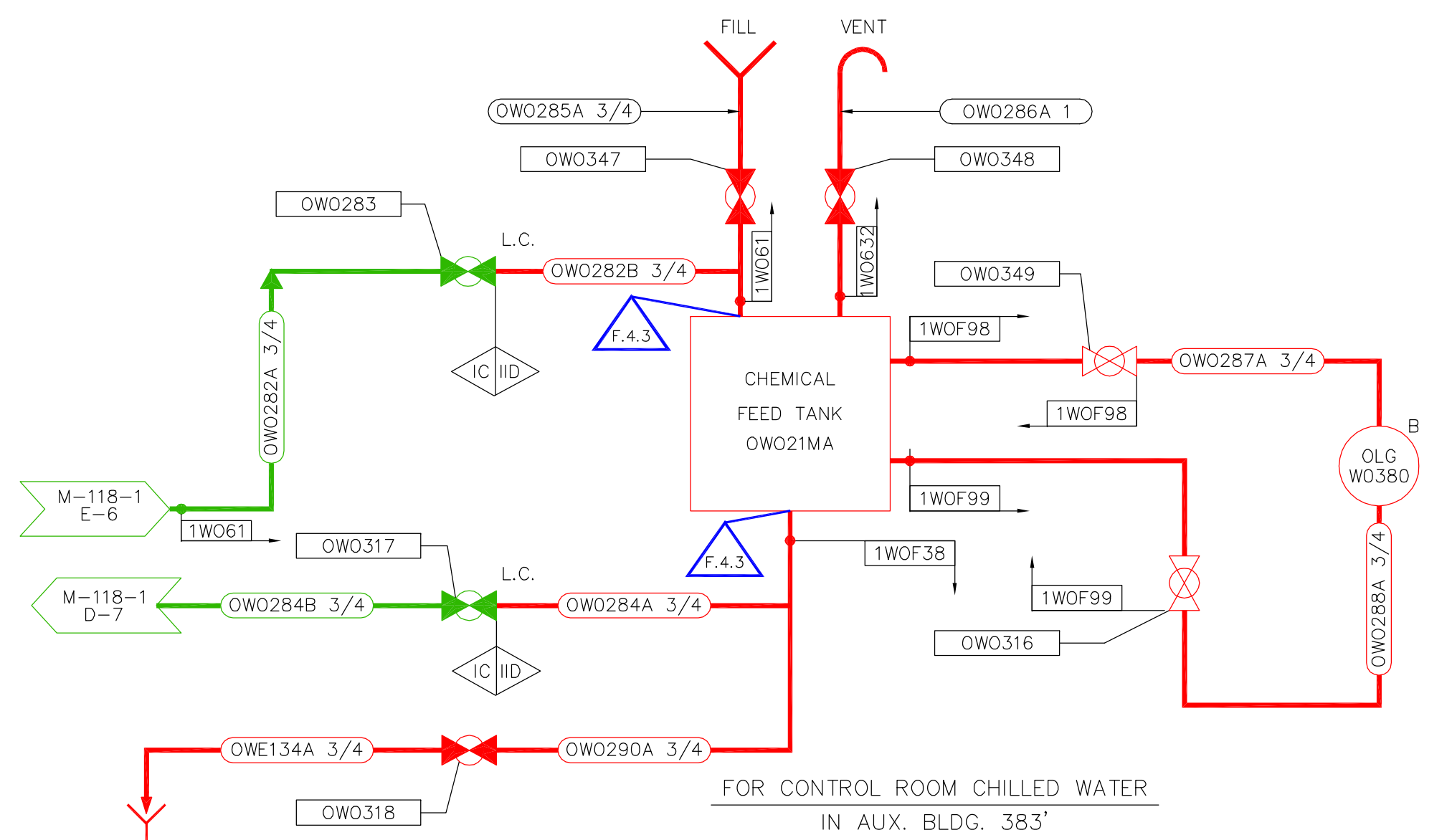




- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-118, SHEET 13, REVISION K.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
**CHW**—CHILLED WATER SYSTEM
  3. THE AUXILIARY BUILDING COOLING COIL—HVAC CHILLER ROOM AREA COOLER CONSISTS OF COOLING COILS LOCATED IN THE HVAC HOUSING. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
  4. THE AUXILIARY BUILDING COOLING COIL—ELEVATOR MACHINE ROOM AREA COOLER CONSISTS OF COOLING COILS LOCATED IN THE HVAC HOUSING. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.

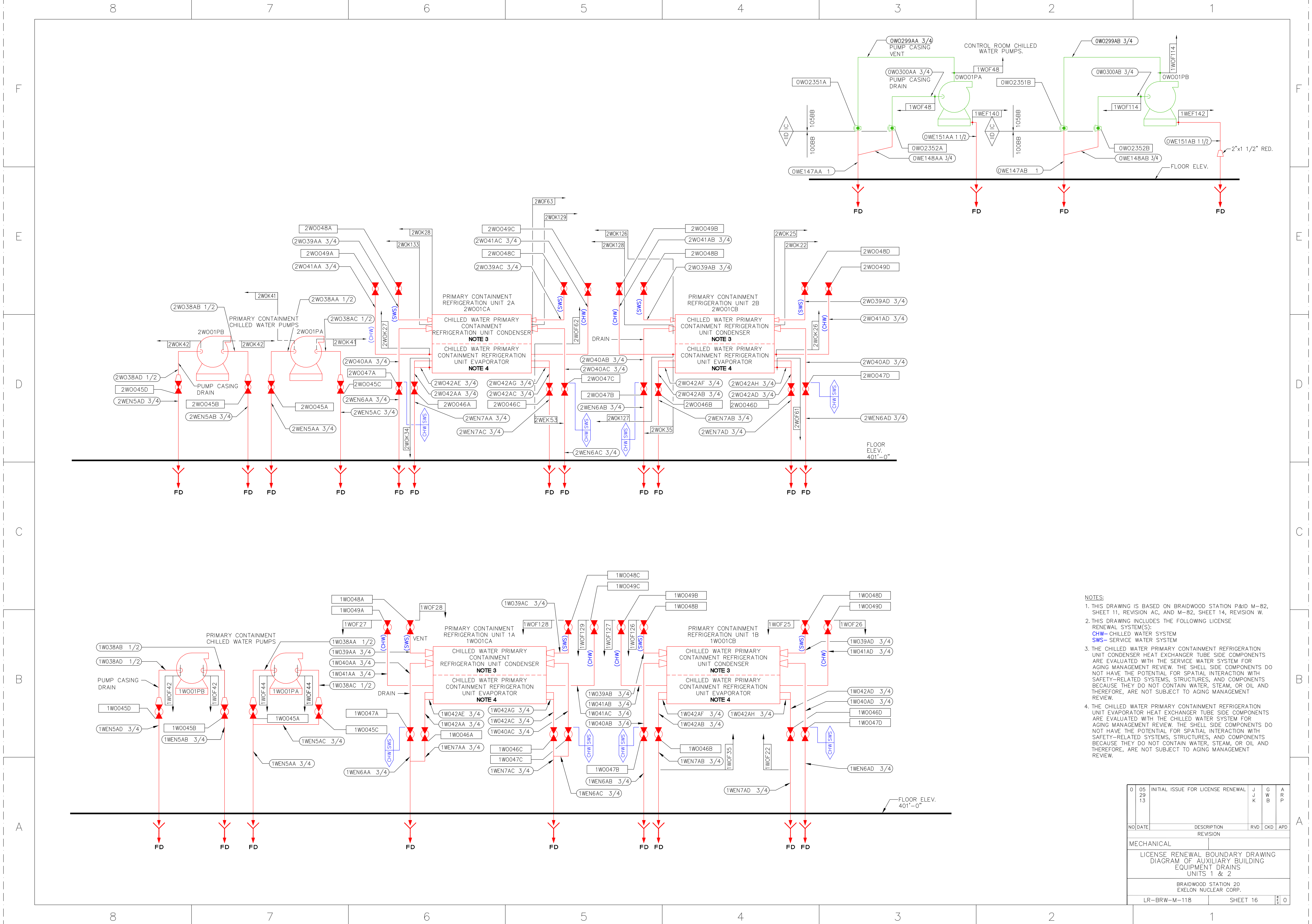
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
29	13		K	B	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF AUXILIARY BUILDING					
HVAC CHILLED WATER SYSTEM					
UNIT 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-118		SHEET 13		0	

- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-118, SHEET 14, REVISION H.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CHW- CHILLED WATER SYSTEM



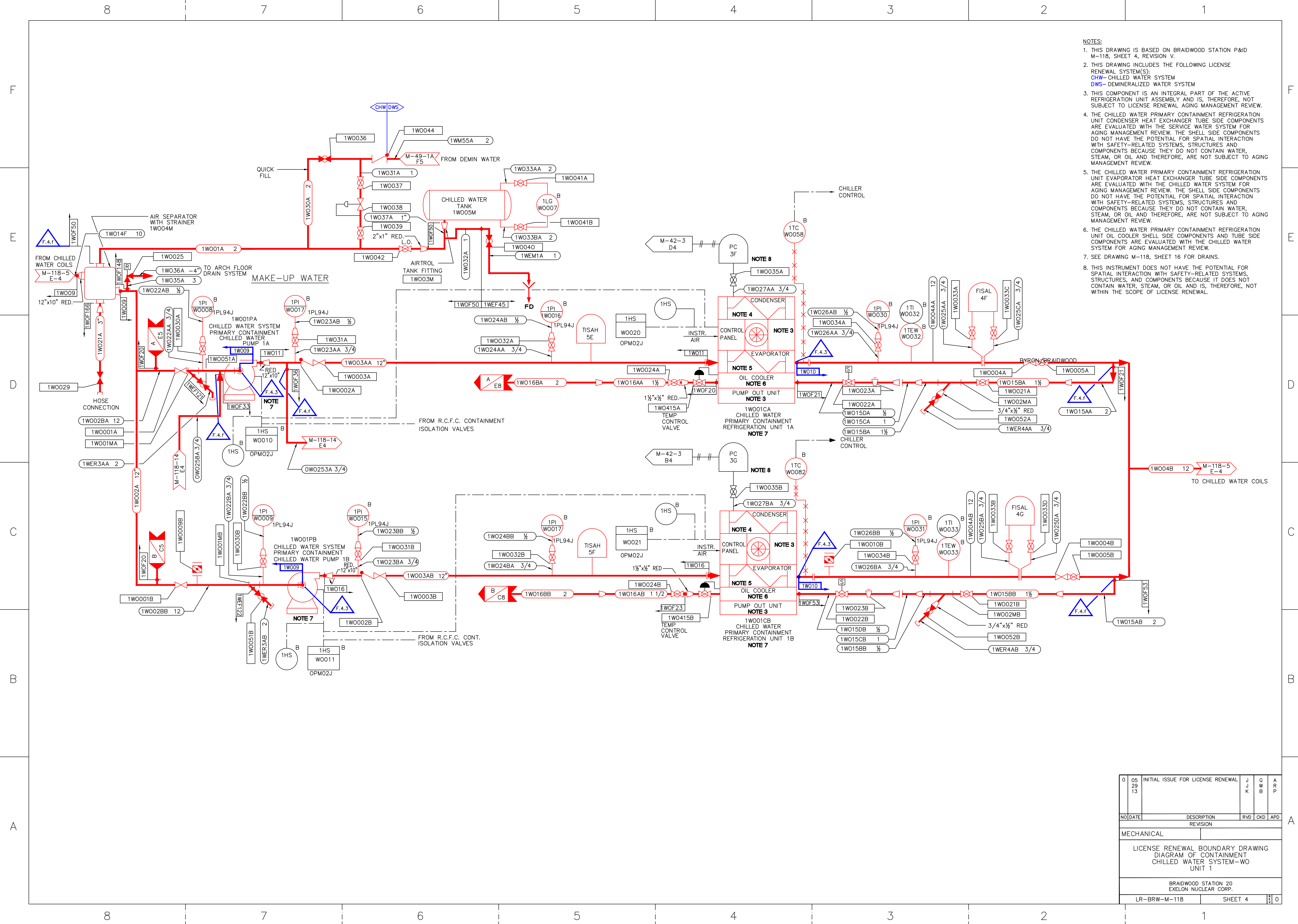
0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
					K	W	R
						B	P
NO	DATE	DESCRIPTION			RVD	CKD	APD
REVISION							
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING							
DIAGRAM OF AUXILIARY BUILDING							
CHILLED WATER (WO)							
UNITS 1 & 2							
BRAIDWOOD STATION 20							
EXELON NUCLEAR CORP.							
LR-BRW-M-118				SHEET 14		0	





- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-82, SHEET 11, REVISION AC, AND M-82, SHEET 14, REVISION W.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CHW- CHILLED WATER SYSTEM  
 SWS- SERVICE WATER SYSTEM
  - THE CHILLED WATER PRIMARY CONTAINMENT REFRIGERATION UNIT CONDENSER HEAT EXCHANGER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - THE CHILLED WATER PRIMARY CONTAINMENT REFRIGERATION UNIT EVAPORATOR HEAT EXCHANGER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.

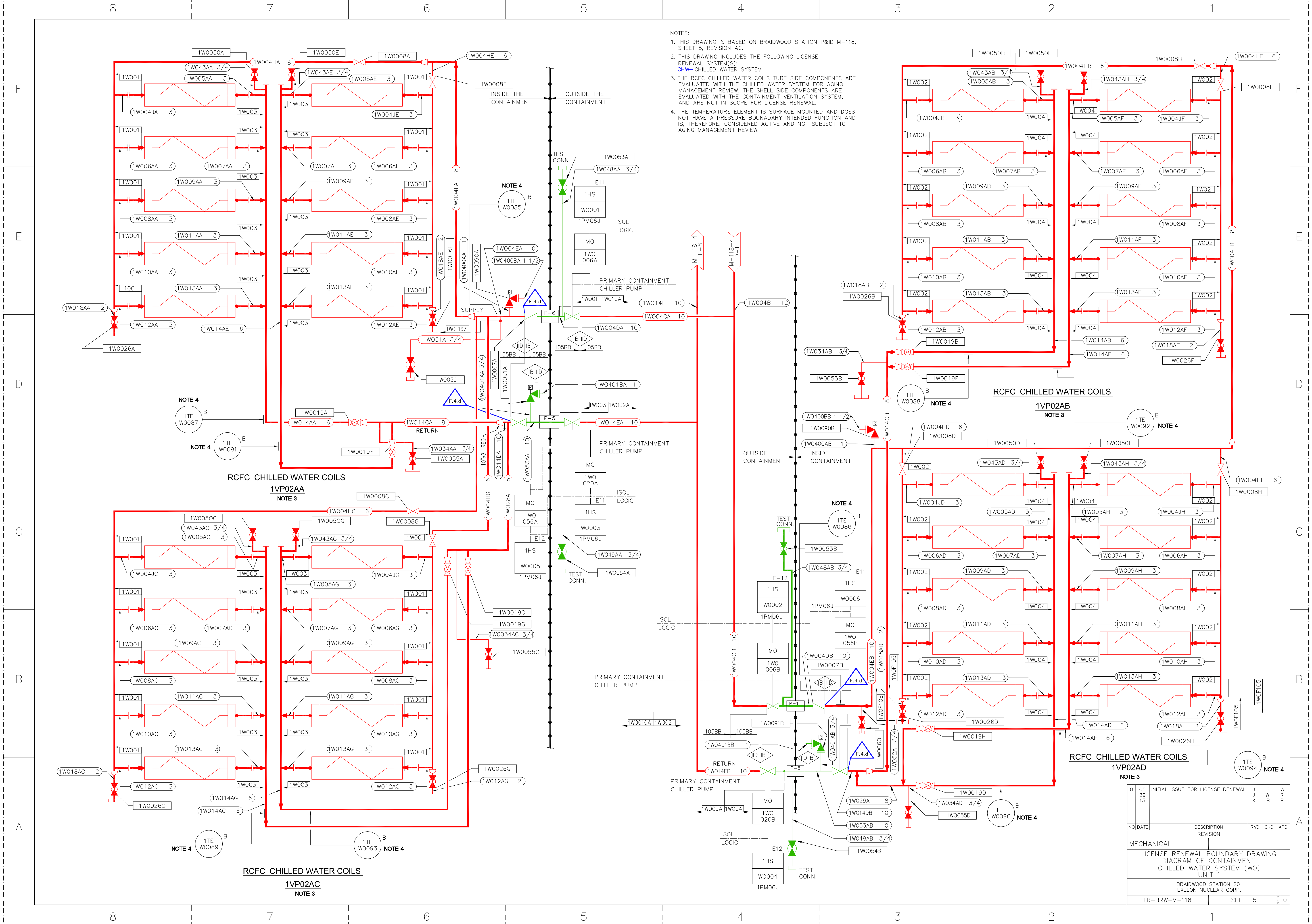
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J K	G B	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF AUXILIARY BUILDING EQUIPMENT DRAINS UNITS 1 & 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-118		SHEET 16		0



- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-118, SHEET 4, REVISION V.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CHW- CHILLED WATER SYSTEM  
 DWS- DEMINERALIZED WATER SYSTEM
  3. THIS COMPONENT IS AN INTEGRAL PART OF THE ACTIVE REFRIGERATION UNIT ASSEMBLY AND IS, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE CHILLED WATER PRIMARY CONTAINMENT REFRIGERATION UNIT CONDENSER HEAT EXCHANGER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  5. THE CHILLED WATER PRIMARY CONTAINMENT REFRIGERATION UNIT EVAPORATOR HEAT EXCHANGER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  6. THE CHILLED WATER PRIMARY CONTAINMENT REFRIGERATION UNIT OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  7. SEE DRAWING M-118, SHEET 16 FOR DRAINS.
  8. THIS INSTRUMENT DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	JJK	GW	ARP
NO/DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CONTAINMENT CHILLED WATER SYSTEM-WO UNIT 1				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-118	SHEET 4	0		





- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-118, SHEET 5, REVISION AC.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CHW- CHILLED WATER SYSTEM
  3. THE RCFC CHILLED WATER COILS TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.
  4. THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

NOTE 4  
 1TE W0087  
 1TE W0091

NOTE 4  
 1TE W0089

NOTE 4  
 1TE W0093

NOTE 4  
 1TE W0085

NOTE 4  
 1TE W0088

NOTE 4  
 1TE W0086

NOTE 4  
 1TE W0086

NOTE 4  
 1TE W0091B

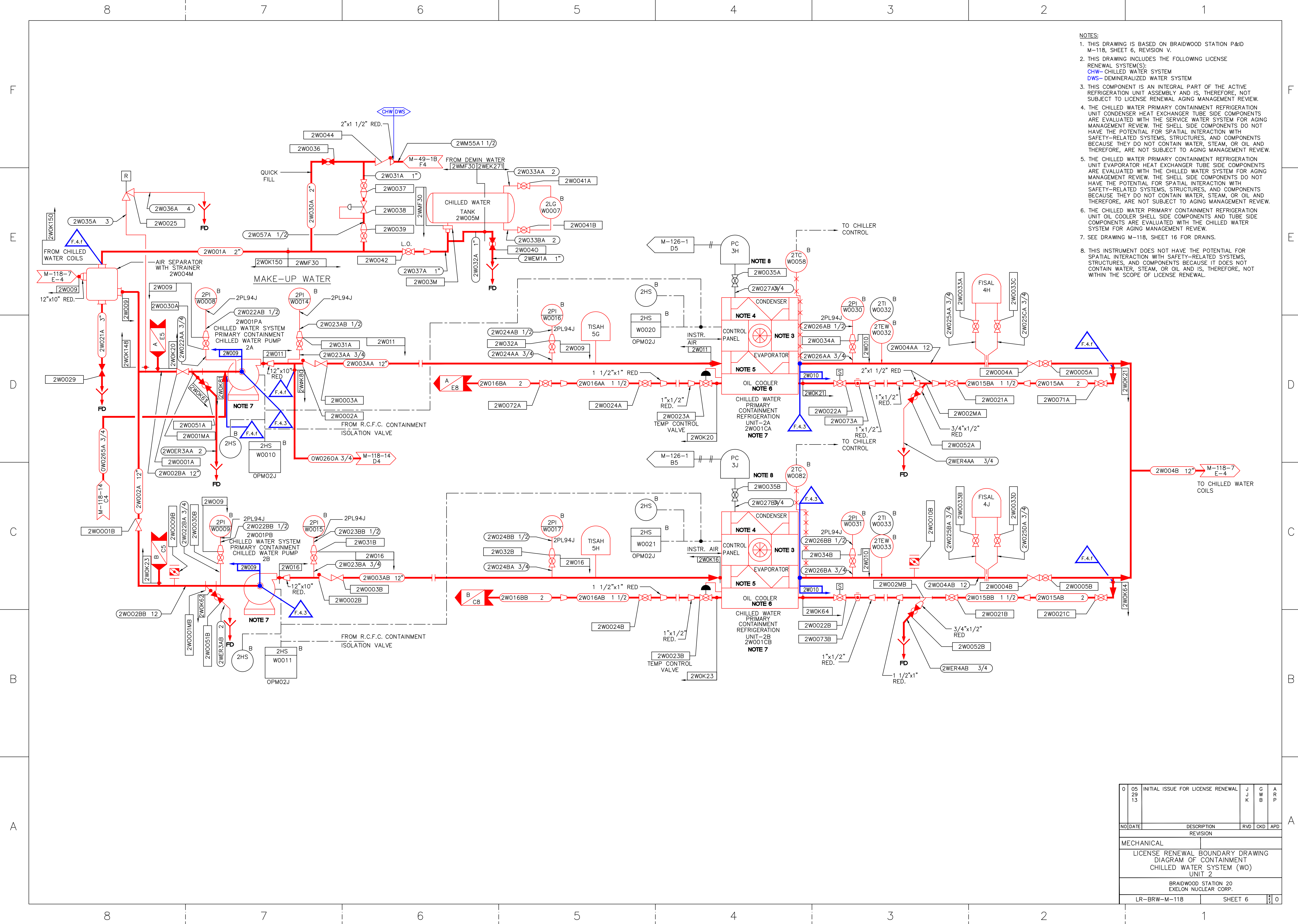
NOTE 4  
 1TE W0090

NOTE 4  
 1TE W0092

NOTE 4  
 1TE W0094

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A	R
					K	W	B	P
NO	DATE	DESCRIPTION			RVD	CKD	APD	
		REVISION						
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF CONTAINMENT								
CHILLED WATER SYSTEM (WO)								
UNIT 1								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-118 SHEET 5								





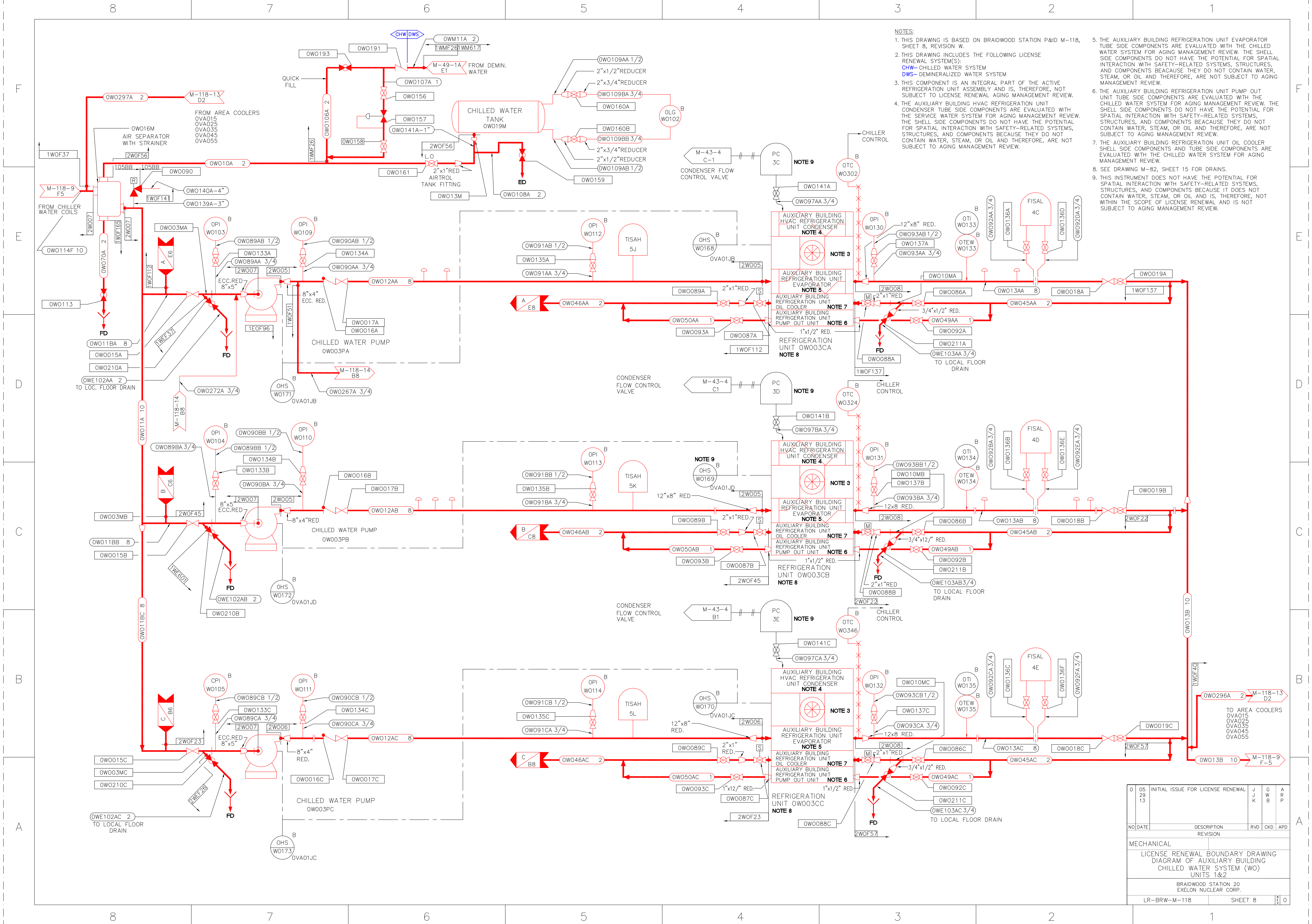
- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-118, SHEET 6, REVISION V.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CHW- CHILLED WATER SYSTEM  
 DWS- DEMINERALIZED WATER SYSTEM
  3. THIS COMPONENT IS AN INTEGRAL PART OF THE ACTIVE REFRIGERATION UNIT ASSEMBLY AND IS, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE CHILLED WATER PRIMARY CONTAINMENT REFRIGERATION UNIT CONDENSER HEAT EXCHANGER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  5. THE CHILLED WATER PRIMARY CONTAINMENT REFRIGERATION UNIT EVAPORATOR HEAT EXCHANGER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  6. THE CHILLED WATER PRIMARY CONTAINMENT REFRIGERATION UNIT OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  7. SEE DRAWING M-118, SHEET 16 FOR DRAINS.
  8. THIS INSTRUMENT DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
	29		K	W	R
	13			B	P
NO DATE			REVISION		
MECHANICAL			REVISION		
LICENSE RENEWAL BOUNDARY DRAWING			REVISION		
DIAGRAM OF CONTAINMENT			REVISION		
CHILLED WATER SYSTEM (WO)			REVISION		
UNIT 2			REVISION		
BRAIDWOOD STATION 20			REVISION		
EXELON NUCLEAR CORP.			REVISION		
LR-BRW-M-118			SHEET 6		0







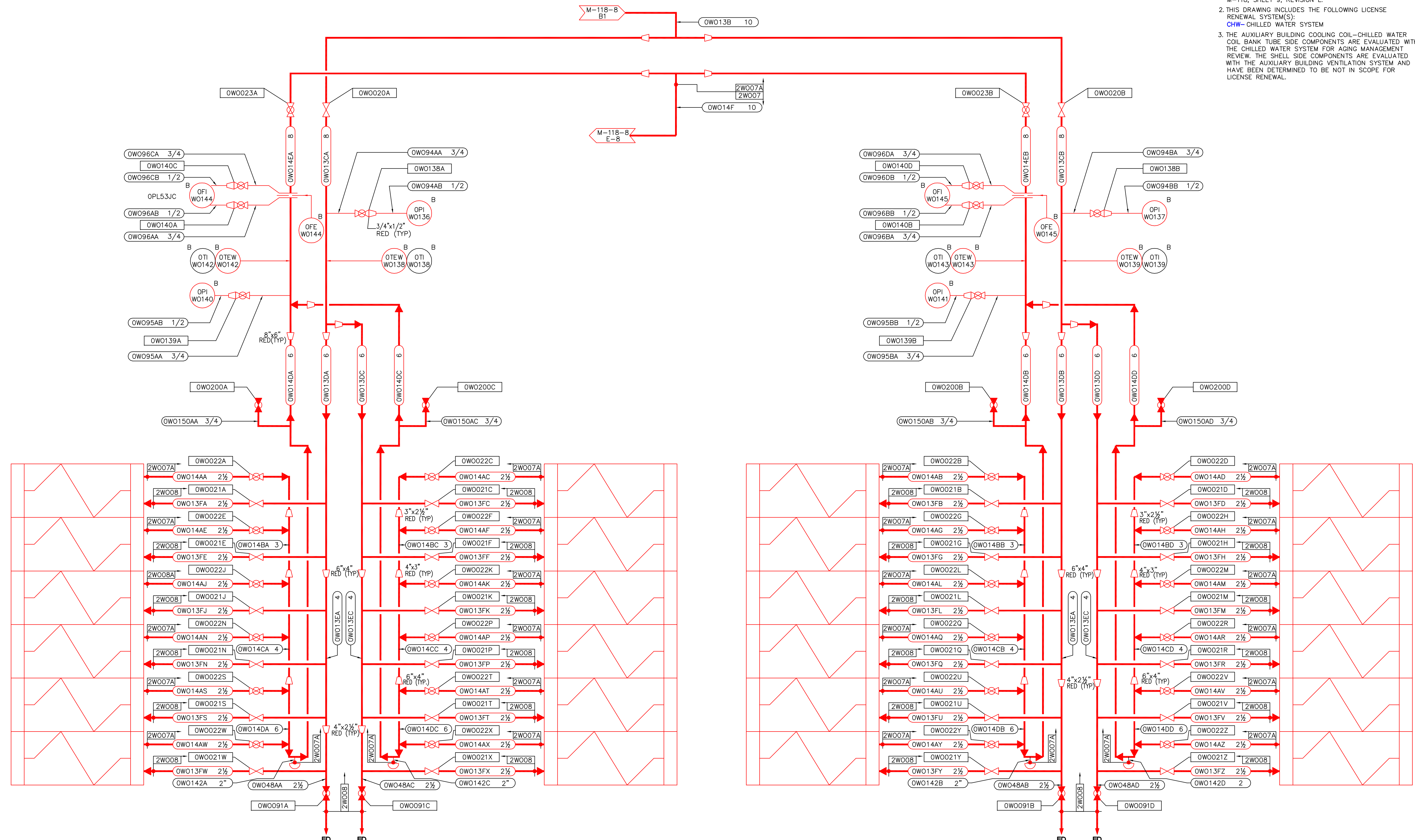


- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-118, SHEET 8, REVISION W.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CHW- CHILLED WATER SYSTEM  
 DWS- DEMINERALIZED WATER SYSTEM
  - THIS COMPONENT IS AN INTEGRAL PART OF THE ACTIVE REFRIGERATION UNIT ASSEMBLY AND IS, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE AUXILIARY BUILDING HVAC REFRIGERATION UNIT CONDENSER TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - THE AUXILIARY BUILDING REFRIGERATION UNIT EVAPORATOR TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - THE AUXILIARY BUILDING REFRIGERATION UNIT PUMP OUT UNIT TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND THEREFORE, ARE NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - THE AUXILIARY BUILDING REFRIGERATION UNIT OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - SEE DRAWING M-82, SHEET 15 FOR DRAINS.
  - THIS INSTRUMENT DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL AND IS NOT SUBJECT TO AGING MANAGEMENT REVIEW.

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A	R
				K	W	B	P
NO	DATE		DESCRIPTION	RVD	CKD	APD	
			REVISION				
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING							
DIAGRAM OF AUXILIARY BUILDING							
CHILLED WATER SYSTEM (WO)							
UNITS 1&2							
BRAIDWOOD STATION 20							
EXELON NUCLEAR CORP.							
LR-BRW-M-118 SHEET 8							



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-118, SHEET 9, REVISION L.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CHW- CHILLED WATER SYSTEM  
 3. THE AUXILIARY BUILDING COOLING COIL-CHILLED WATER COIL BANK TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM AND HAVE BEEN DETERMINED TO BE NOT IN SCOPE FOR LICENSE RENEWAL.



AUXILIARY BUILDING COOLING COIL-  
 CHILLED WATER COIL BANK  
 OVA02AA  
 NOTE 3

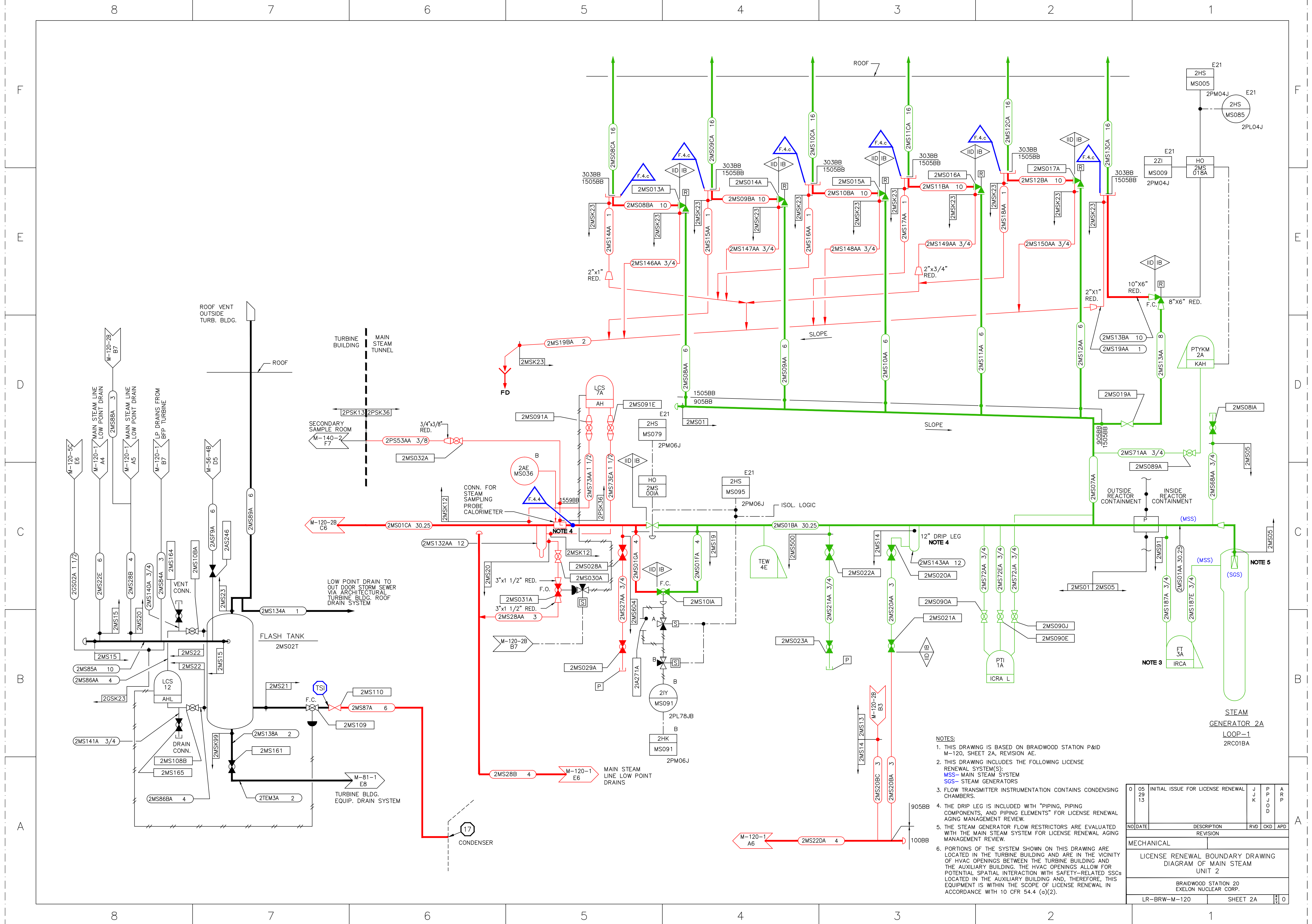
AUXILIARY BUILDING COOLING COIL-  
 CHILLED WATER COIL BANK  
 OVA02AB  
 NOTE 3

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
29	13		K	B	R
					P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF AUXILIARY BUILDING					
CHILLED WATER SYSTEM (WO)					
UNITS 1&2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-118 SHEET 9					



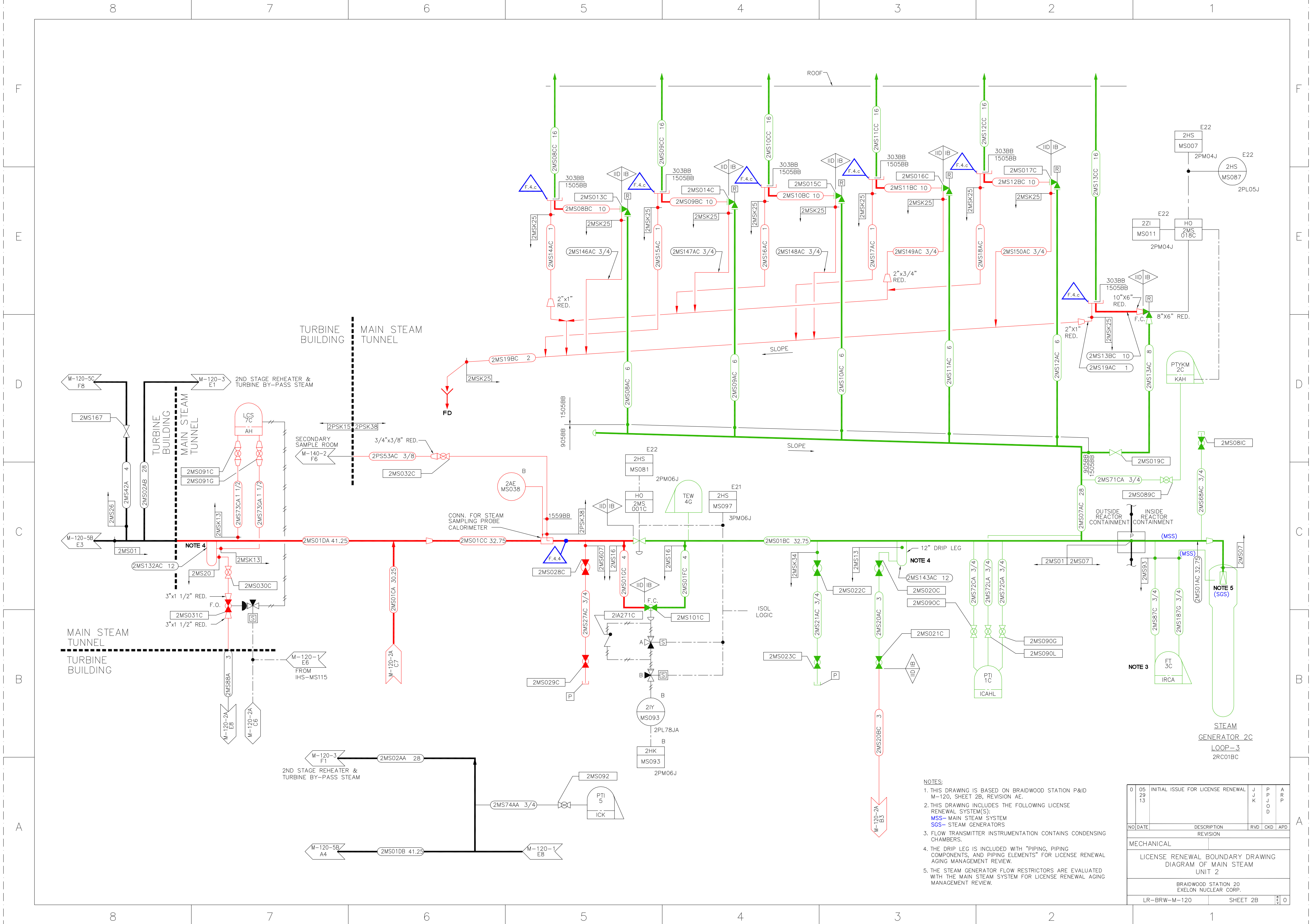






- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-120, SHEET 2A, REVISION AE.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MSS- MAIN STEAM SYSTEM  
 SCS- STEAM GENERATORS
  3. FLOW TRANSMITTER INSTRUMENTATION CONTAINS CONDENSING CHAMBERS.
  4. THE DRIP LEG IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  5. THE STEAM GENERATOR FLOW RESTRICTORS ARE EVALUATED WITH THE MAIN STEAM SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  6. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
	29		K	O	R
	13		L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O	O	D
			J	P	A
			K	O	R
			L	P	P
			O		

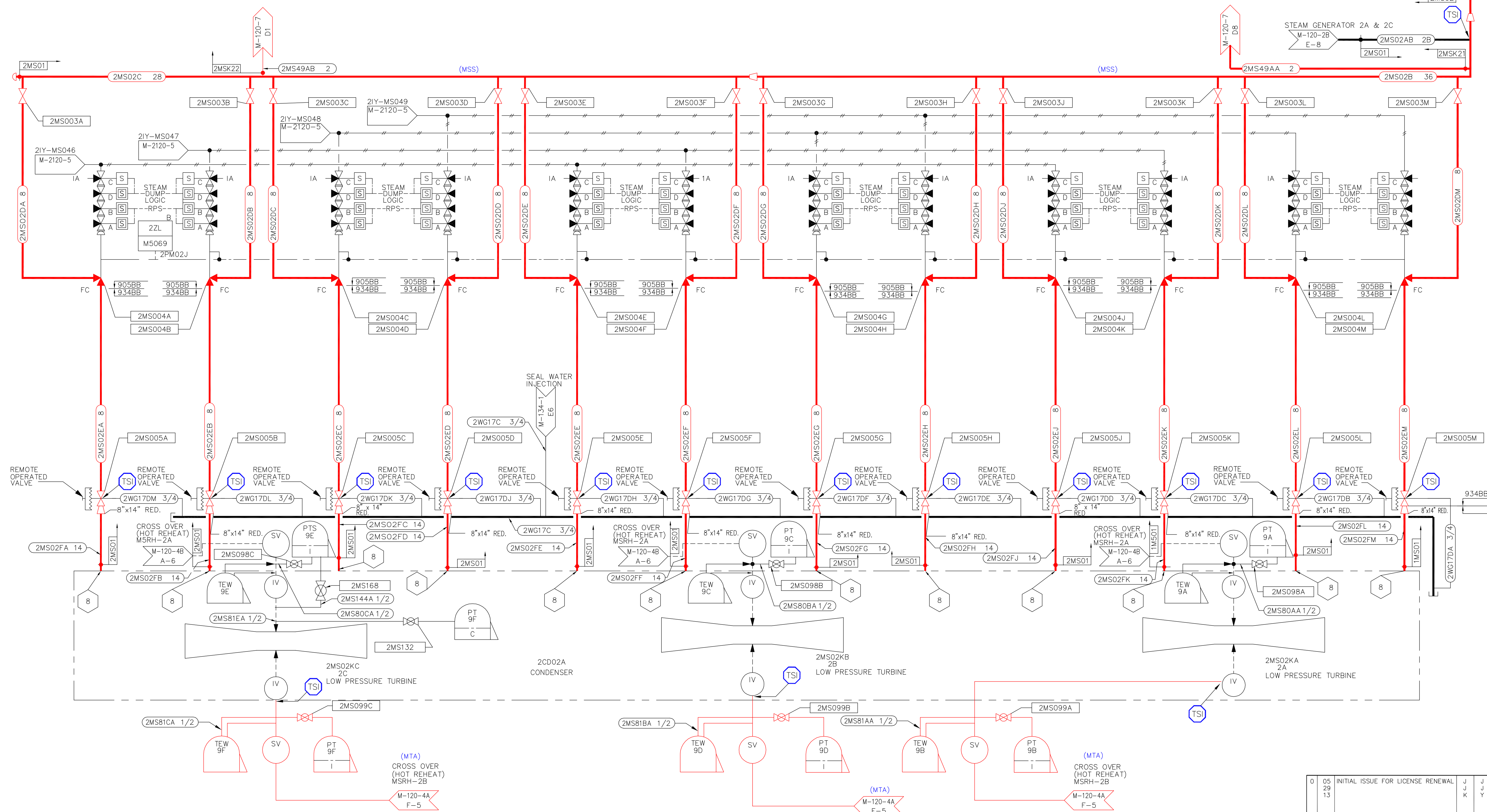


- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-120, SHEET 2B, REVISION AE.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MSS- MAIN STEAM SYSTEM  
 SGS- STEAM GENERATORS
  - FLOW TRANSMITTER INSTRUMENTATION CONTAINS CONDENSING CHAMBERS.
  - THE DRIP LEG IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE STEAM GENERATOR FLOW RESTRICTORS ARE EVALUATED WITH THE MAIN STEAM SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

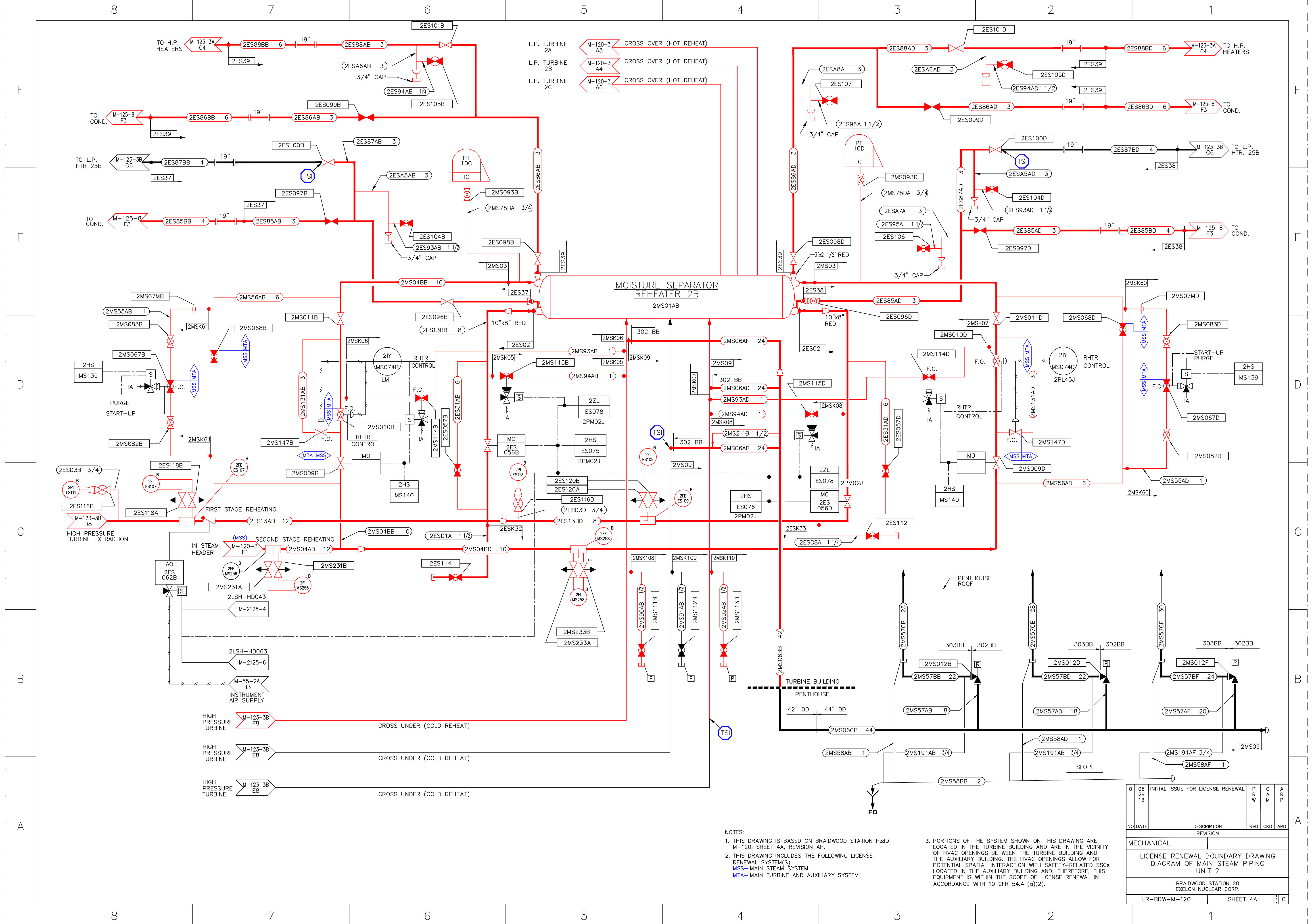
05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A
29		K	P	R
13			O	P
			D	
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF MAIN STEAM				
UNIT 2				
BRAIDWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-120	SHEET 2B			0



- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-120, SHEET 3, REVISION V.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MSS- MAIN STEAM SYSTEM  
 MTA- MAIN TURBINE AND AUXILIARY SYSTEM
  - PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).



0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	J	A
29	13		K	Y	R
NO DATE			DESCRIPTION	RVD	CKD
			REVISION	APD	
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF MAIN STEAM (MS)					
UNIT 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-120			SHEET 3		0

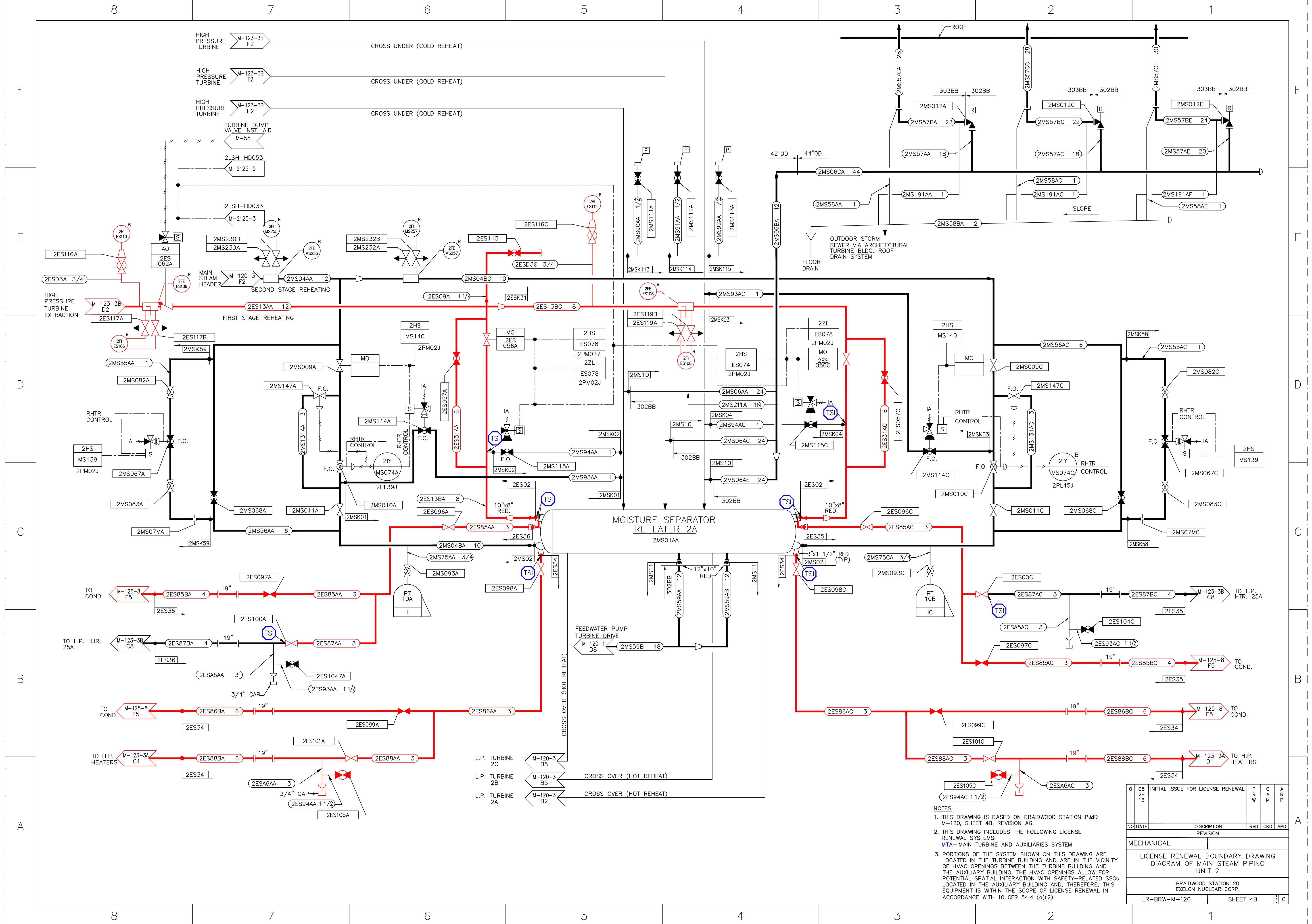


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-120, SHEET 4A, REVISION AH.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MSS- MAIN STEAM SYSTEM  
 MTA- MAIN TURBINE AND AUXILIARY SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF MAIN STEAM PIPING UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-120 SHEET 4A 0				





NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-120, SHEET 4B, REVISION AG.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
MTA- MAIN TURBINE AND AUXILIARIES SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
29		W	A	M	P
13					
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF MAIN STEAM PIPING					
UNIT 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-120					
SHEET 4B					
0					



F

E

D

C

B

A

F

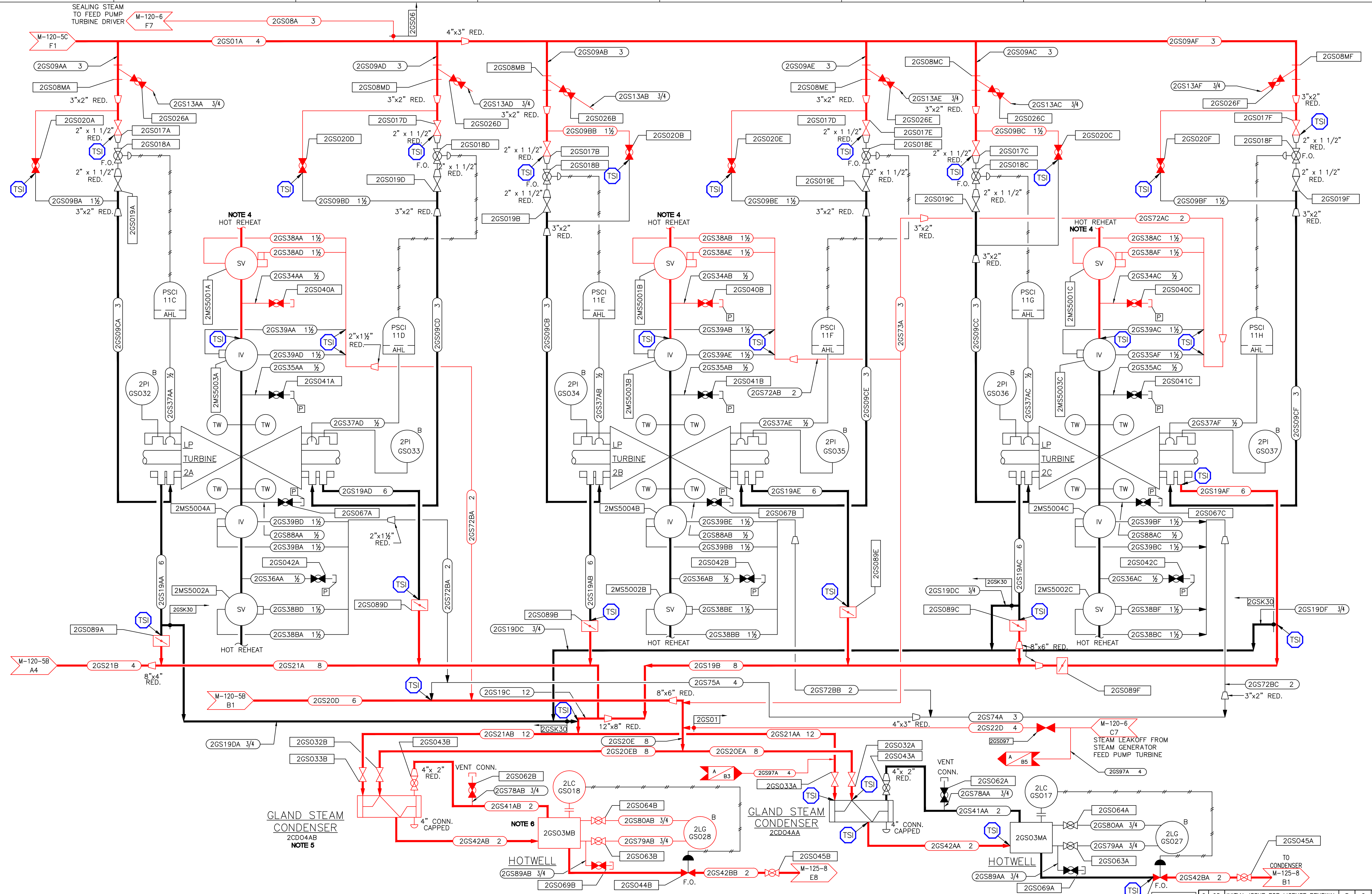
E

D

C

B

A



NOTE 4  
HOT REHEAT

NOTE 4  
HOT REHEAT

NOTE 4  
HOT REHEAT

GLAND STEAM  
CONDENSER  
2CD04AB  
NOTE 5

GLAND STEAM  
CONDENSER  
2CD04AA

HOTWELL  
2GS03MB

HOTWELL  
2GS03MA

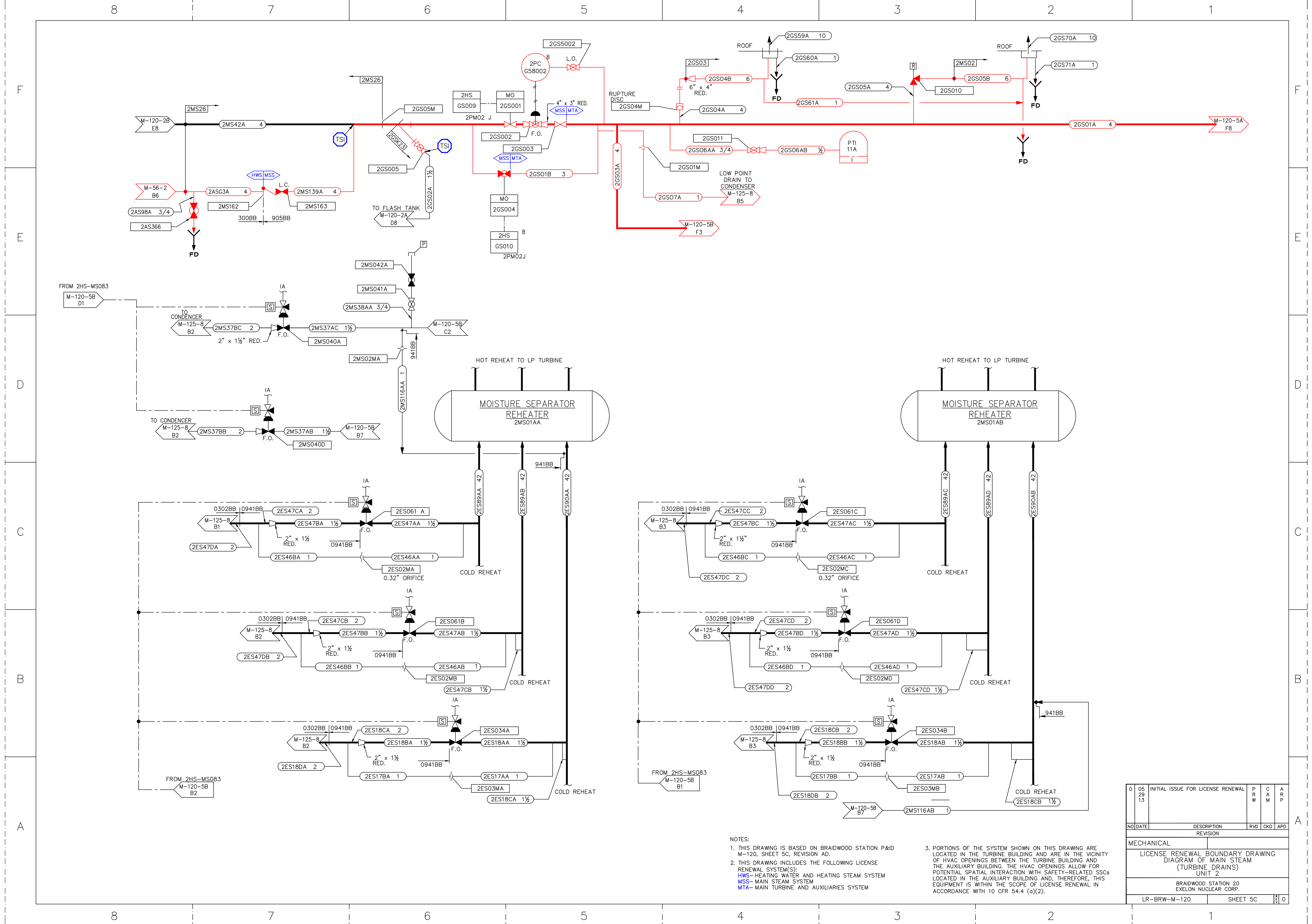
NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-120, SHEET 5A, REVISION AD.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MTA- MAIN TURBINE AND AUXILIARIES SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).
- SEE M-120, SHEET 3 FOR CONTINUATION OF HOT REHEAT LINES.
- THE GLAND STEAM CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE MAIN TURBINE AND AUXILIARIES SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE MAIN CONDENSATE AND FEEDWATER SYSTEM. THE TUBES AND TUBE SHEET ARE ENCLOSED AND DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
- THE HOWELL IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	M	A	R	P
NO/DATE	DESCRIPTION	RVD	CKD	APD					
MECHANICAL									
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF MAIN STEAM UNIT 2									
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.									
LR-BRW-M-120 SHEET 5A 0									





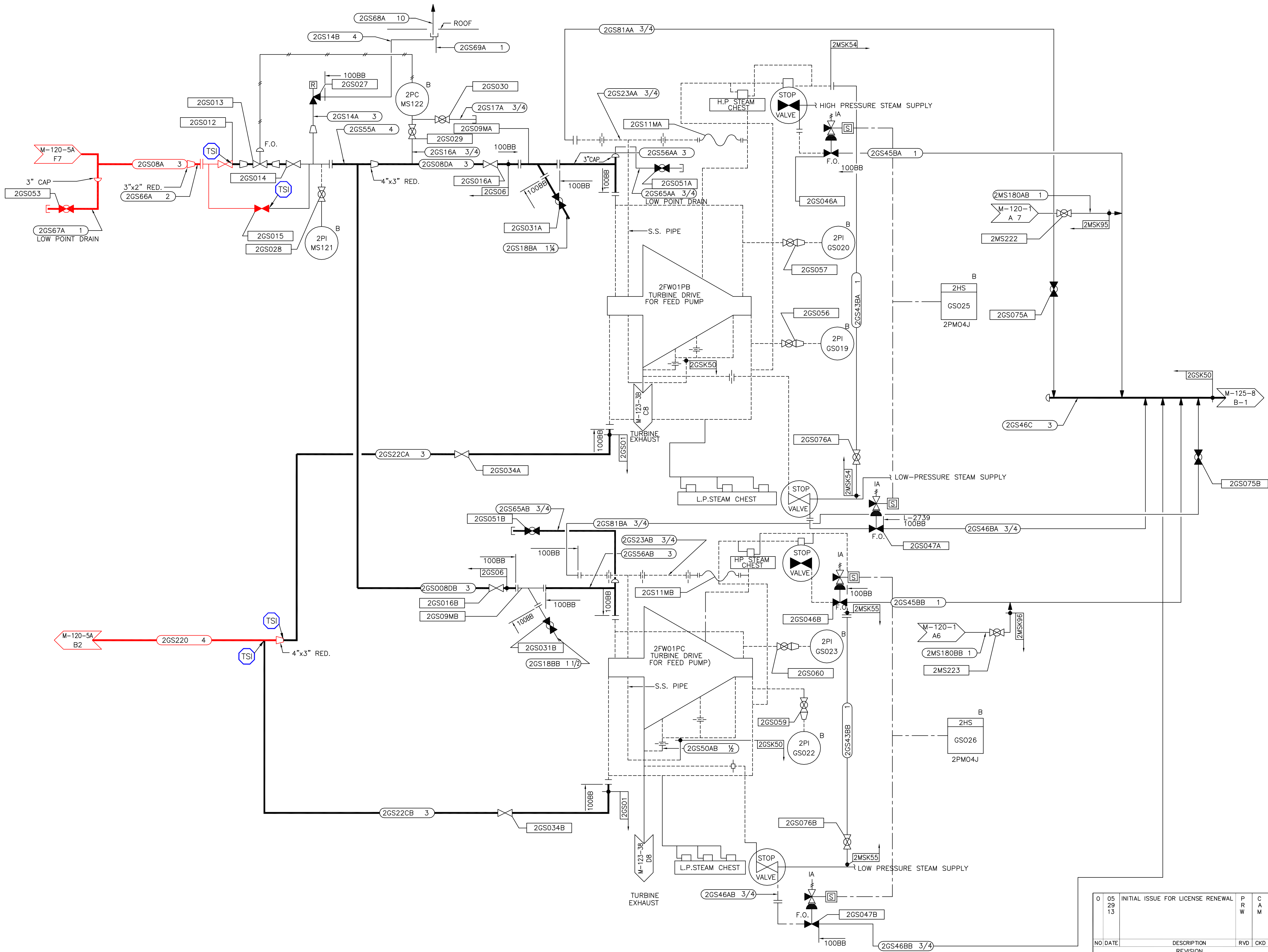


NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-120, SHEET 5C, REVISION AD.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 HWS- HEATING WATER AND HEATING STEAM SYSTEM  
 MSS- MAIN STEAM SYSTEM  
 MTA- MAIN TURBINE AND AUXILIARIES SYSTEM
3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
29			R	A		
13			W	M		P
NO DATE			DESCRIPTION	RVD	CKD	APD
REVISION						
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF MAIN STEAM (TURBINE DRAINS) UNIT 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-120			SHEET 5C		0	





NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-120, SHEET 6, REVISION 5.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MTA- MAIN TURBINE AND AUXILIARIES SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF MAIN STEAM UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-120	SHEET 6	0		

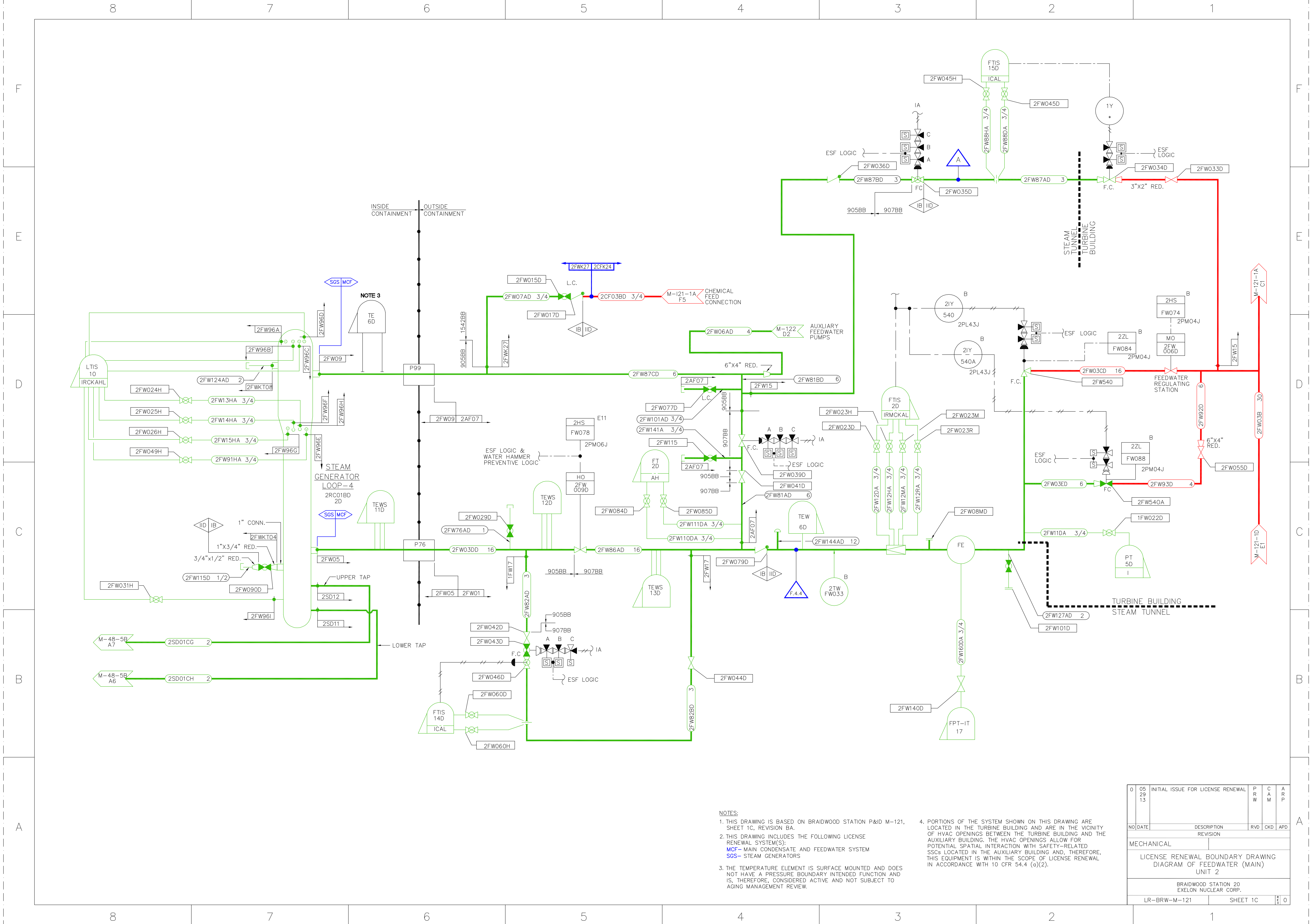








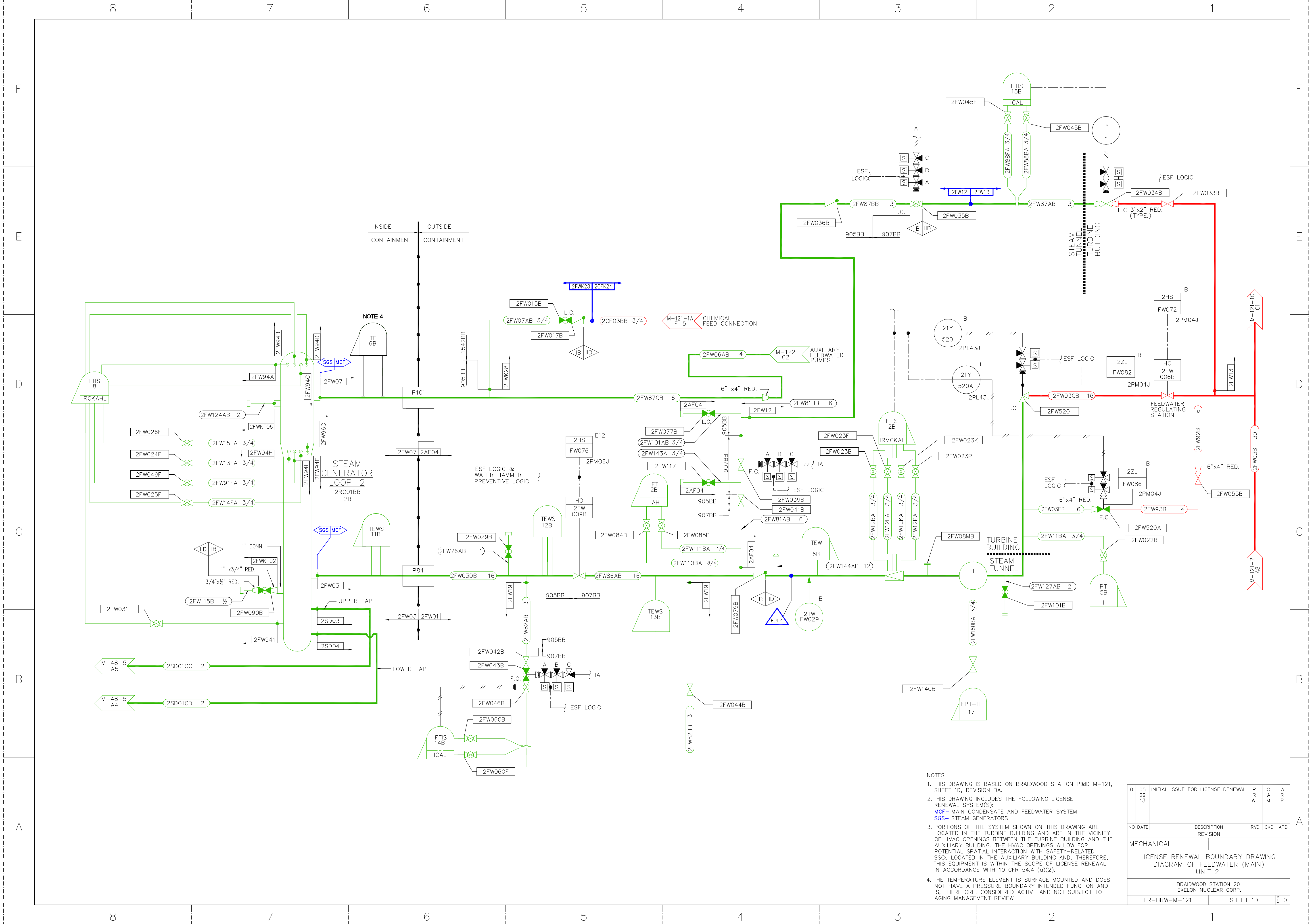




**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-121, SHEET 1C, REVISION BA.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MCF - MAIN CONDENSATE AND FEEDWATER SYSTEM  
 SGS - STEAM GENERATORS
- THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FEEDWATER (MAIN) UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-121		SHEET 1C		0



NOTE 4

STEAM GENERATOR LOOP-2

2RC01BB 2B

TEWS 11B

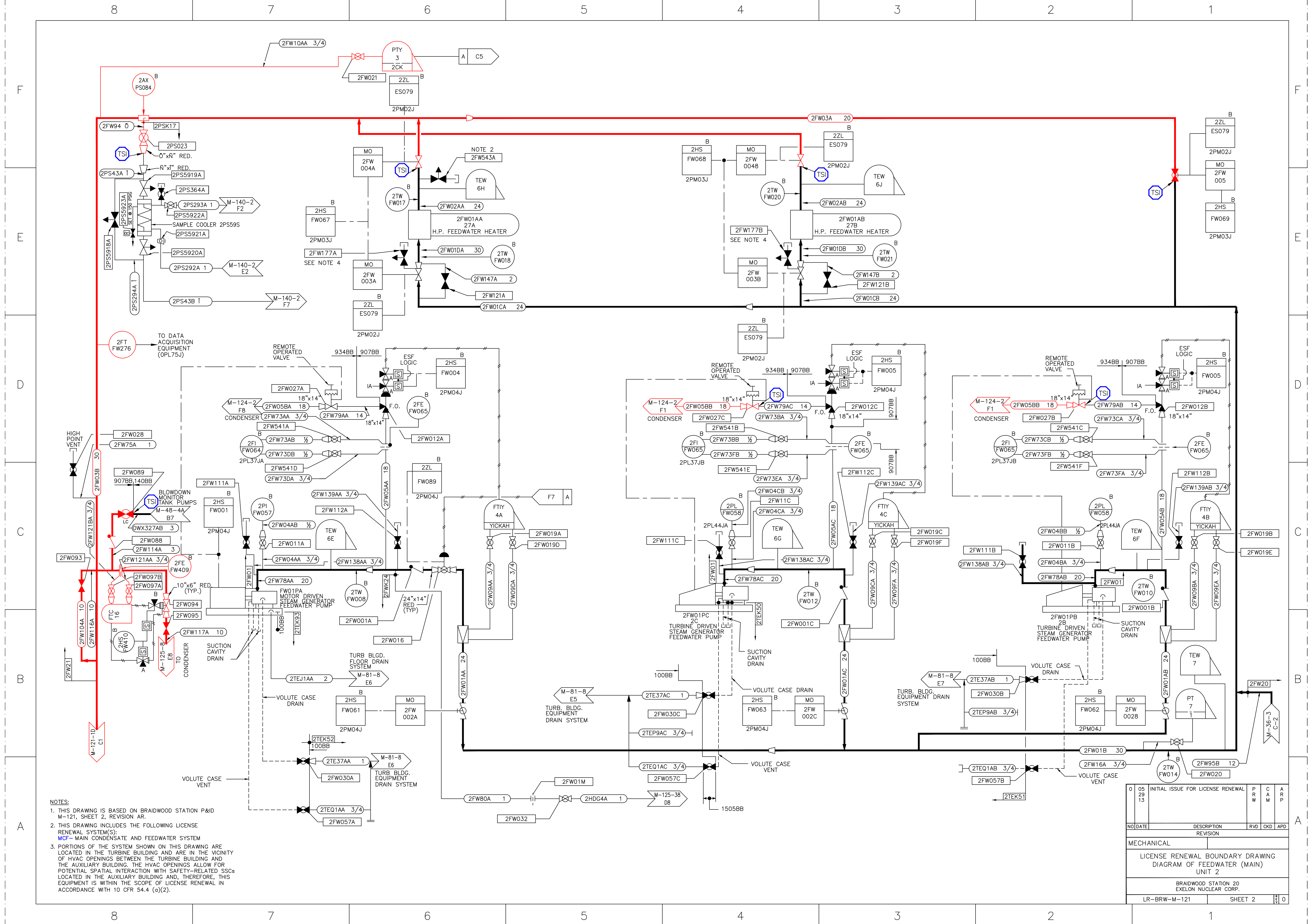
UPPER TAP

LOWER TAP

- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-121, SHEET 1D, REVISION BA.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MCF- MAIN CONDENSATE AND FEEDWATER SYSTEM  
SGS- STEAM GENERATORS
  - PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (e)(2).
  - THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
				W		M		P
NO	DATE		DESCRIPTION	RVD	CKD	APD		
			REVISION					
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF FEEDWATER (MAIN)								
UNIT 2								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-121			SHEET 1D			0		



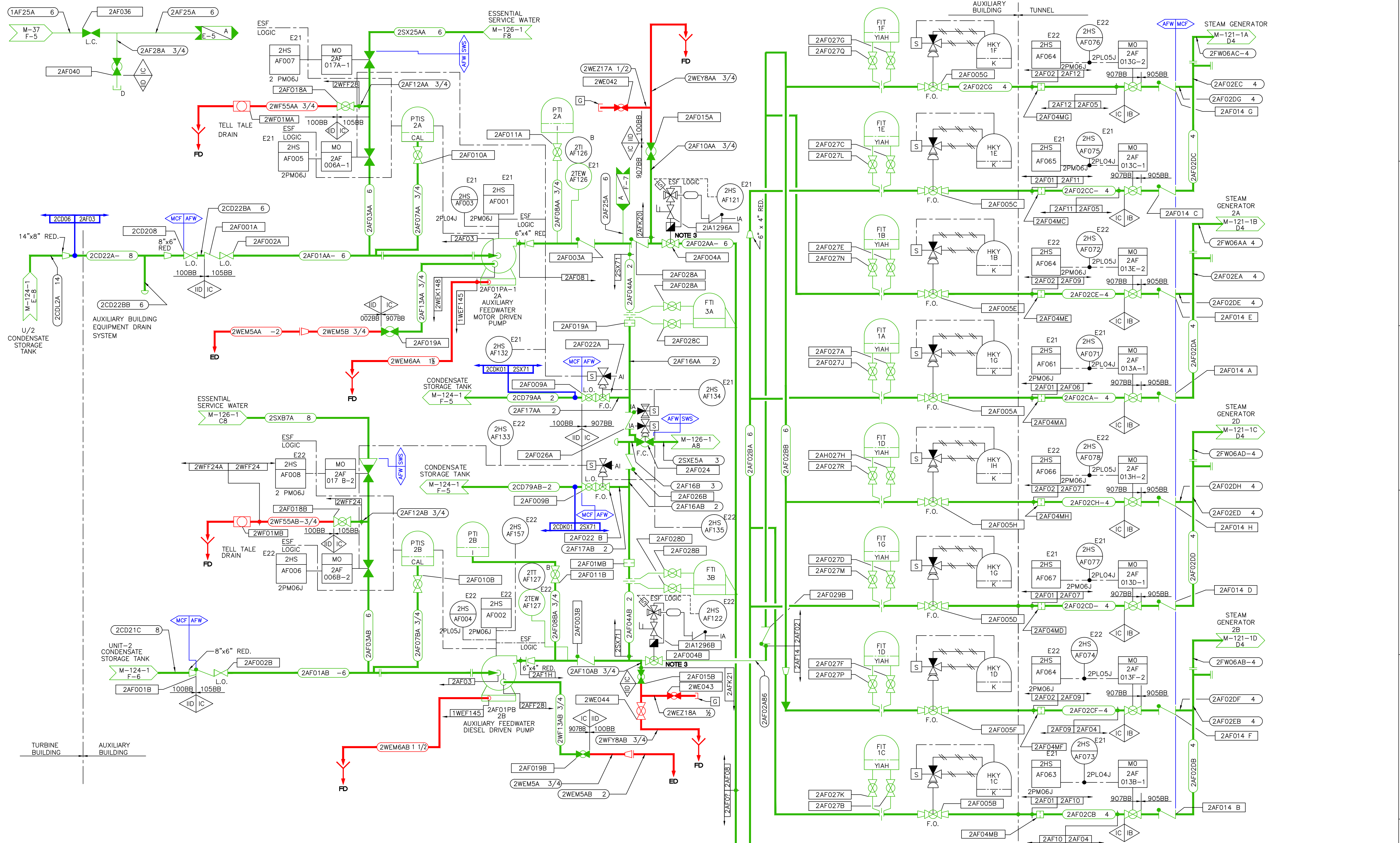


**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-121, SHEET 2, REVISION AR.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MCF - MAIN CONDENSATE AND FEEDWATER SYSTEM
3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FEEDWATER (MAIN) UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-121 SHEET 2 0				



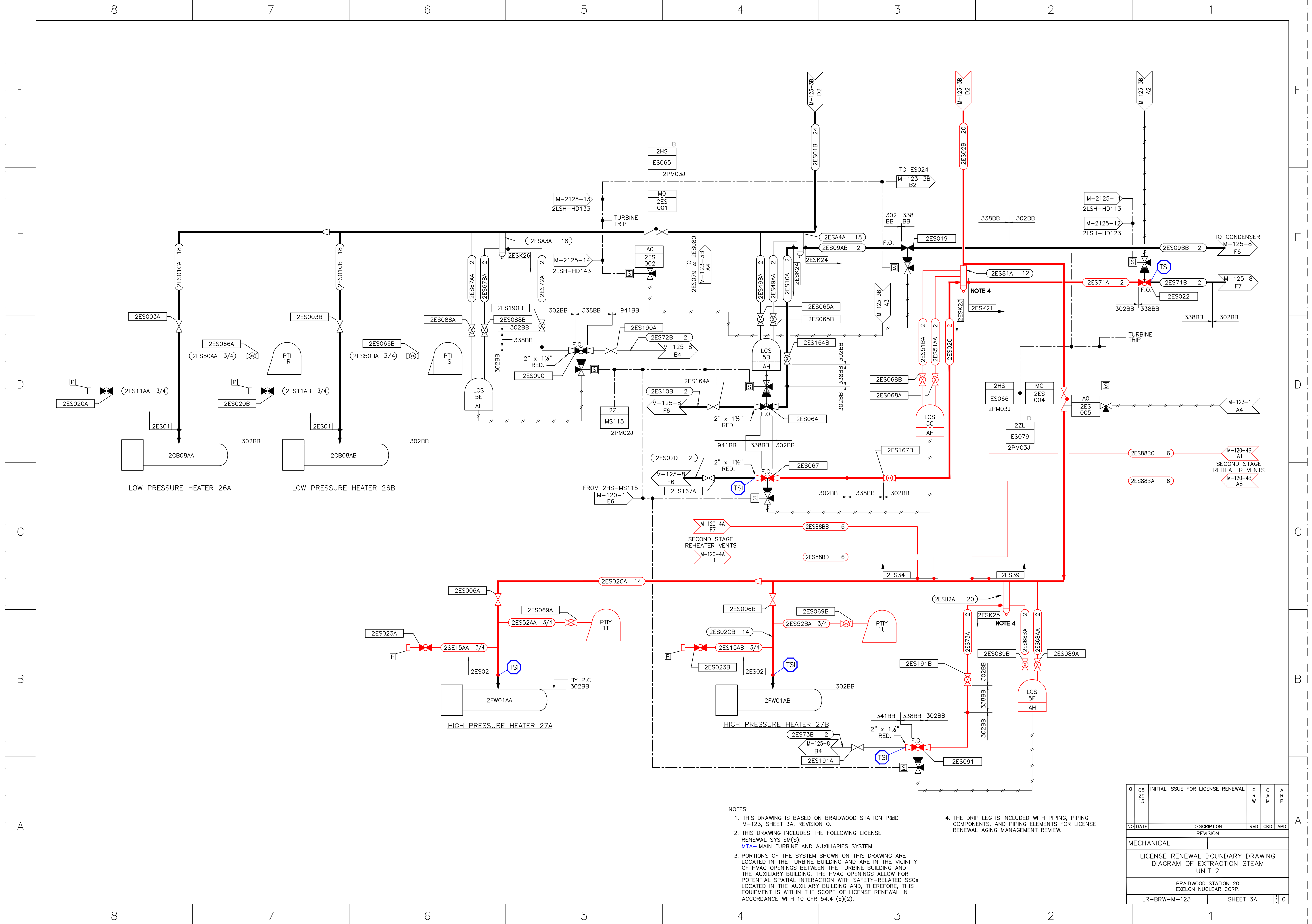


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-122, REVISION BA.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 AFW- AUXILIARY FEEDWATER SYSTEM  
 MCF- MAIN CONDENSATE AND FEEDWATER SYSTEM  
 SWS- SERVICE WATER SYSTEM
- THE AFW PUMP DISCHARGE VALVES FAIL-AS-IS ON TOTAL LOSS OF INSTRUMENT AIR. THE INSTRUMENT AIR COMPONENTS DO NOT SUPPORT ANY SYSTEM INTENDED FUNCTIONS AND THEREFORE ARE NOT IN SCOPE FOR LICENSE RENEWAL.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J K L	P P J O U D	A R P
NO/DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF AUXILIARY FEEDWATER UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-122		SHEET 1		0

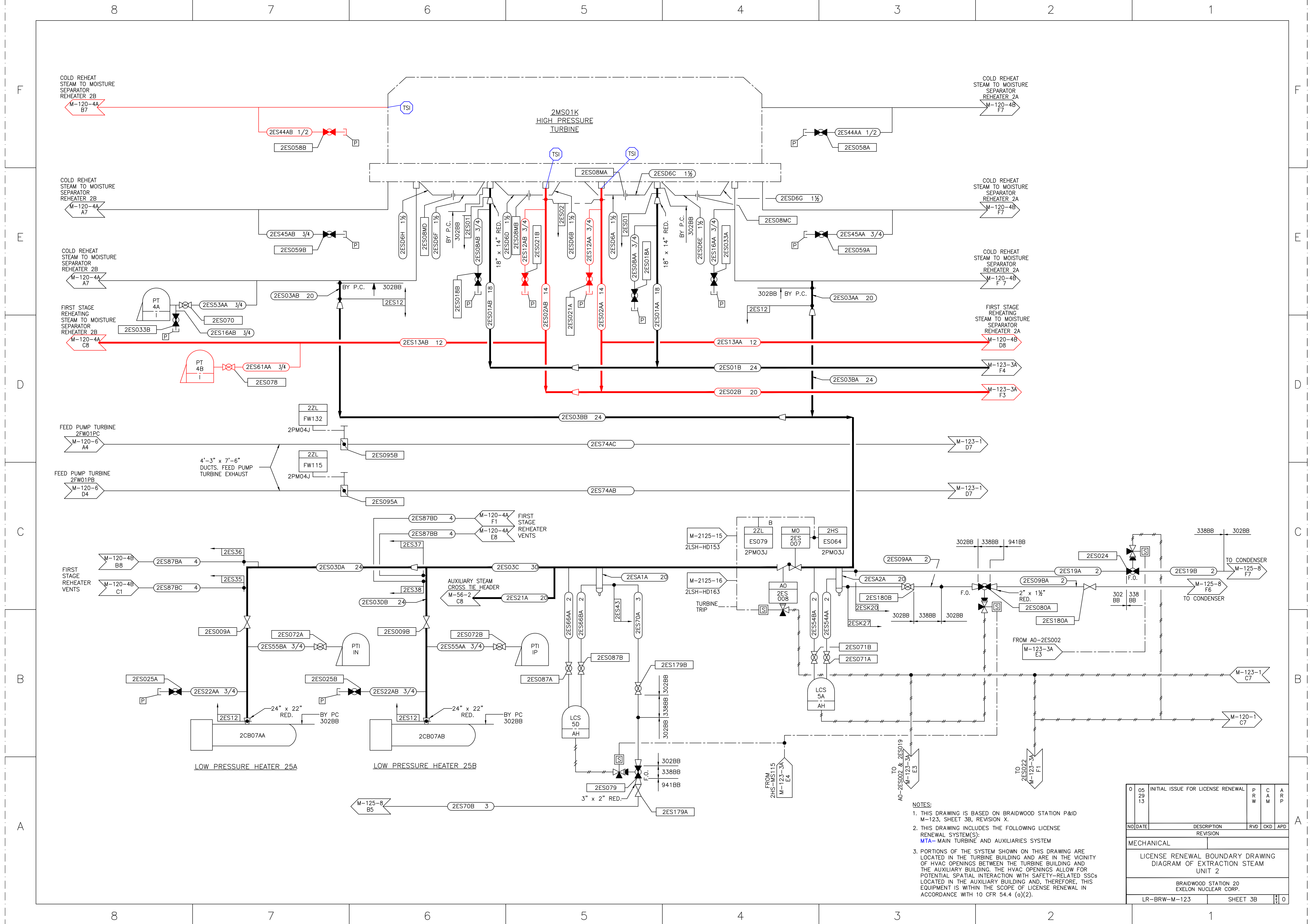




**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-123, SHEET 3A, REVISION Q.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MTA- MAIN TURBINE AND AUXILIARIES SYSTEM
3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).
4. THE DRIP LEG IS INCLUDED WITH PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

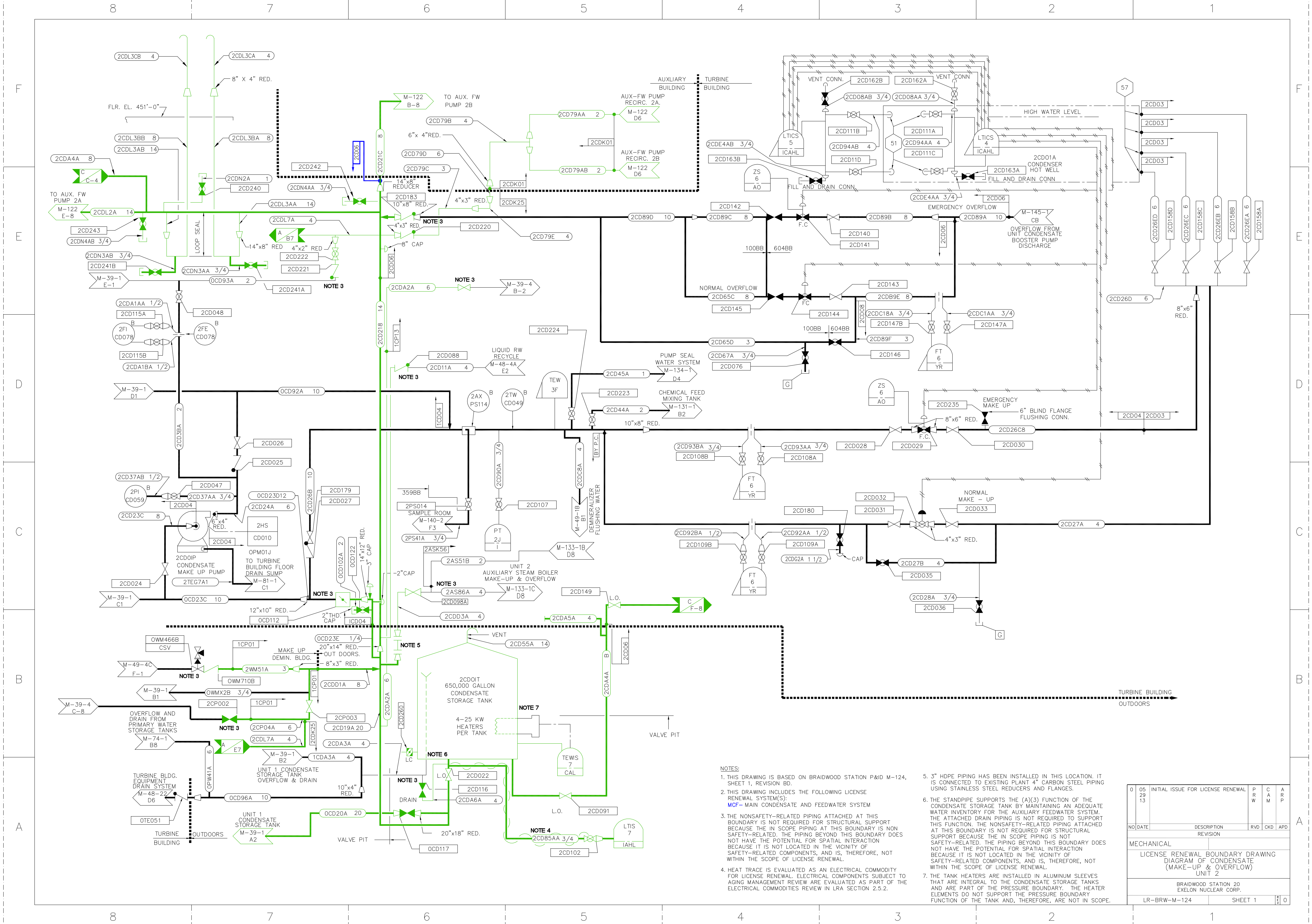
05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
NO/DATE	DESCRIPTION	RVD	CKD	APD	REVISION	
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF EXTRACTION STEAM UNIT 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-123		SHEET 3A		0		



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-123, SHEET 3B, REVISION X.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MTA- MAIN TURBINE AND AUXILIARIES SYSTEM  
 3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
29	13		W	A	M		P
NO DATE		DESCRIPTION	RVD	CKD	APD		
		REVISION					
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF EXTRACTION STEAM UNIT 2							
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.							
LR-BRW-M-123		SHEET 3B		0			



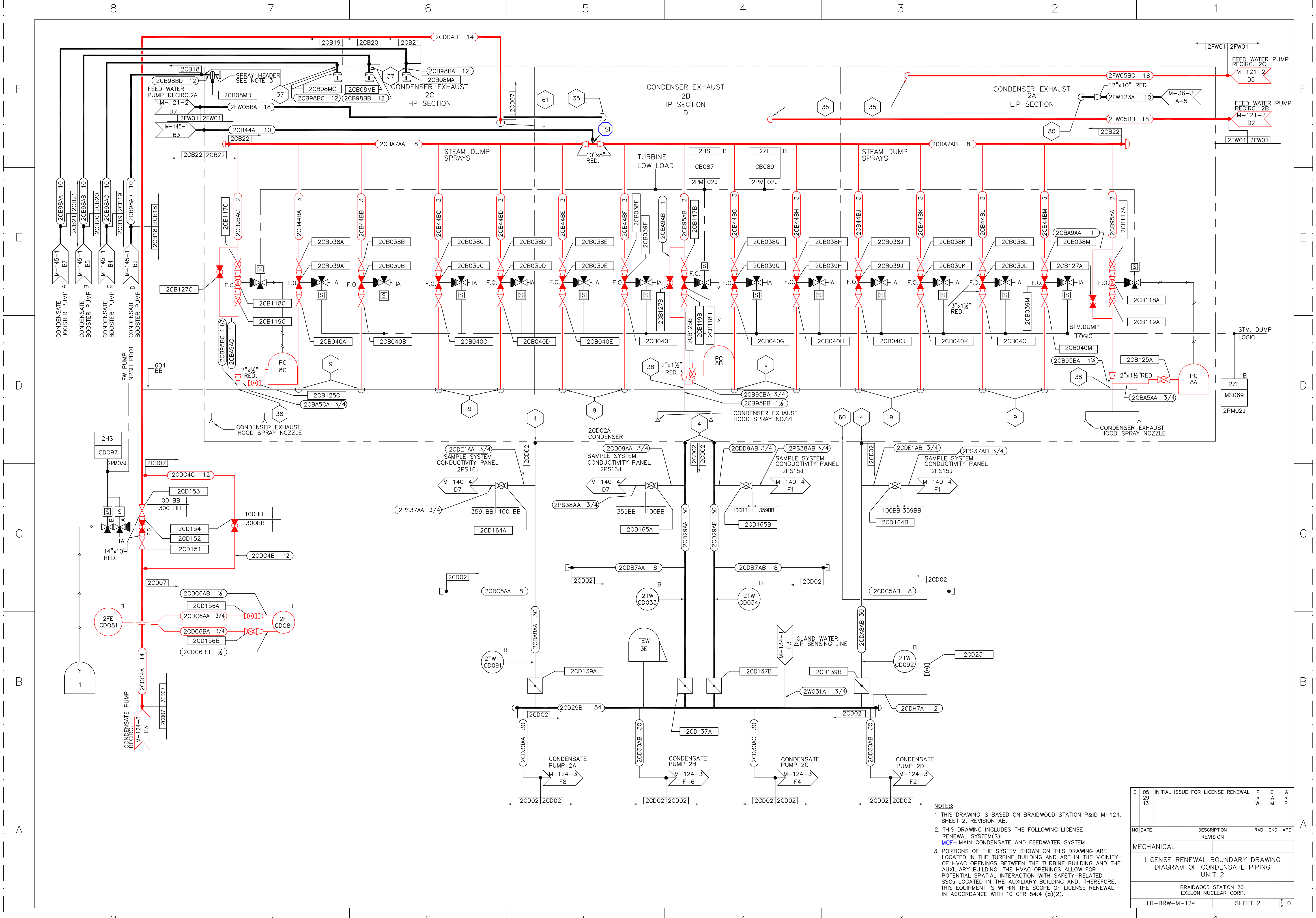


- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-124, SHEET 1, REVISION BD.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MCF - MAIN CONDENSATE AND FEEDWATER SYSTEM
  - THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY IS NON SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT IS NOT LOCATED IN THE VICINITY OF SAFETY-RELATED COMPONENTS, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  - HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.

- 3" HDPE PIPING HAS BEEN INSTALLED IN THIS LOCATION. IT IS CONNECTED TO EXISTING PLANT 4" CARBON STEEL PIPING USING STAINLESS STEEL REDUCERS AND FLANGES.
- THE STANDPIPE SUPPORTS THE (A)(3) FUNCTION OF THE CONDENSATE STORAGE TANK BY MAINTAINING AN ADEQUATE WATER INVENTORY FOR THE AUXILIARY FEEDWATER SYSTEM. THE ATTACHED DRAIN PIPING IS NOT REQUIRED TO SUPPORT THIS FUNCTION. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING IS NOT SAFETY-RELATED. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT IS NOT LOCATED IN THE VICINITY OF SAFETY-RELATED COMPONENTS, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
- THE TANK HEATERS ARE INSTALLED IN ALUMINUM SLEEVES THAT ARE INTEGRAL TO THE CONDENSATE STORAGE TANKS AND ARE PART OF THE PRESSURE BOUNDARY. THE HEATER ELEMENTS DO NOT SUPPORT THE PRESSURE BOUNDARY FUNCTION OF THE TANK AND, THEREFORE, ARE NOT IN SCOPE.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
					W		M		P
NO	DATE			DESCRIPTION	RVD	CKD	APD		
				REVISION					
MECHANICAL									
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CONDENSATE (MAKE-UP & OVERFLOW) UNIT 2									
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.									
LR-BRW-M-124 SHEET 1 0									

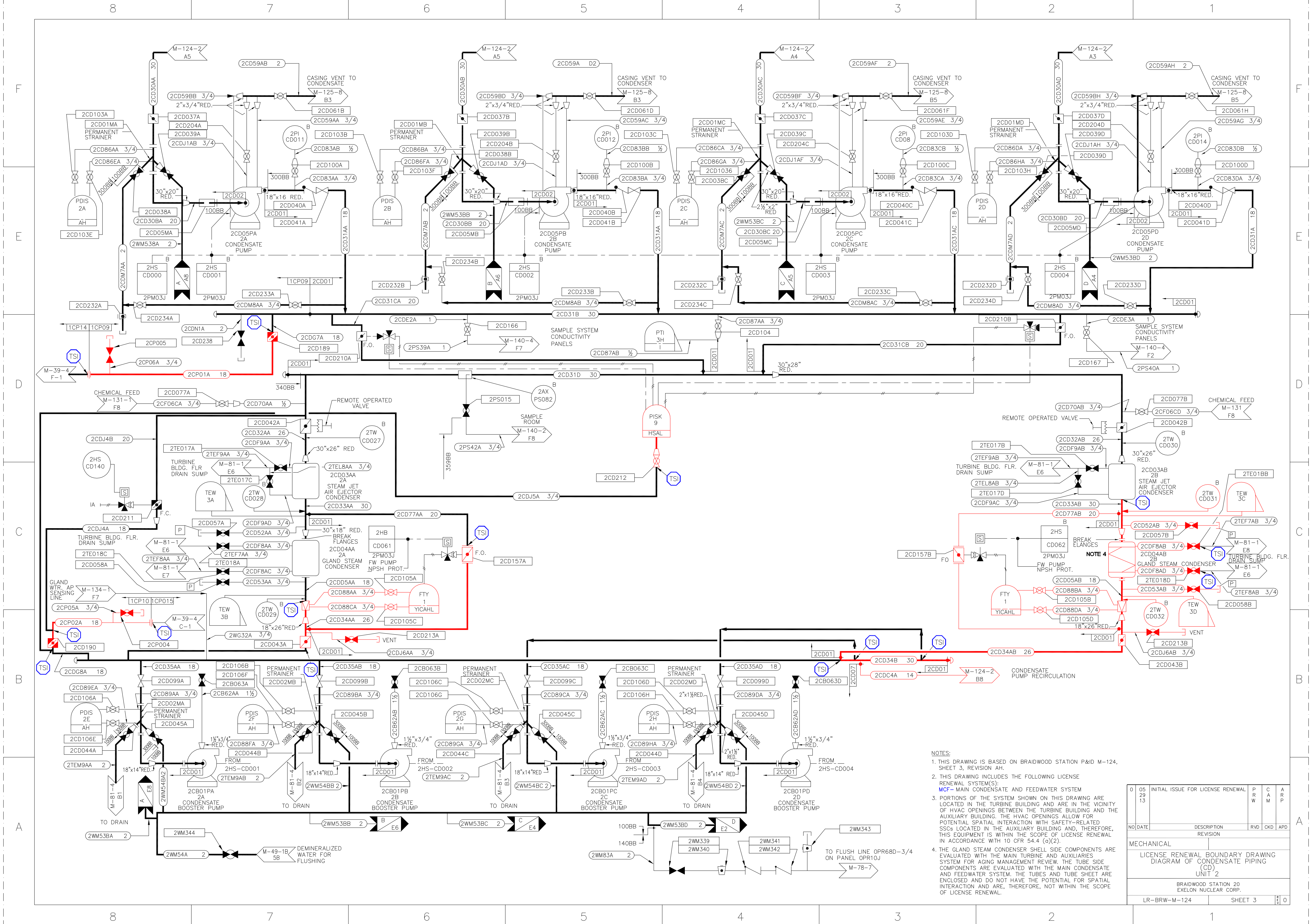




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-124, SHEET 2, REVISION AB.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 MCF- MAIN CONDENSATE AND FEEDWATER SYSTEM  
 3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (d)(2).

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
29		R	A	M	P
13					
NO DATE	DESCRIPTION	RVD	CKD	APD	
	REVISION				
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CONDENSATE PIPING UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-124 SHEET 2 0					



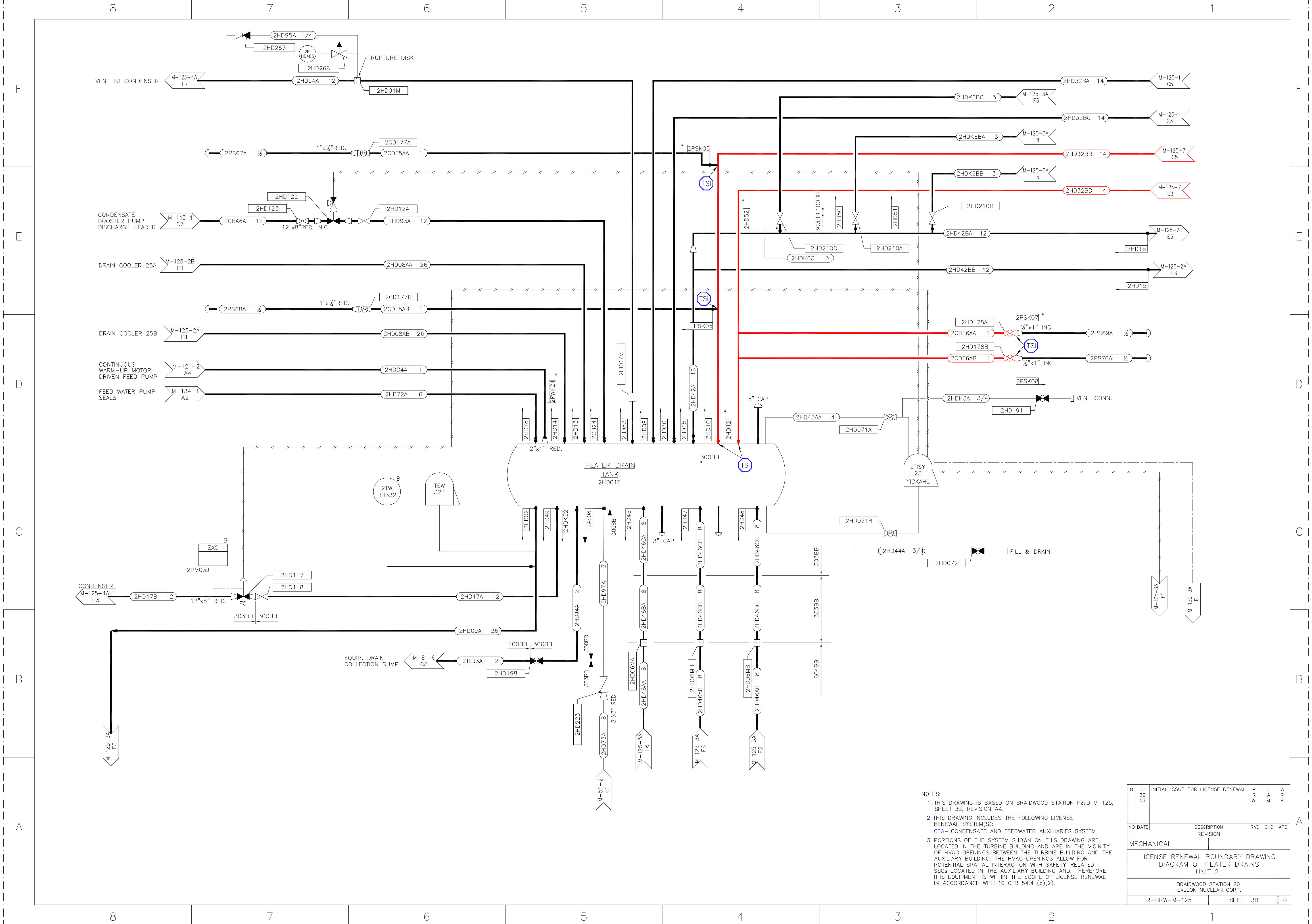


NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-124, SHEET 3, REVISION AH.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MCF - MAIN CONDENSATE AND FEEDWATER SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).
- THE GLAND STEAM CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE MAIN TURBINE AND AUXILIARIES SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE MAIN CONDENSATE AND FEEDWATER SYSTEM. THE TUBES AND TUBE SHEET ARE ENCLOSED AND DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	M	A	R	P
NO	DATE			DESCRIPTION	RVD	CKD	APD					
MECHANICAL												
LICENSE RENEWAL BOUNDARY DRAWING												
DIAGRAM OF CONDENSATE PIPING												
(CD)												
UNIT 2												
BRAIDWOOD STATION 20												
EXELON NUCLEAR CORP.												
LR-BRW-M-124												
SHEET 3												
0												



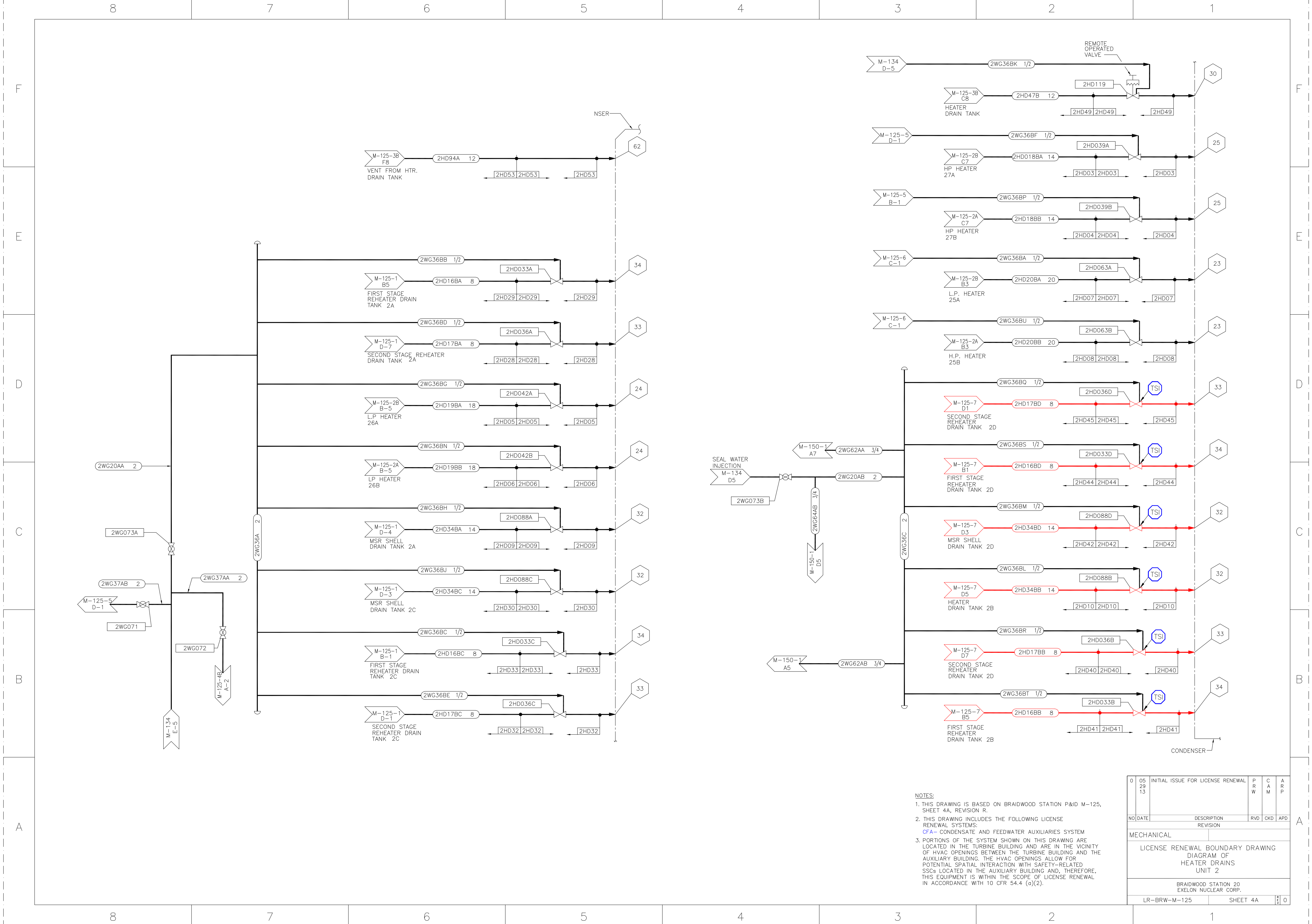


**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-125, SHEET 3B, REVISION AA.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CFA- CONDENSATE AND FEEDWATER AUXILIARIES SYSTEM
3. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (g)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF HEATER DRAINS UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-125	SHEET 3B	0		

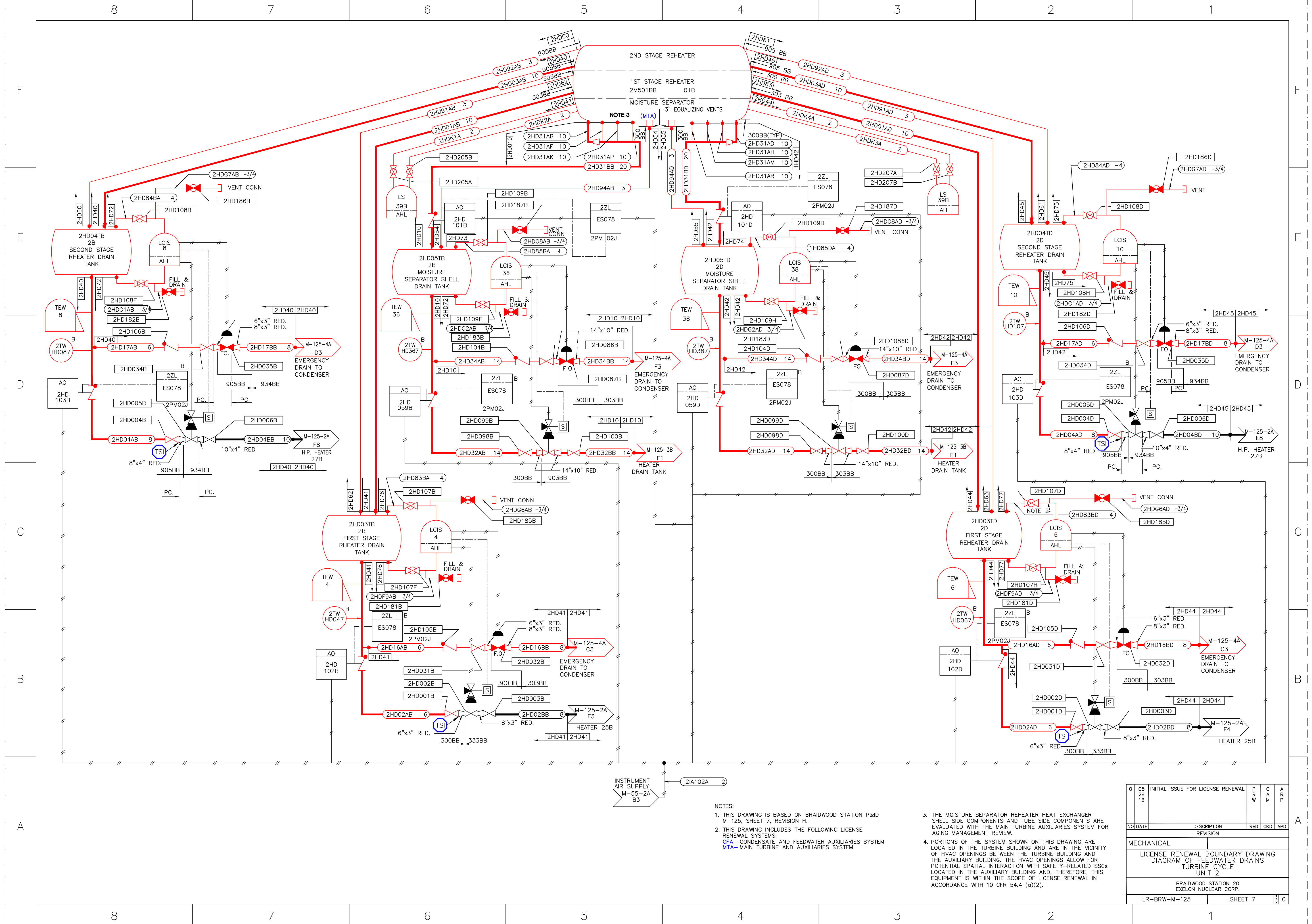




**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-125, SHEET 4A, REVISION R.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
CFA - CONDENSATE AND FEEDWATER AUXILIARIES SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (g)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P	
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF HEATER DRAINS UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-125 SHEET 4A 0					



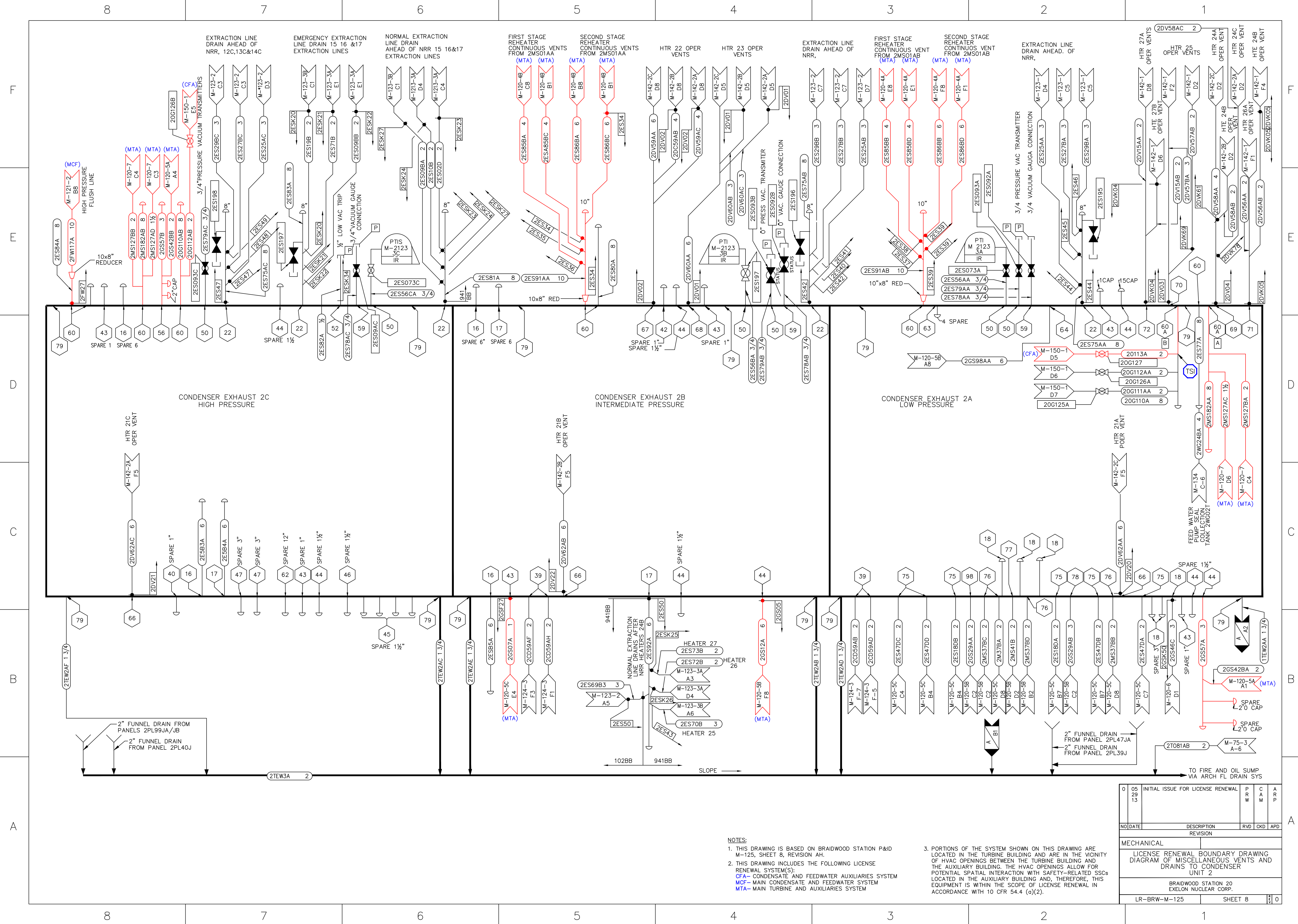
INSTRUMENT AIR SUPPLY  
M-55-2A  
B3

- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-125, SHEET 7, REVISION H.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
CFA- CONDENSATE AND FEEDWATER AUXILIARIES SYSTEM  
MTA- MAIN TURBINE AND AUXILIARIES SYSTEM

3. THE MOISTURE SEPARATOR REHEATER HEAT EXCHANGER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE MAIN TURBINE AUXILIARIES SYSTEM FOR AGING MANAGEMENT REVIEW.
4. PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
		R	A	M	P
NO DATE	DESCRIPTION	RVD	CKD	APD	
	REVISION				
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF FEEDWATER DRAINS TURBINE CYCLE UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-125 SHEET 7 0					



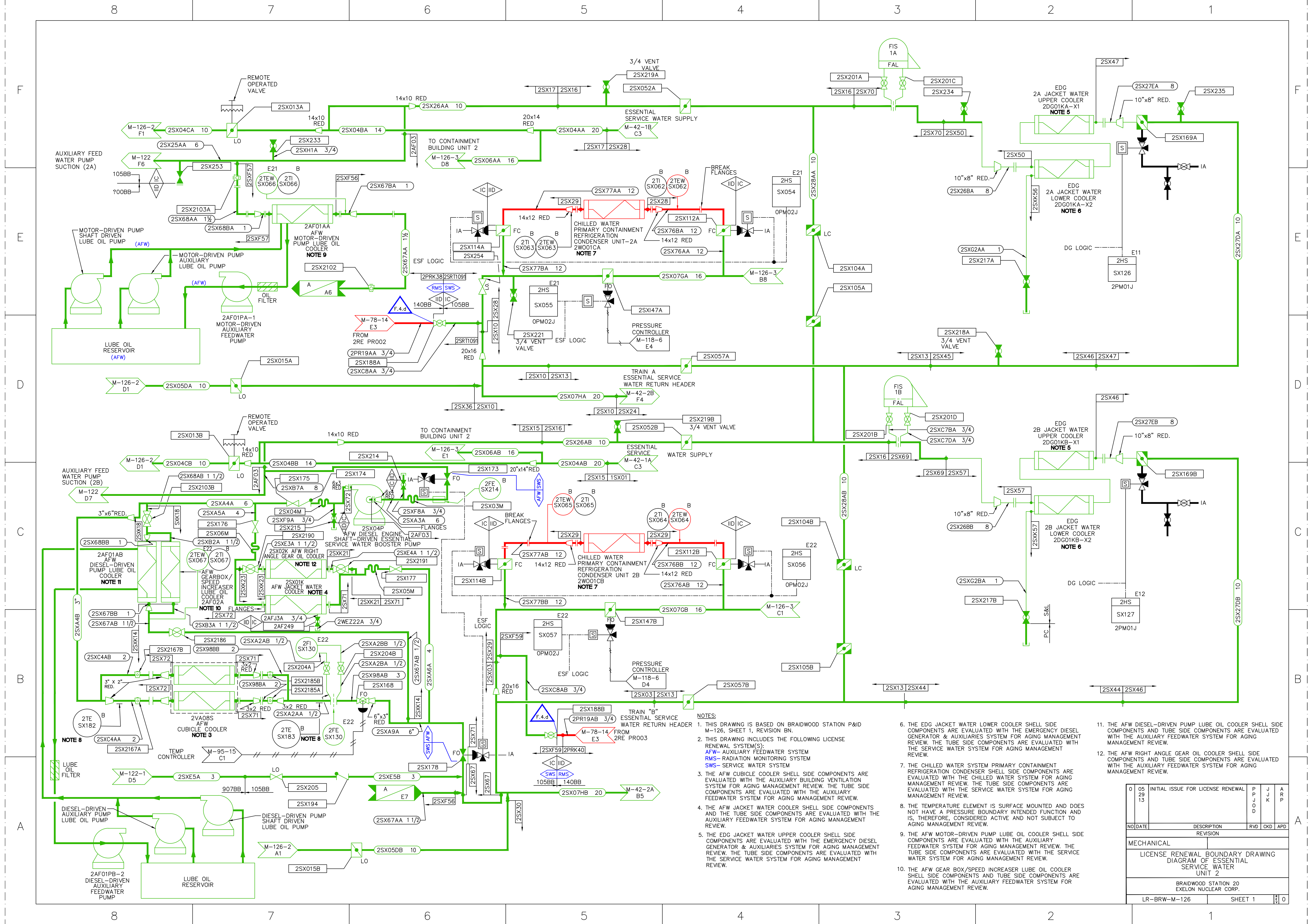


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-125, SHEET 8, REVISION AH.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CFA - CONDENSATE AND FEEDWATER AUXILIARIES SYSTEM  
 MCF - MAIN CONDENSATE AND FEEDWATER SYSTEM  
 MTA - MAIN TURBINE AND AUXILIARIES SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (a)(2).

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P	
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF MISCELLANEOUS VENTS AND DRAINS TO CONDENSER UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-125 SHEET 8 0					

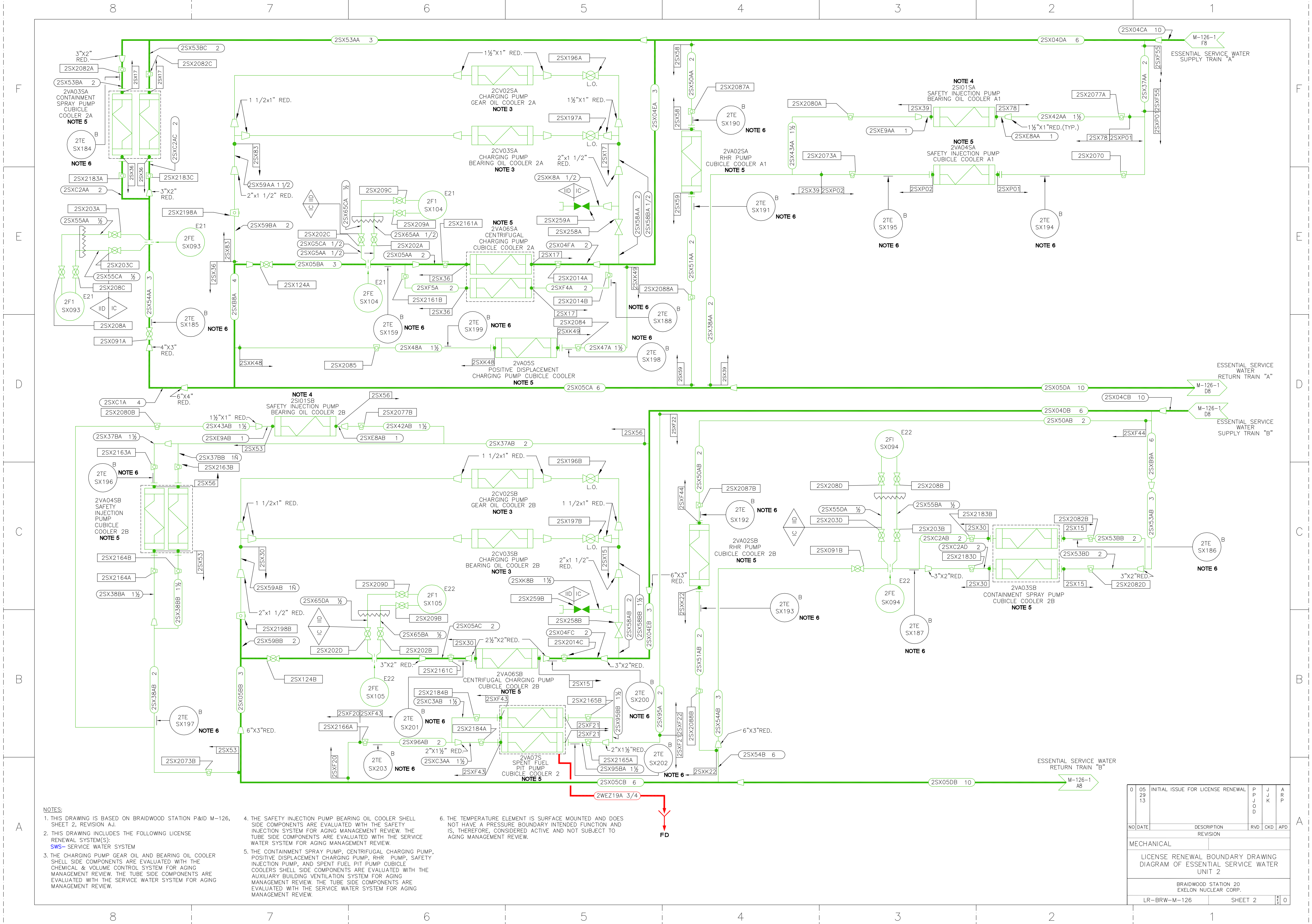




- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-126, SHEET 1, REVISION BN.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 AFW- AUXILIARY FEEDWATER SYSTEM  
 RMS- RADIATION MONITORING SYSTEM  
 SWS- SERVICE WATER SYSTEM
  - THE AFW CUBICLE COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE AFW JACKET WATER COOLER SHELL SIDE COMPONENTS AND THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE EDG JACKET WATER UPPER COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE EDG JACKET WATER LOWER COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE CHILLED WATER SYSTEM PRIMARY CONTAINMENT REFRIGERATION CONDENSER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHILLED WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - THE AFW MOTOR-DRIVEN PUMP LUBE OIL COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE AFW GEAR BOX/SPEED INCREASER LUBE OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE AFW DIESEL-DRIVEN PUMP LUBE OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE AFW RIGHT ANGLE GEAR OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
		J	J	K	P
		O	D		
NO/DATE	DESCRIPTION	RVD	CKD	APD	
	REVISION				
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF ESSENTIAL SERVICE WATER UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-126 SHEET 1 0					

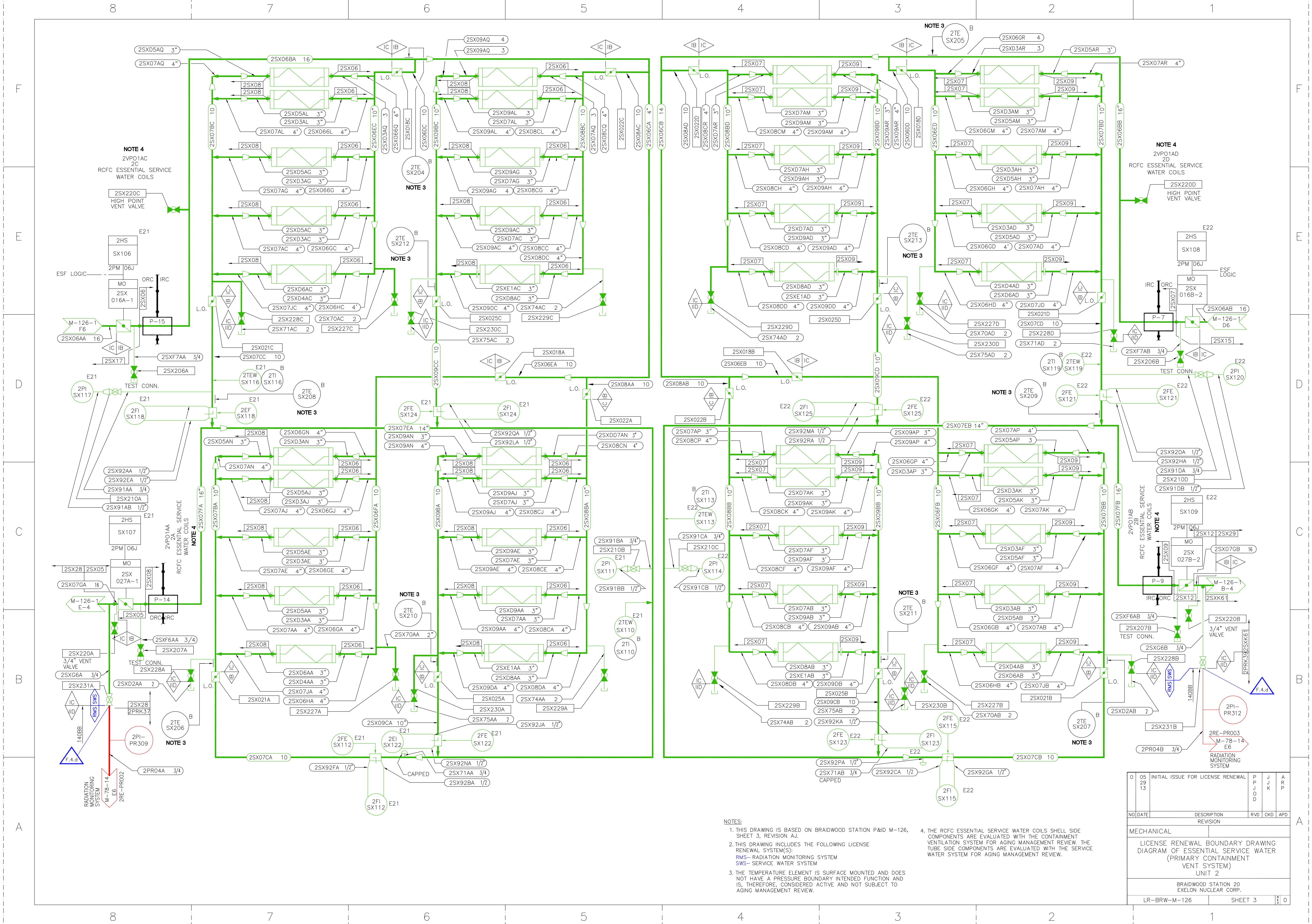




- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-126, SHEET 2, REVISION AJ.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SWS - SERVICE WATER SYSTEM
  - THE CHARGING PUMP GEAR OIL AND BEARING OIL COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE SAFETY INJECTION PUMP BEARING OIL COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE SAFETY INJECTION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE CONTAINMENT SPRAY PUMP, CENTRIFUGAL CHARGING PUMP, POSITIVE DISPLACEMENT CHARGING PUMP, RHR PUMP, SAFETY INJECTION PUMP, AND SPENT FUEL PIT PUMP CUBICLE COOLERS SHELL SIDE COMPONENTS ARE EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		J	J	R
			O	K	P
			D		
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF ESSENTIAL SERVICE WATER					
UNIT 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-126		SHEET 2	0		





**NOTE 4**  
2VPO1AC  
20  
RCFC ESSENTIAL SERVICE  
WATER COILS

**NOTE 4**  
2VPO1AD  
20  
RCFC ESSENTIAL SERVICE  
WATER COILS

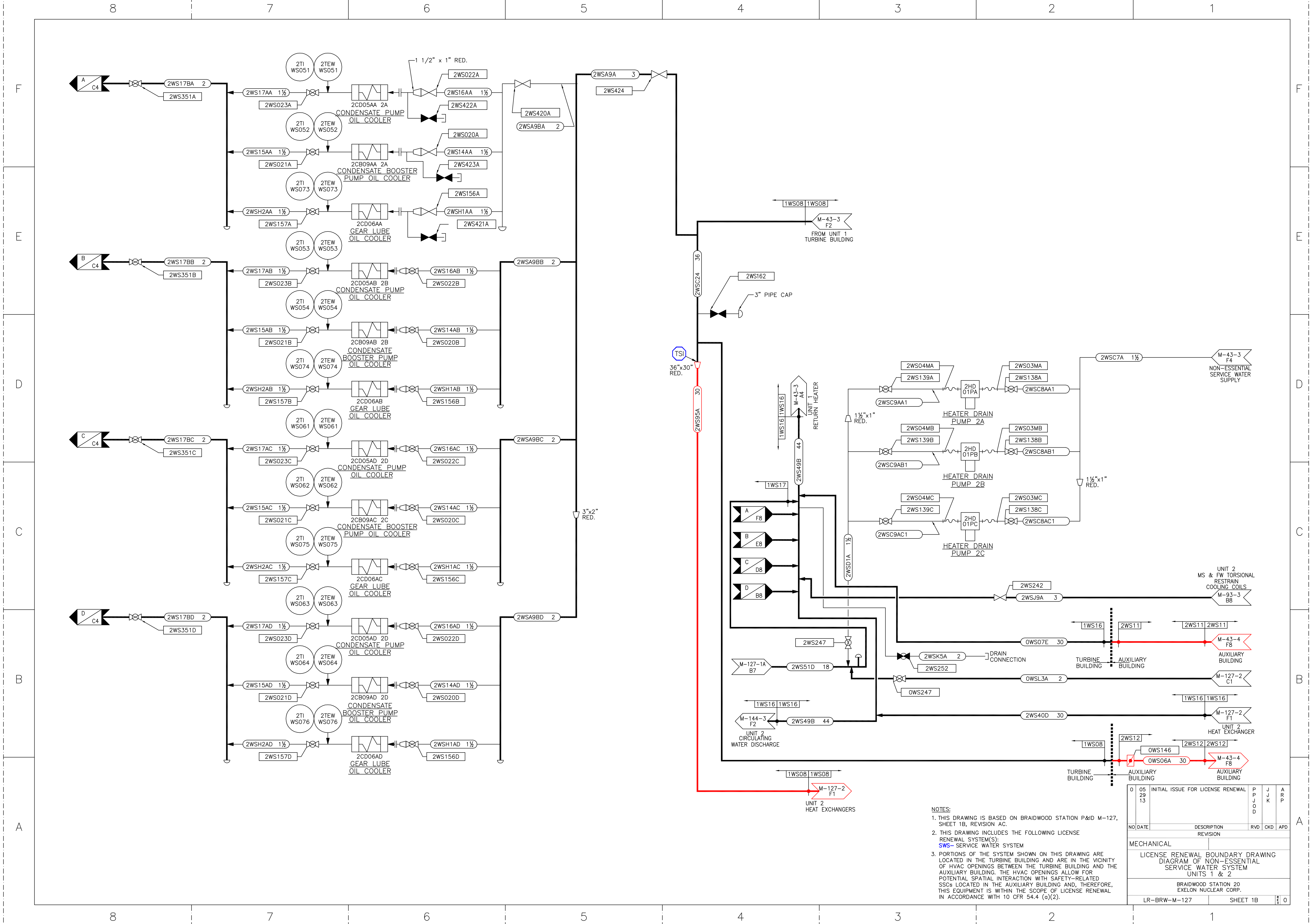
**NOTE 4**  
2VPO1AA  
20  
RCFC ESSENTIAL SERVICE  
WATER COILS

**NOTE 4**  
2VPO1AB  
20  
RCFC ESSENTIAL SERVICE  
WATER COILS

- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&D M-126, SHEET 3, REVISION A.J.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S)  
RMS- RADIATION MONITORING SYSTEM  
SWS- SERVICE WATER SYSTEM
  - THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - THE RCFC ESSENTIAL SERVICE WATER COILS SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CONTAINMENT VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
					P	J	A	R
					J	K		
					D			
NO. DATE				DESCRIPTION	RVD	CKD	APD	
				REVISION				
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF ESSENTIAL SERVICE WATER								
(PRIMARY CONTAINMENT								
VENT SYSTEM)								
UNIT 2								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-126				SHEET 3				0





NOTES:

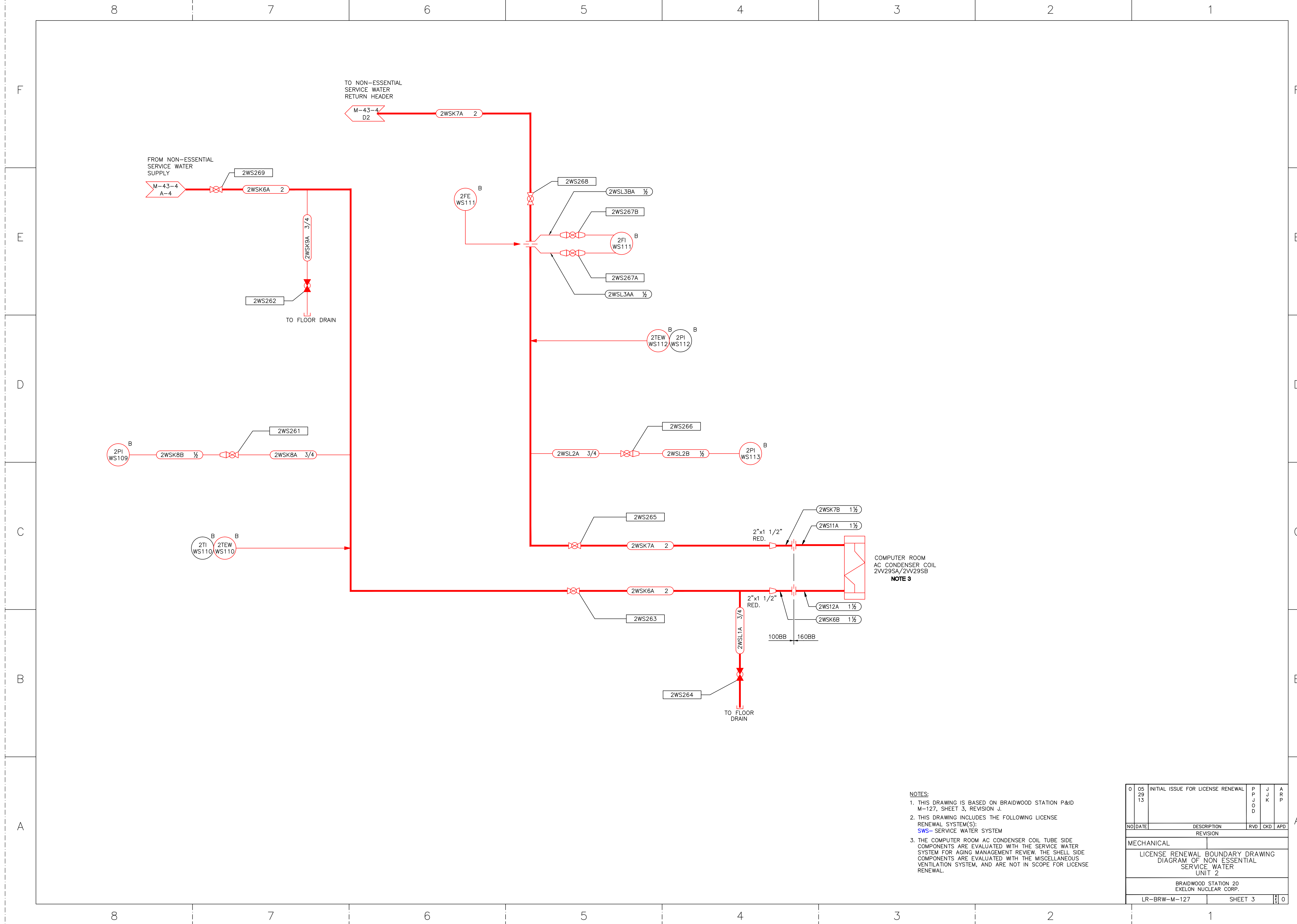
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-127, SHEET 1B, REVISION AC.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SWS- SERVICE WATER SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (c)(2).

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
				J	K	R
				O	D	P
NO DATE			DESCRIPTION	RVD	CKD	APD
			REVISION			
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF NON-ESSENTIAL						
SERVICE WATER SYSTEM						
UNITS 1 & 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-127				SHEET 1B		0





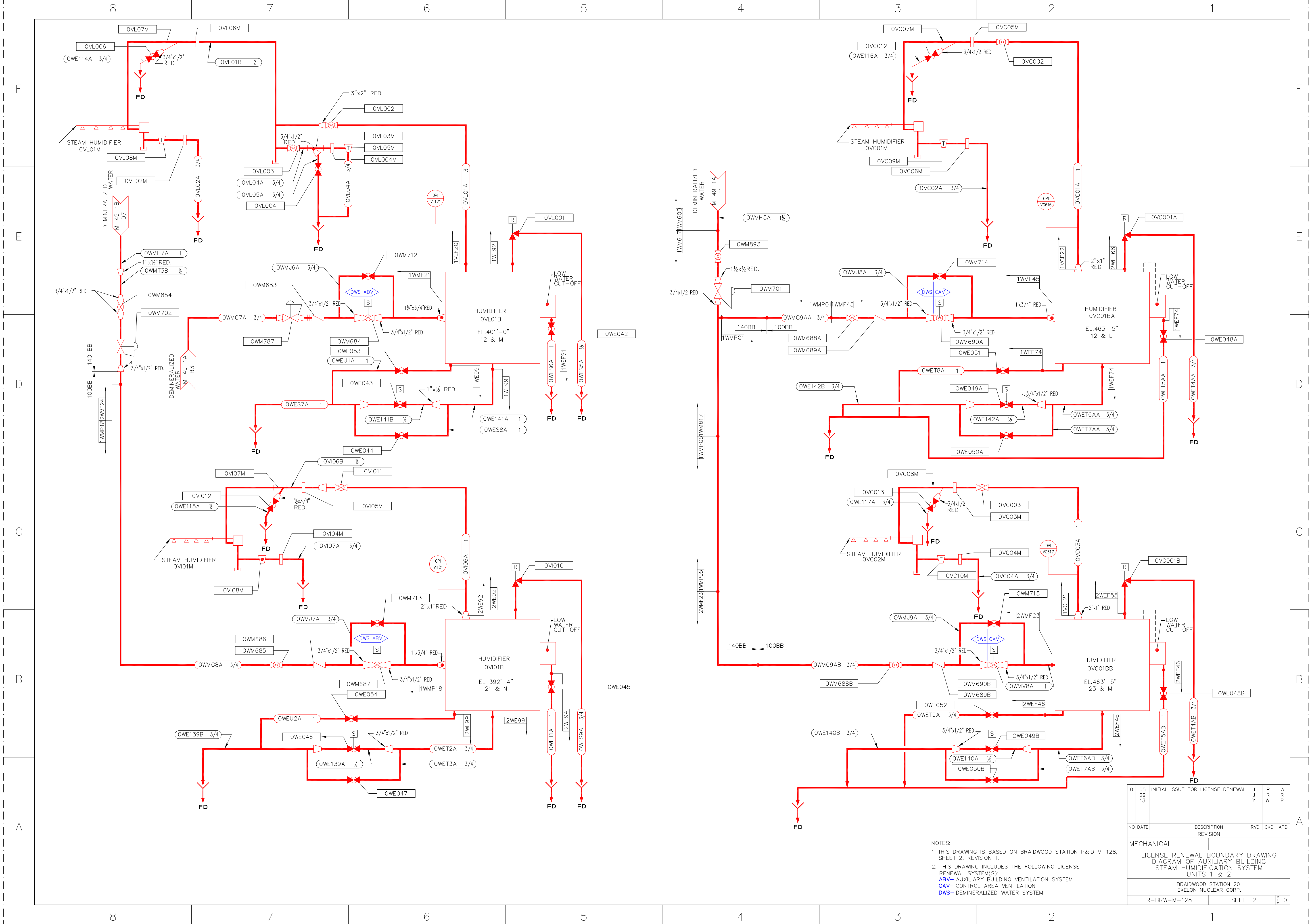




COMPUTER ROOM  
AC CONDENSER COIL  
2W29SA/2W29SB  
**NOTE 3**

- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-127, SHEET 3, REVISION J.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SWS- SERVICE WATER SYSTEM
  3. THE COMPUTER ROOM AC CONDENSER COIL TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW. THE SHELL SIDE COMPONENTS ARE EVALUATED WITH THE MISCELLANEOUS VENTILATION SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.

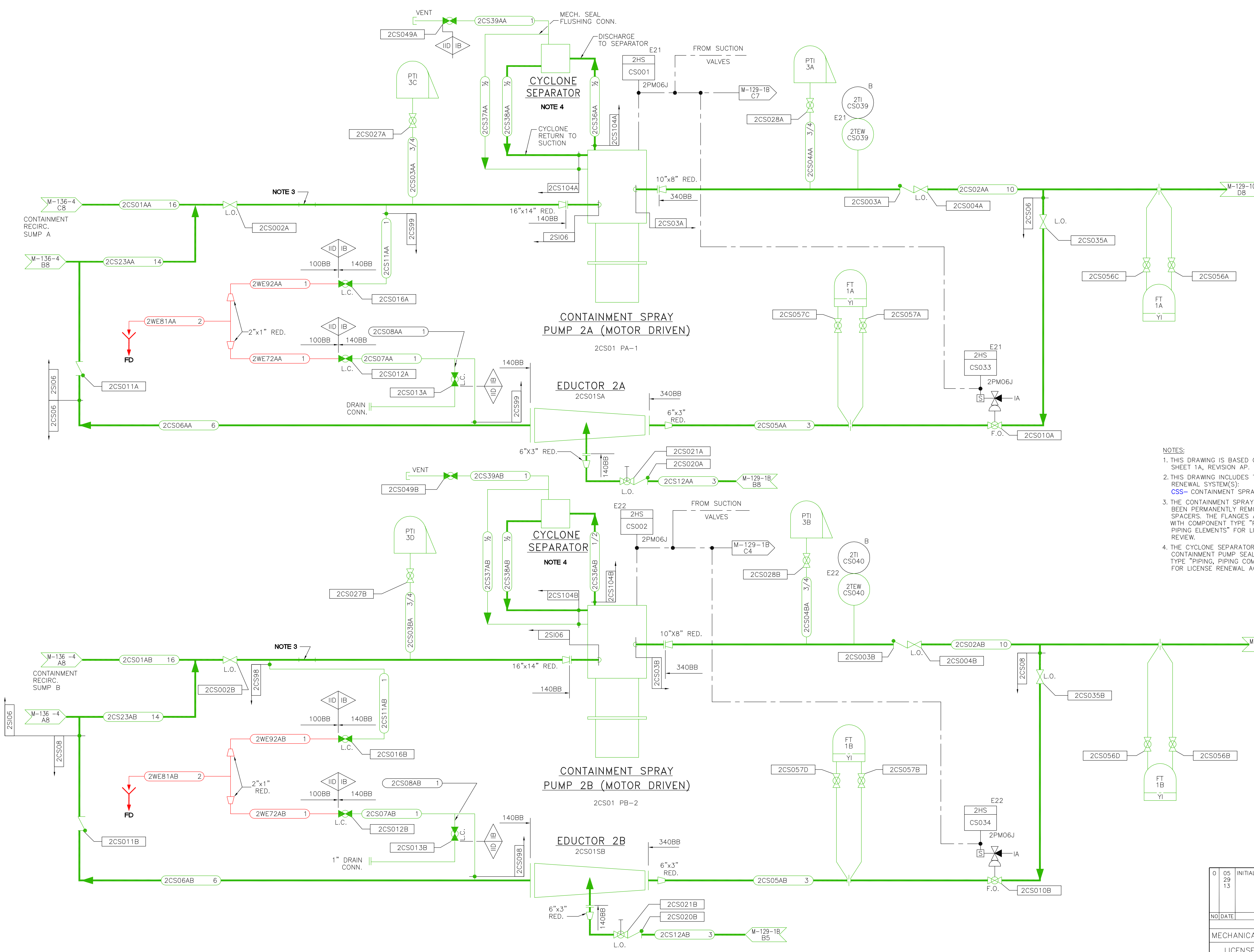
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		P	J	R
			J	K	P
			O	D	
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF NON ESSENTIAL SERVICE WATER UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-127			SHEET 3		0



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-128, SHEET 2, REVISION 1.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CAV- CONTROL AREA VENTILATION  
 DWS- DEMINERALIZED WATER SYSTEM

05	INITIAL ISSUE FOR LICENSE RENEWAL	J	P	A	
29		Y	R	R	
13			W	P	
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING OF AUXILIARY BUILDING STEAM HUMIDIFICATION SYSTEM UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-128 SHEET 2 0					





- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-129, SHEET 1A, REVISION AP.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CSS- CONTAINMENT SPRAY SYSTEM
  3. THE CONTAINMENT SPRAY SYSTEM STARTUP STRAINERS HAVE BEEN PERMANENTLY REMOVED AND REPLACED WITH RING SPACERS. THE FLANGES AND RING SPACERS ARE INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE CYCLONE SEPARATOR AND ASSOCIATED PIPING ON THE CONTAINMENT PUMP SEALS ARE INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J O D	J J K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING CONTAINMENT SPRAY UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-129	SHEET 1A	0		

8

7

6

5

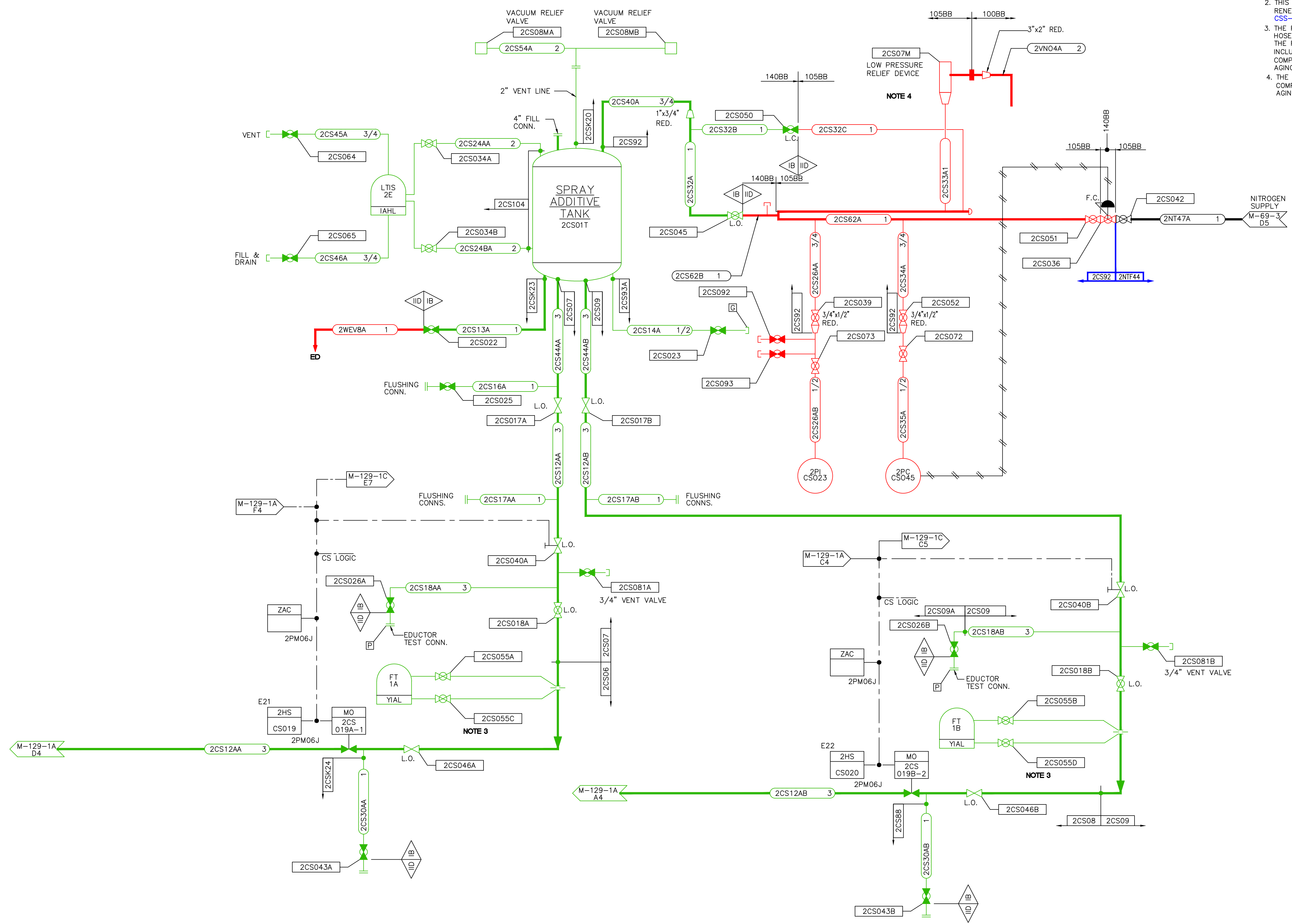
4

3

2

1

- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-129, SHEET 1B, REVISION AV.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CSS- CONTAINMENT SPRAY SYSTEM
  3. THE FLOW TRANSMITTER HAS FLEXIBLE STAINLESS STEEL HOSES INSTALLED PERMANENTLY TO REDUCE VIBRATION TO THE FLOW INSTRUMENTS. THE STAINLESS STEEL HOSES ARE INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE LOW PRESSURE RELIEF DEVICE IS INCLUDED WITH COMPONENT TYPE "VALVE BODY" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.



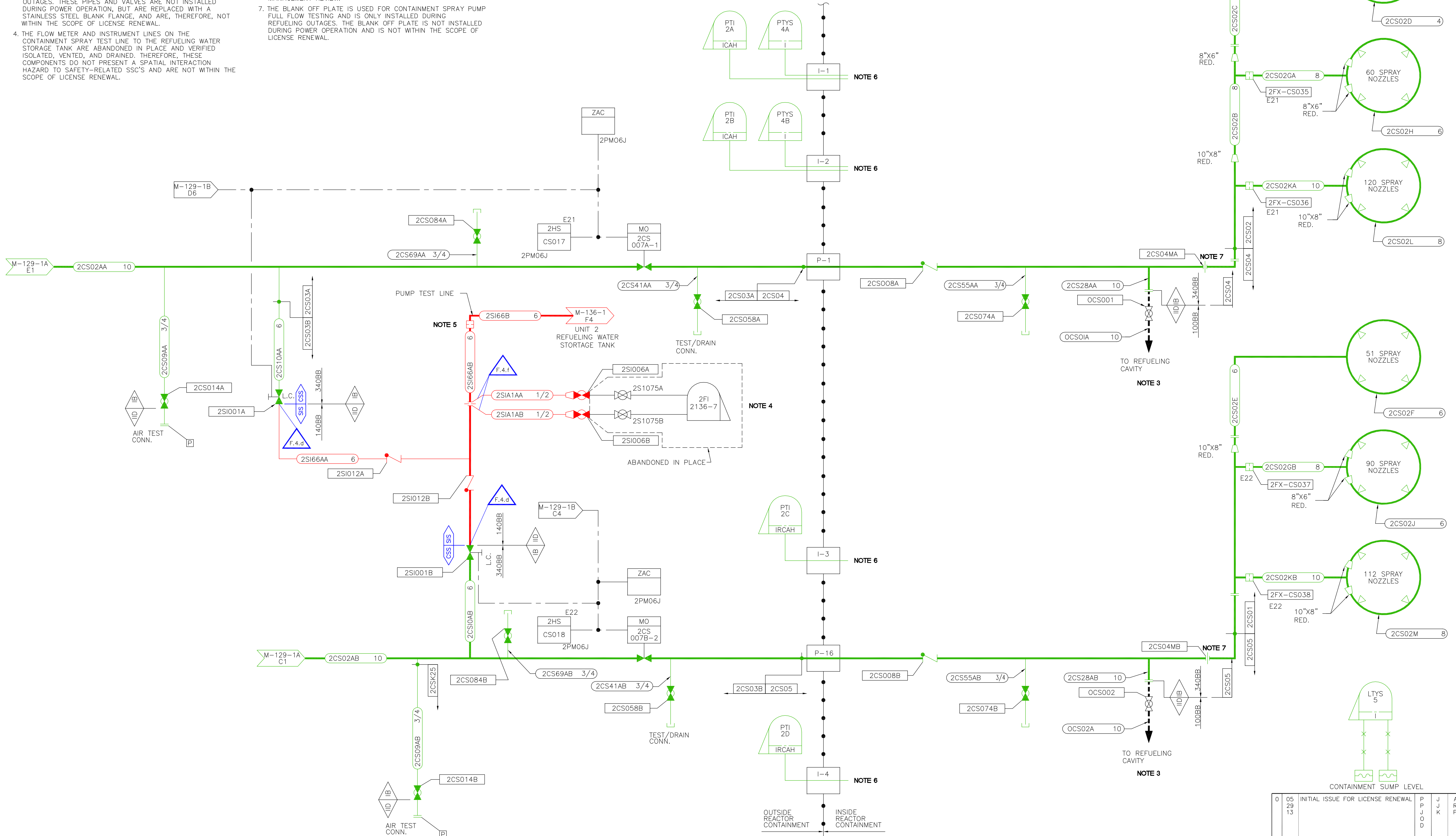
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		J	J	R
			O	K	P
			D		
NO	DATE	DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
CONTAINMENT SPRAY					
UNIT 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-129		SHEET 1B		0	



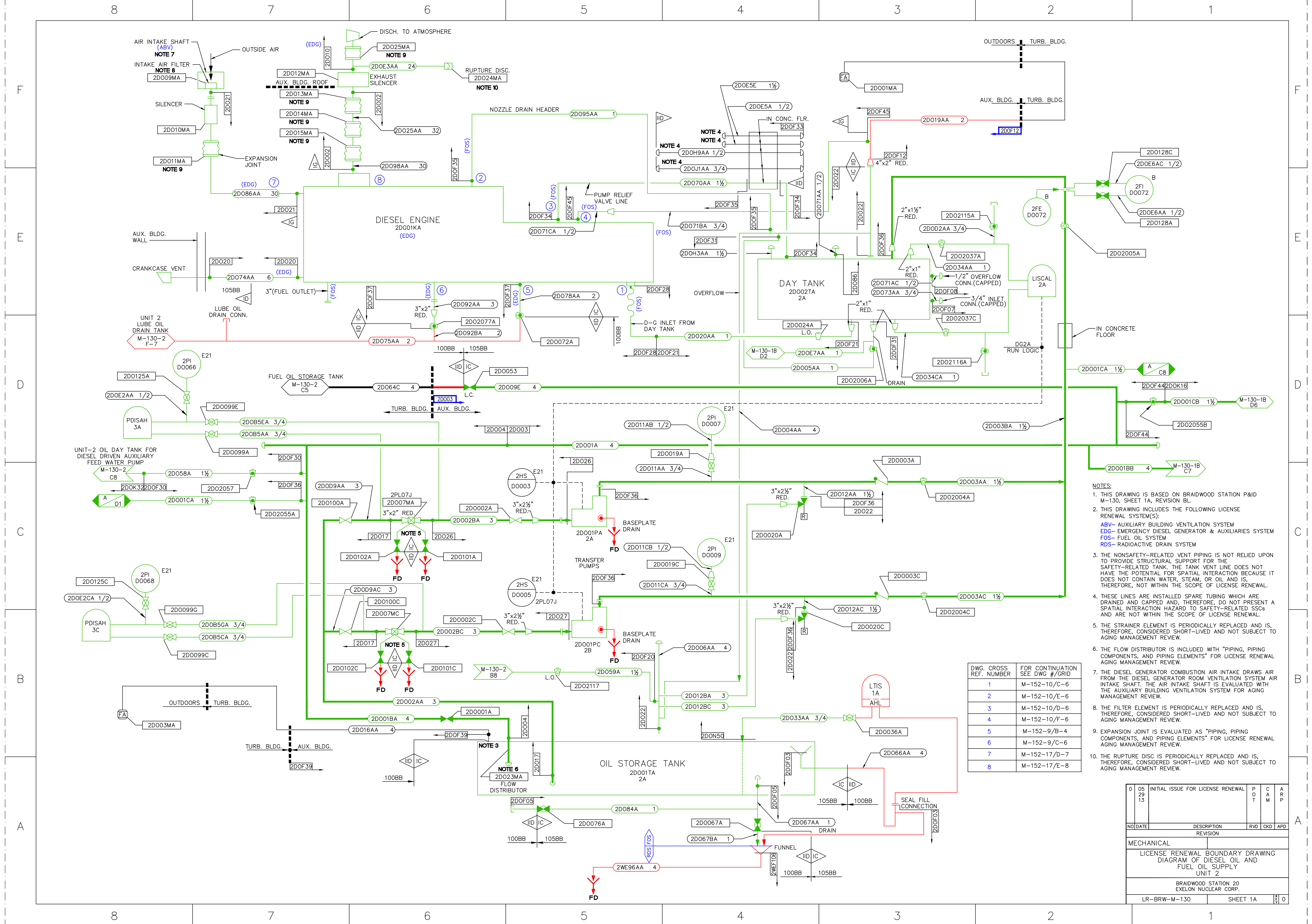
NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-129, SHEET 1C, REVISION A0.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CSS- CONTAINMENT SPRAY SYSTEM  
 SIS- SAFETY INJECTION SYSTEM
- THE PIPING AND VALVES ASSOCIATED WITH LINES OCS01A AND OCS02A ARE USED FOR CONTAINMENT SPRAY PUMP FULL FLOW TESTING AND ARE ONLY INSTALLED DURING REFUELING OUTAGES. THESE PIPES AND VALVES ARE NOT INSTALLED DURING POWER OPERATION, BUT ARE REPLACED WITH A STAINLESS STEEL BLANK FLANGE, AND ARE, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
- THE FLOW METER AND INSTRUMENT LINES ON THE CONTAINMENT SPRAY TEST LINE TO THE REFUELING WATER STORAGE TANK ARE ABANDONED IN PLACE AND VERIFIED ISOLATED, VENTED, AND DRAINED. THEREFORE, THESE COMPONENTS DO NOT PRESENT A SPATIAL INTERACTION HAZARD TO SAFETY-RELATED SSC'S AND ARE NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

- THE RESTRICTING ORIFICE IN THIS LINE HAS BEEN REPLACED WITH A SPACER PLATE. THE FLANGE AND SPACER PLATE ARE INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- THESE PRESSURE TRANSMITTERS PROVIDE THE INDICATION AND PROTECTIVE SIGNALS FOR CONTAINMENT PRESSURE. THE BELLOWS AND TUBING ARE INCLUDED IN THE "SENSOR ELEMENT" COMPONENT TYPES FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- THE BLANK OFF PLATE IS USED FOR CONTAINMENT SPRAY PUMP FULL FLOW TESTING AND IS ONLY INSTALLED DURING REFUELING OUTAGES. THE BLANK OFF PLATE IS NOT INSTALLED DURING POWER OPERATION AND IS NOT WITHIN THE SCOPE OF LICENSE RENEWAL.



05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
				P	J	A
				O	K	R
				L	J	P
				D	K	P
NO	DATE		DESCRIPTION	RVD	CKD	APD
			REVISION			
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
CONTAINMENT SPRAY						
UNIT 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-129			SHEET 1C		0	

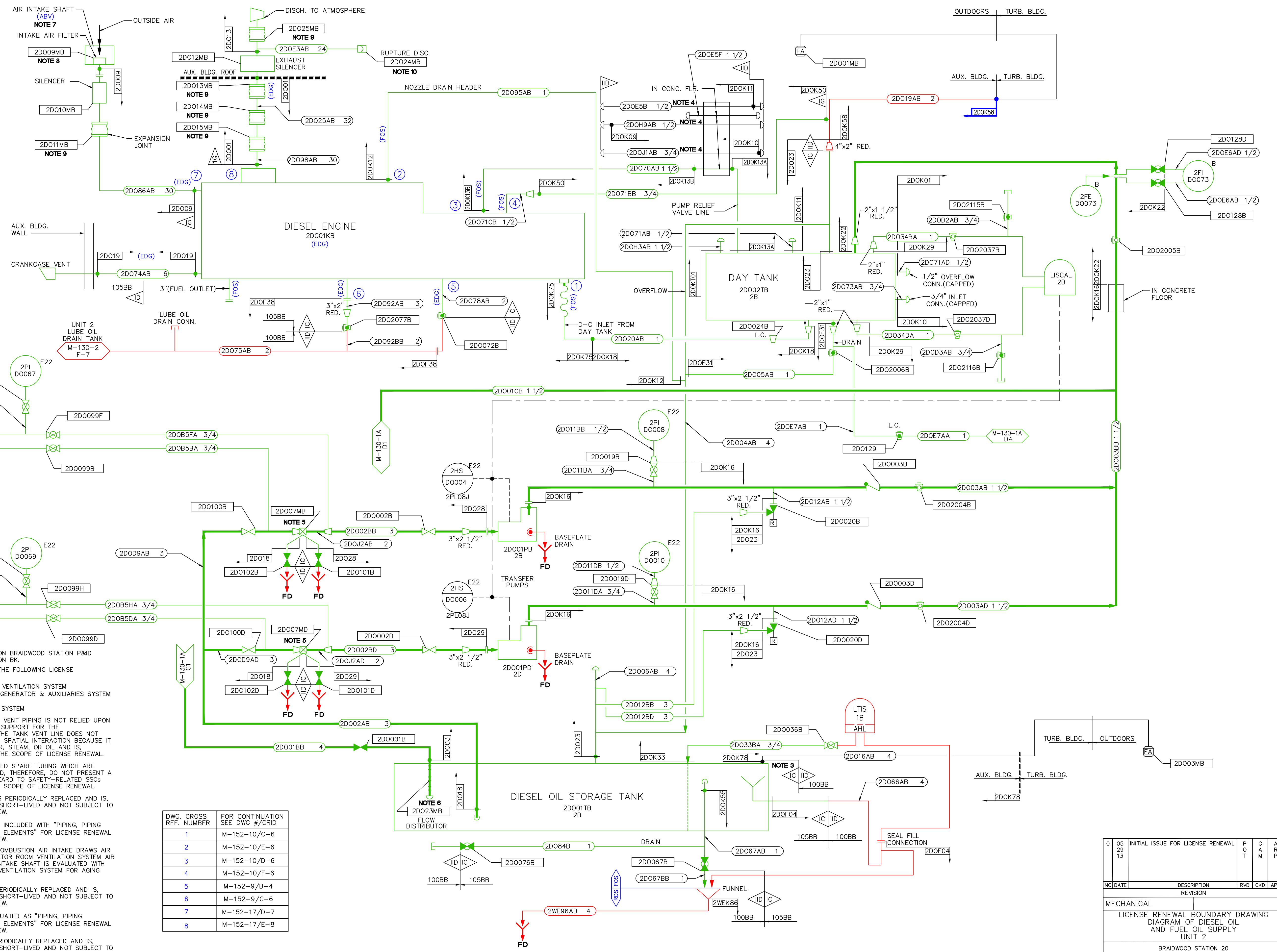


- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-130, SHEET 1A, REVISION BL.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM  
 FOS- FUEL OIL SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM
  - THE NONSAFETY-RELATED VENT PIPING IS NOT RELIED UPON TO PROVIDE STRUCTURAL SUPPORT FOR THE SAFETY-RELATED TANK. THE TANK VENT LINE DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  - THESE LINES ARE INSTALLED SPARE TUBING WHICH ARE DRAINED AND CAPPED AND, THEREFORE, DO NOT PRESENT A SPATIAL INTERACTION HAZARD TO SAFETY-RELATED SSCs AND ARE NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  - THE STRAINER ELEMENT IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - THE FLOW DISTRIBUTOR IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE DIESEL GENERATOR COMBUSTION AIR INTAKE DRAWS AIR FROM THE DIESEL GENERATOR ROOM VENTILATION SYSTEM AIR INTAKE SHAFT. THE AIR INTAKE SHAFT IS EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE FILTER ELEMENT IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - EXPANSION JOINT IS EVALUATED AS "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE RUPTURE DISC IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

DWG. CROSS REF. NUMBER	FOR CONTINUATION SEE DWG #/GRID
1	M-152-10/C-6
2	M-152-10/E-6
3	M-152-10/D-6
4	M-152-10/F-6
5	M-152-9/B-4
6	M-152-9/C-6
7	M-152-17/D-7
8	M-152-17/E-8

05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
		O	T	M	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF DIESEL OIL AND FUEL OIL SUPPLY UNIT 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-130	SHEET 1A	0			



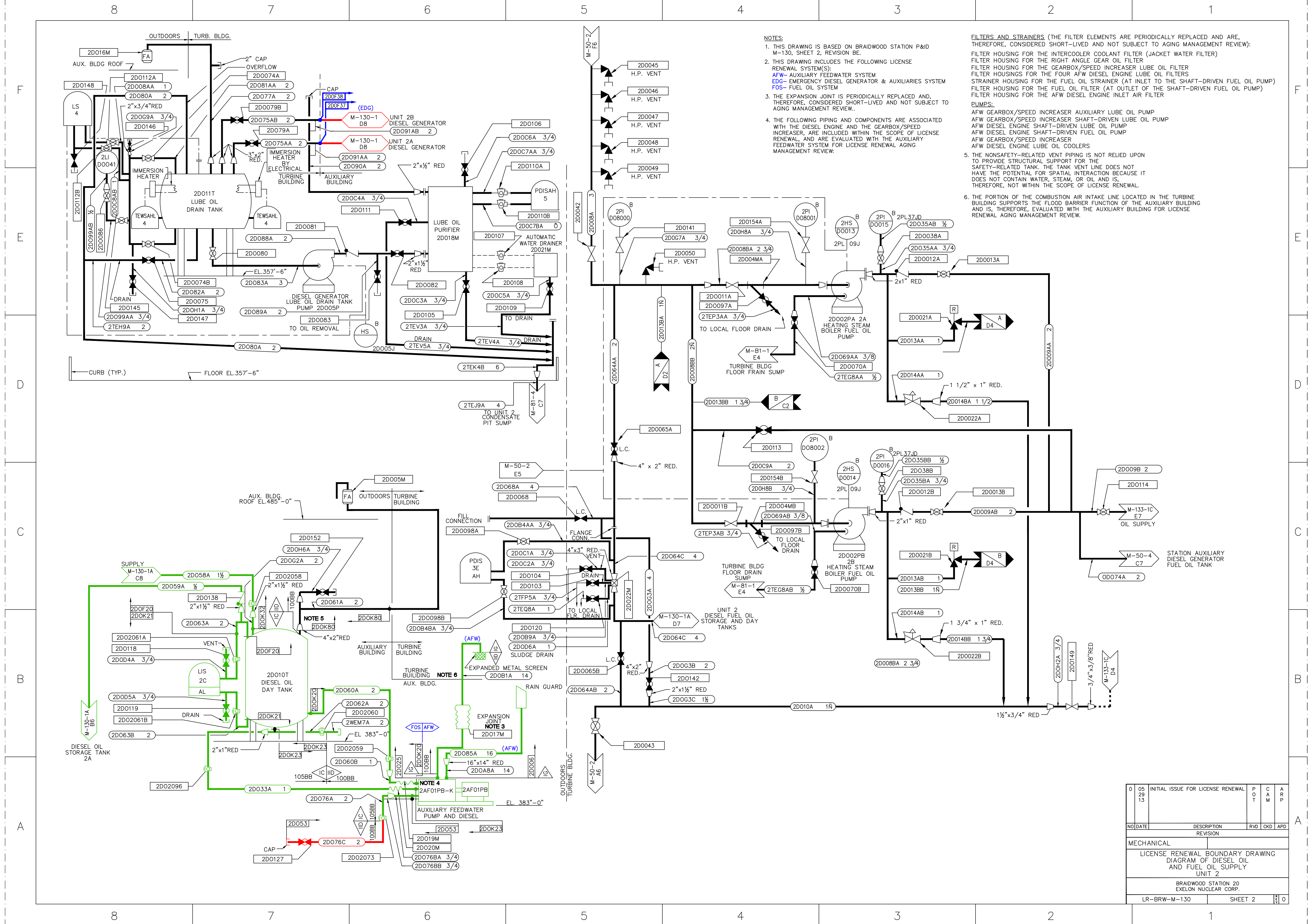


- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-130, SHEET 1B, REVISION BK.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM  
 FOS- FUEL OIL SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM
  3. THE NONSAFETY-RELATED VENT PIPING IS NOT RELIED UPON TO PROVIDE STRUCTURAL SUPPORT FOR THE SAFETY-RELATED TANK. THE TANK VENT LINE DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  4. THESE LINES ARE INSTALLED SPARE TUBING WHICH ARE DRAINED AND CAPPED AND, THEREFORE, DO NOT PRESENT A SPATIAL INTERACTION HAZARD TO SAFETY-RELATED SSCs AND ARE NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  5. THE STRAINER ELEMENT IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  6. THE FLOW DISTRIBUTOR IS INCLUDED WITH "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  7. THE DIESEL GENERATOR COMBUSTION AIR INTAKE DRAWS AIR FROM THE DIESEL GENERATOR ROOM VENTILATION SYSTEM AIR INTAKE SHAFT. THE AIR INTAKE SHAFT IS EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW.
  8. THE FILTER ELEMENT IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  9. EXPANSION JOINT IS EVALUATED AS "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  10. THE RUPTURE DISC IS PERIODICALLY REPLACED AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

DWG. CROSS REF. NUMBER	FOR CONTINUATION SEE DWG #/GRID
1	M-152-10/C-6
2	M-152-10/E-6
3	M-152-10/D-6
4	M-152-10/F-6
5	M-152-9/B-4
6	M-152-9/C-6
7	M-152-17/D-7
8	M-152-17/E-8

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P O T	C A M	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF DIESEL OIL AND FUEL OIL SUPPLY UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-130		SHEET 1B		0



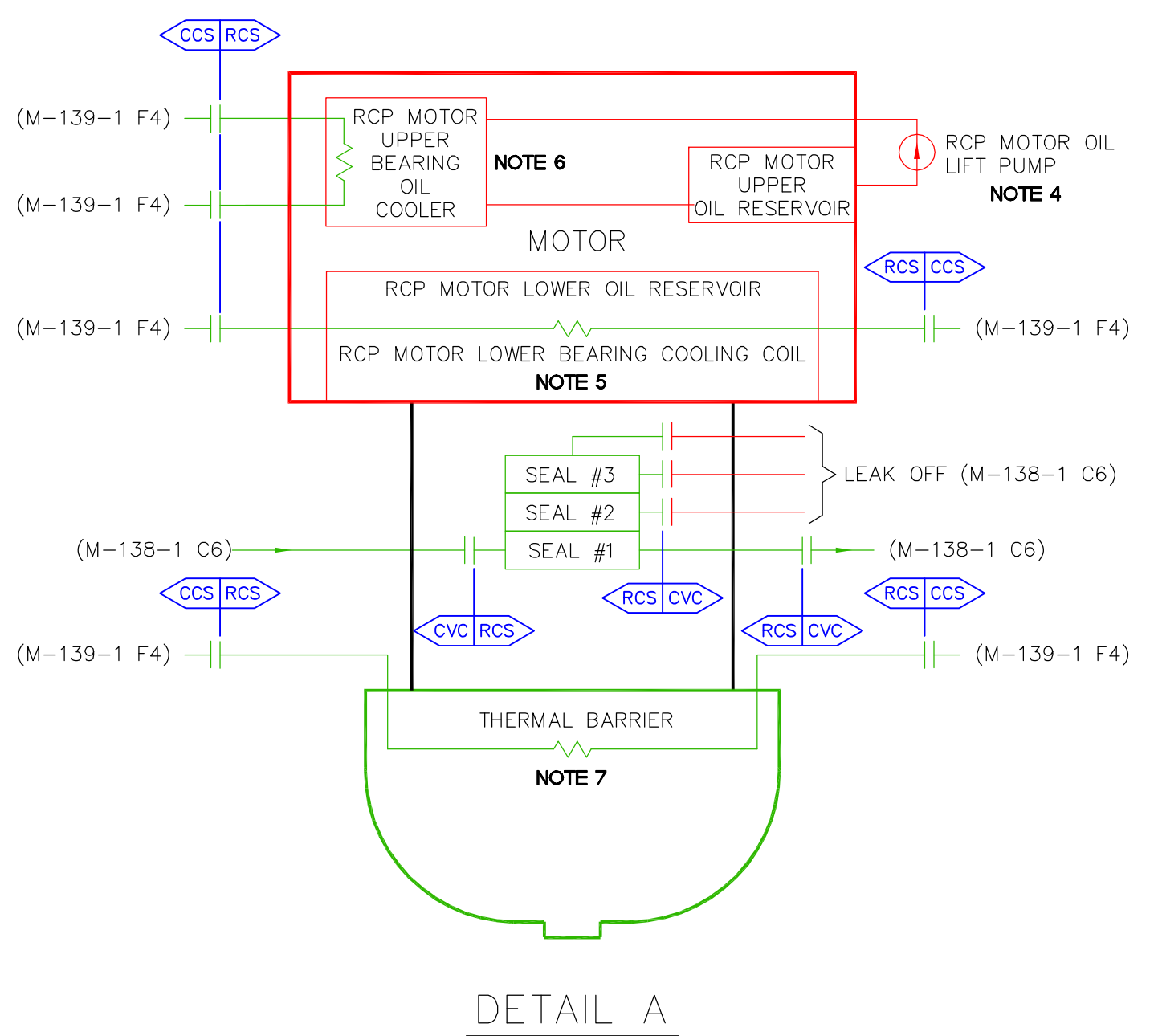
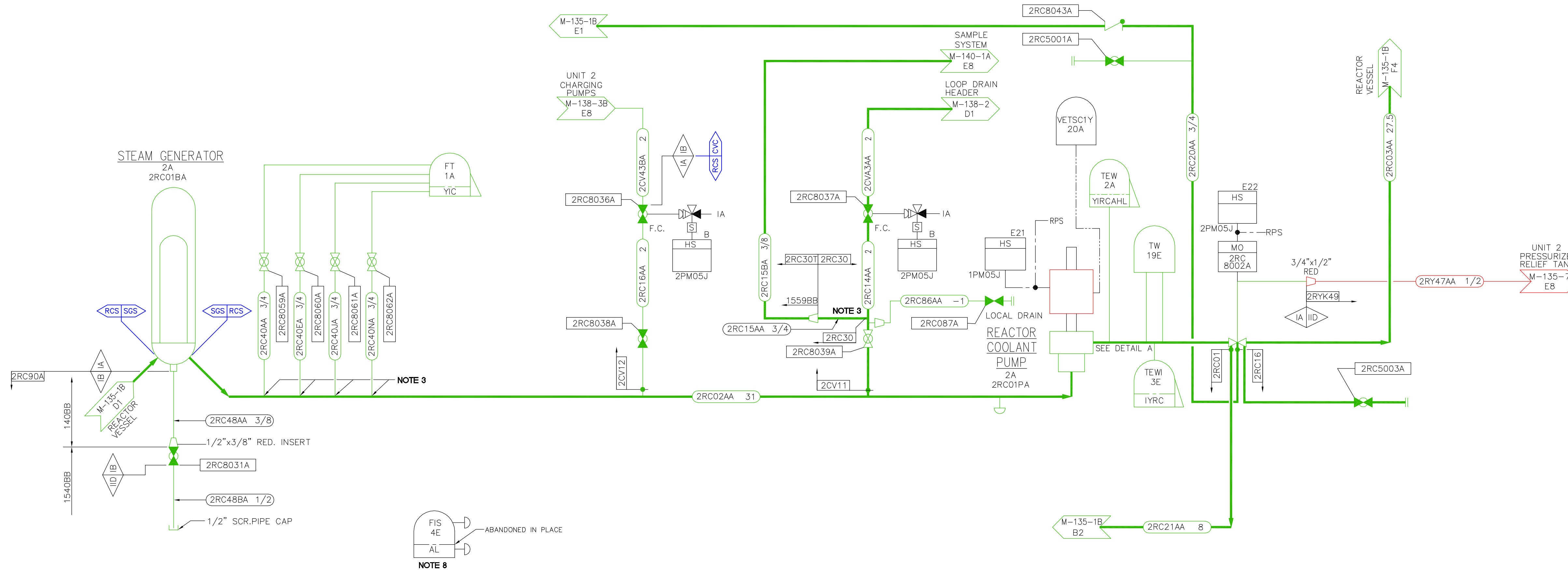


- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-130, SHEET 2, REVISION BE.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 AFW- AUXILIARY FEEDWATER SYSTEM  
 EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM  
 FOS- FUEL OIL SYSTEM
  - THE EXPANSION JOINT IS PERIODICALLY REPLACED AND, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - THE FOLLOWING PIPING AND COMPONENTS ARE ASSOCIATED WITH THE DIESEL ENGINE AND THE GEARBOX/SPEED INCREASER, ARE INCLUDED WITHIN THE SCOPE OF LICENSE RENEWAL, AND ARE EVALUATED WITH THE AUXILIARY FEEDWATER SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW:

- FILTERS AND STRAINERS (THE FILTER ELEMENTS ARE PERIODICALLY REPLACED AND ARE, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW):
- FILTER HOUSING FOR THE INTERCOOLER COOLANT FILTER (JACKET WATER FILTER)
  - FILTER HOUSING FOR THE RIGHT ANGLE GEAR OIL FILTER
  - FILTER HOUSING FOR THE GEARBOX/SPEED INCREASER LUBE OIL FILTER
  - FILTER HOUSINGS FOR THE FOUR AFW DIESEL ENGINE LUBE OIL FILTERS
  - STRAINER HOUSING FOR THE FUEL OIL STRAINER (AT INLET TO THE SHAFT-DRIVEN FUEL OIL PUMP)
  - FILTER HOUSING FOR THE FUEL OIL FILTER (AT OUTLET OF THE SHAFT-DRIVEN FUEL OIL PUMP)
  - FILTER HOUSING FOR THE AFW DIESEL ENGINE INLET AIR FILTER
- PUMPS:
- AFW GEARBOX/SPEED INCREASER AUXILIARY LUBE OIL PUMP
  - AFW GEARBOX/SPEED INCREASER SHAFT-DRIVEN LUBE OIL PUMP
  - AFW DIESEL ENGINE SHAFT-DRIVEN LUBE OIL PUMP
  - AFW DIESEL ENGINE SHAFT-DRIVEN FUEL OIL PUMP
  - AFW GEARBOX/SPEED INCREASER
  - AFW DIESEL ENGINE LUBE OIL COOLERS
- THE NONSAFETY-RELATED VENT PIPING IS NOT RELIED UPON TO PROVIDE STRUCTURAL SUPPORT FOR THE SAFETY-RELATED TANK. THE TANK VENT LINE DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
  - THE PORTION OF THE COMBUSTION AIR INTAKE LINE LOCATED IN THE TURBINE BUILDING SUPPORTS THE FLOOD BARRIER FUNCTION OF THE AUXILIARY BUILDING AND IS, THEREFORE, EVALUATED WITH THE AUXILIARY BUILDING FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

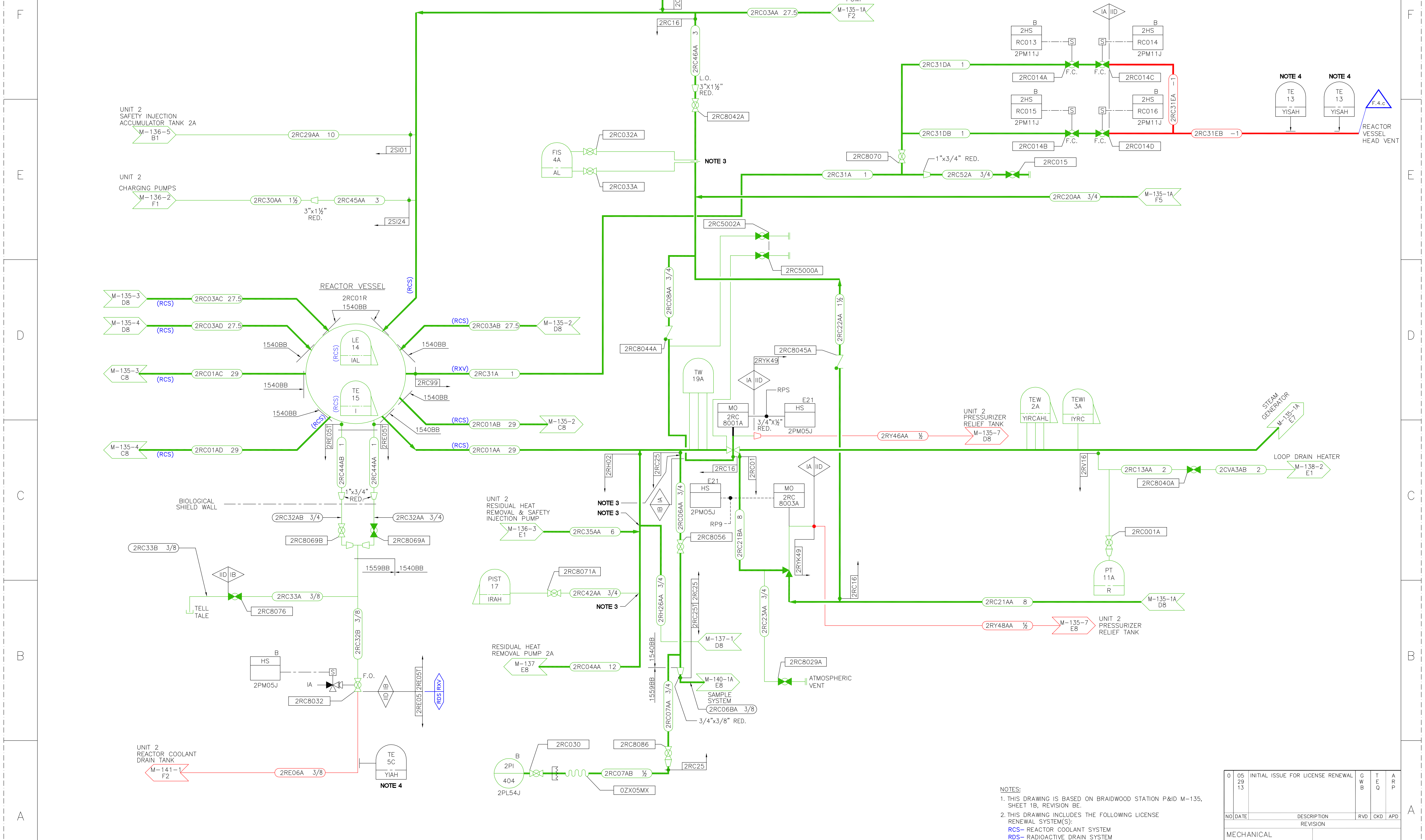
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
29	13		O	A	M	P
NO DATE		DESCRIPTION	RVD	CKD	APD	
REVISION						
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF DIESEL OIL						
AND FUEL OIL SUPPLY						
UNIT 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-130						
SHEET 2						0





- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-135, SHEET 1A, REVISION BD.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS- COMPONENT COOLING SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 SGS- STEAM GENERATORS
  - RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.
  - INCLUDED IN THE REACTOR COOLANT PUMP MOTOR OIL LIFT SYSTEM ARE VALVES, STRAINER BODIES, FILTER HOUSINGS, AND SIGHT GLASSES.
  - THE REACTOR COOLANT PUMP MOTOR LOWER BEARING COOLING COIL IS EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW. THE REACTOR COOLANT PUMP MOTOR LOWER BEARING COOLING COIL HAS NO SHELL SIDE COMPONENTS, TUBE SIDE COMPONENTS OR TUBE SHEET.
  - THE REACTOR COOLANT PUMP MOTOR UPPER BEARING OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE REACTOR COOLANT PUMP THERMAL BARRIER HEAT EXCHANGER IS EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW. THE REACTOR COOLANT PUMP THERMAL BARRIER HEAT EXCHANGER HAS NO SHELL SIDE COMPONENTS, TUBE SIDE COMPONENTS OR TUBE SHEET.
  - THE PRESSURE INSTRUMENT IS ABANDONED IN PLACE AND VERIFIED IT ISOLATED, VENTED, AND DRAINED, THEREFORE, IT DOES NOT PRESENT A SPATIAL INTERACTION HAZARD TO SAFETY-RELATED SSCs AND IS NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	GWB	TEQ	ARP
NO	DATE		DESCRIPTION	RVD	CKD	APD
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT LOOP - 1 UNIT 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-135			SHEET 1A		0	



UNIT 2 CVCS REGENERATIVE HEAT EXCHANGERS

UNIT 2 SAFETY INJECTION ACCUMULATOR TANK 2A

UNIT 2 CHARGING PUMPS

REACTOR VESSEL

REACTOR COOLANT PUMP

UNIT 2 PRESSURIZER RELIEF TANK

STEAM GENERATOR

LOOP DRAIN HEATER

UNIT 2 RESIDUAL HEAT REMOVAL & SAFETY INJECTION PUMP

RESIDUAL HEAT REMOVAL PUMP 2A

UNIT 2 REACTOR COOLANT DRAIN TANK

NOTE 3

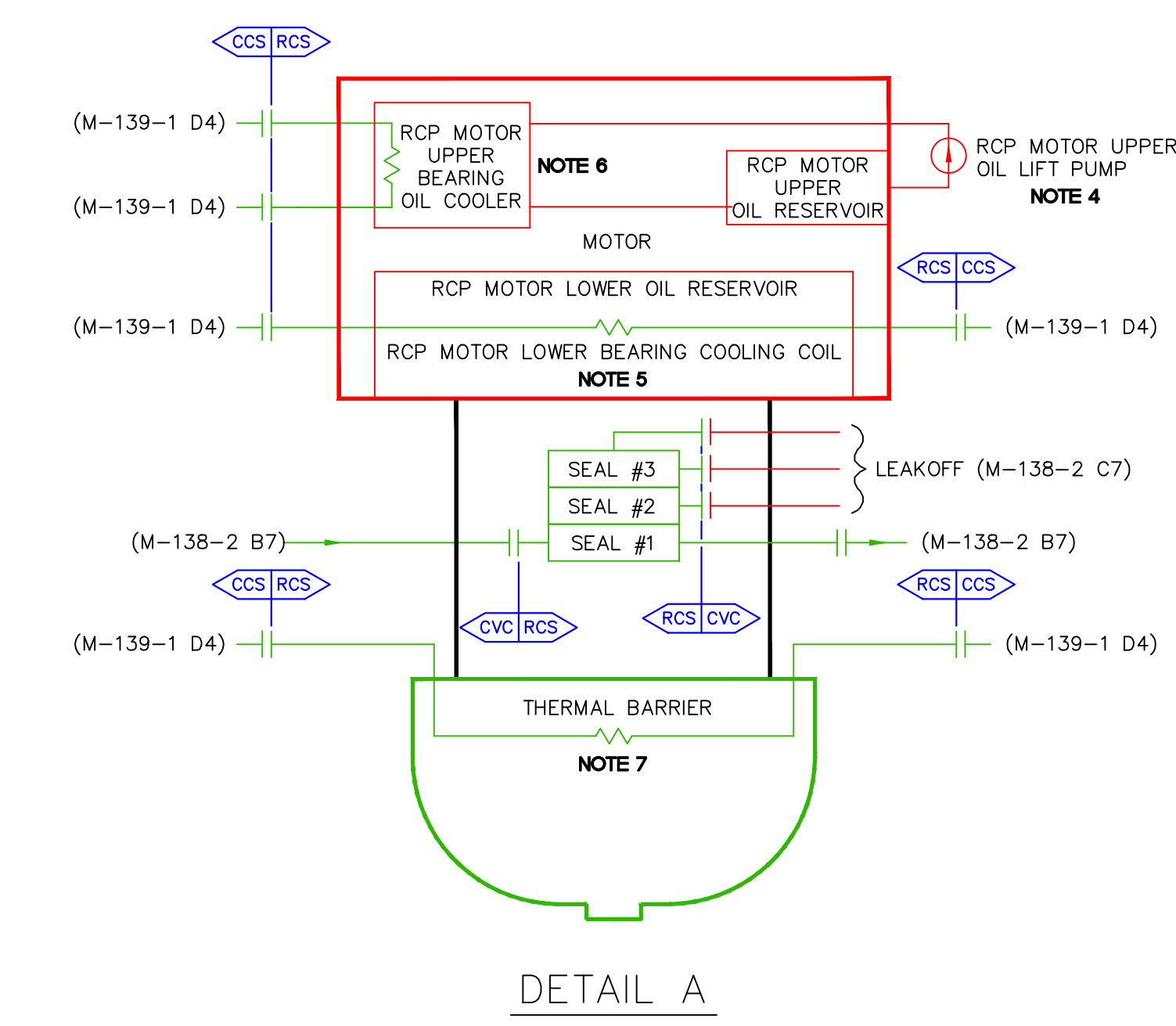
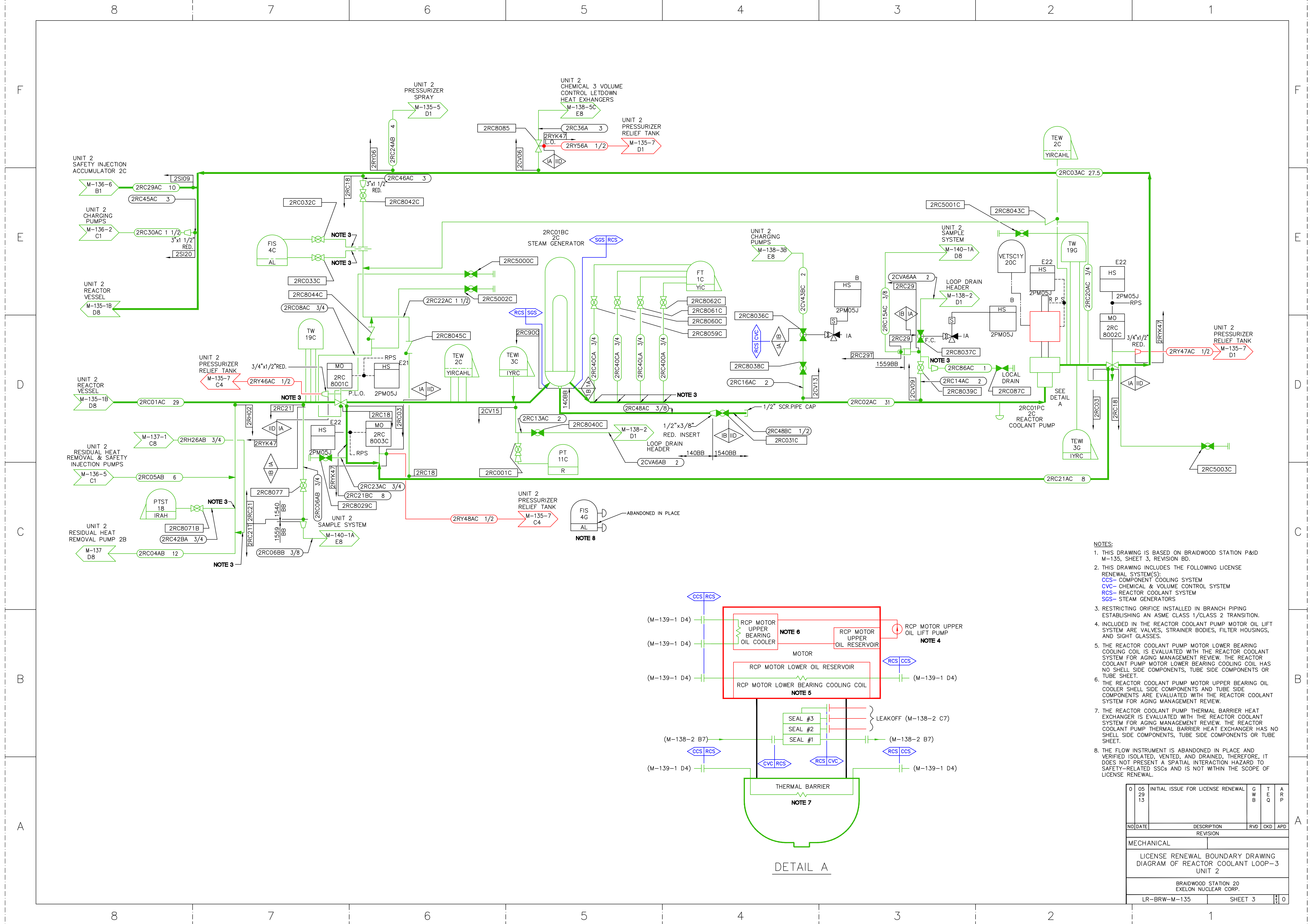
NOTE 4

- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-135, SHEET 1B, REVISION BE.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 RVX- REACTOR VESSEL
  - RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.
  - THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	GWB	TEQ	ARP
NO	DATE	DESCRIPTION	RVD	CKD	APD	
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF REACTOR COOLANT						
LOOP - 1						
UNIT 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-135			SHEET 1B		0	



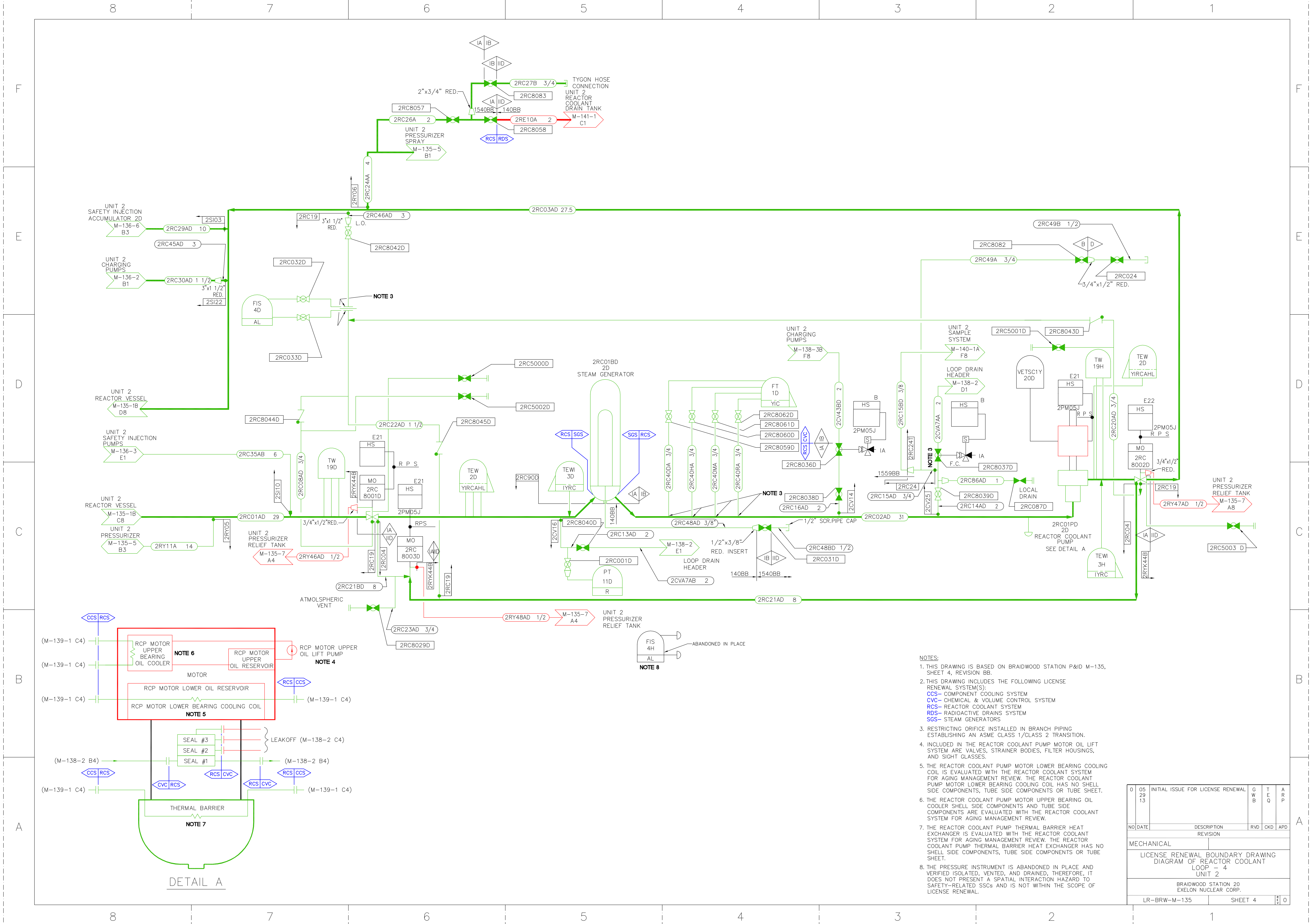




- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-135, SHEET 3, REVISION BD.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS- COMPONENT COOLING SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 SGS- STEAM GENERATORS
  - RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.
  - INCLUDED IN THE REACTOR COOLANT PUMP MOTOR OIL LIFT SYSTEM ARE VALVES, STRAINER BODIES, FILTER HOUSINGS, AND SIGHT GLASSES.
  - THE REACTOR COOLANT PUMP MOTOR LOWER BEARING COOLING COIL IS EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW. THE REACTOR COOLANT PUMP MOTOR LOWER BEARING COOLING COIL HAS NO SHELL SIDE COMPONENTS, TUBE SIDE COMPONENTS OR TUBE SHEET.
  - THE REACTOR COOLANT PUMP MOTOR UPPER BEARING OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE REACTOR COOLANT PUMP THERMAL BARRIER HEAT EXCHANGER IS EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW. THE REACTOR COOLANT PUMP THERMAL BARRIER HEAT EXCHANGER HAS NO SHELL SIDE COMPONENTS, TUBE SIDE COMPONENTS OR TUBE SHEET.
  - THE FLOW INSTRUMENT IS ABANDONED IN PLACE AND VERIFIED ISOLATED, VENTED, AND DRAINED, THEREFORE, IT DOES NOT PRESENT A SPATIAL INTERACTION HAZARD TO SAFETY-RELATED SSCs AND IS NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

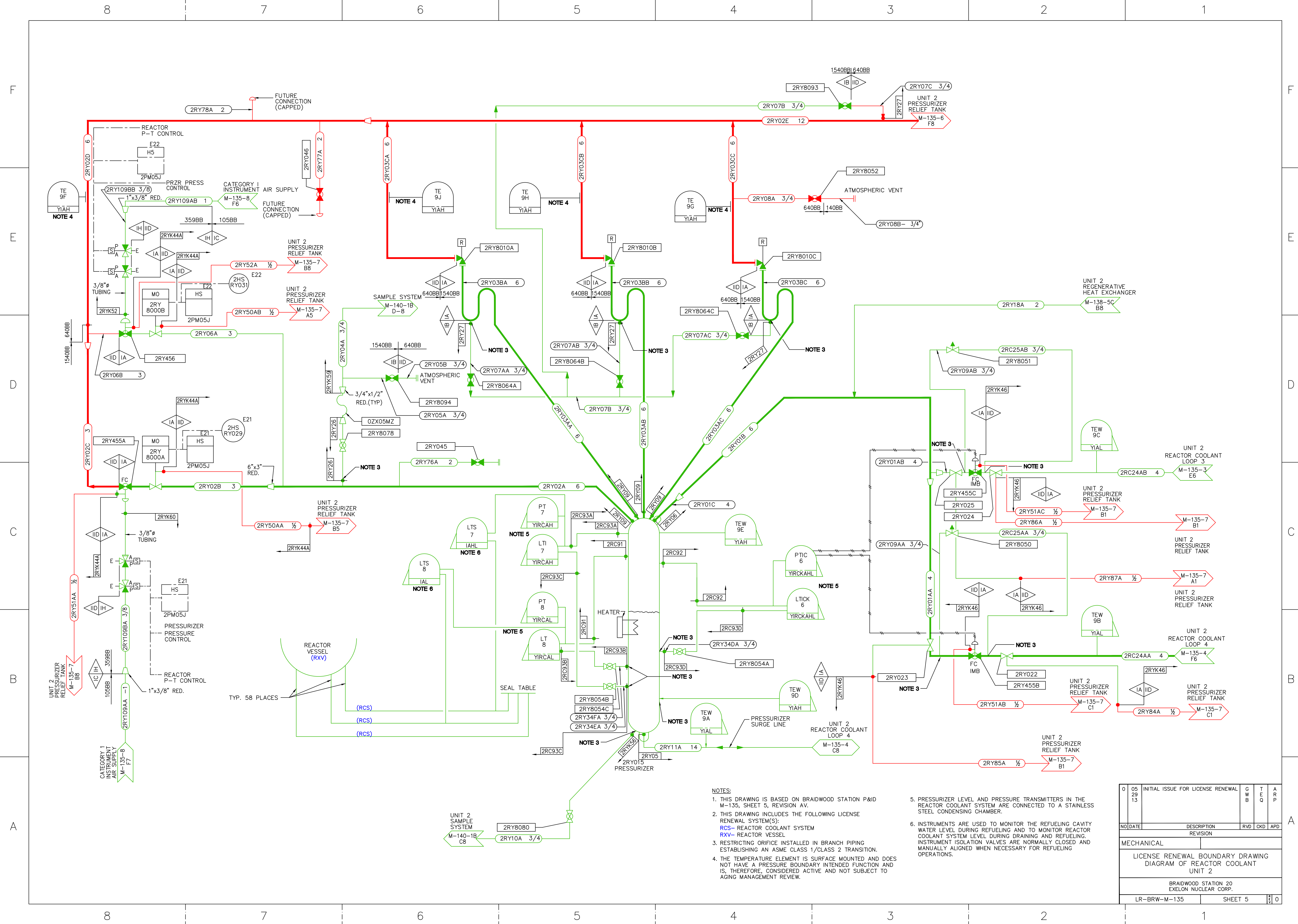
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	G	T	A
29	13		W	E	R
			B	Q	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT LOOP-3 UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-135			SHEET 3		0





- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-135, SHEET 4, REVISION BB.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS- COMPONENT COOLING SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAINS SYSTEM  
 SGS- STEAM GENERATORS
  - RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.
  - INCLUDED IN THE REACTOR COOLANT PUMP MOTOR OIL LIFT SYSTEM ARE VALVES, STRAINER BODIES, FILTER HOUSINGS, AND SIGHT GLASSES.
  - THE REACTOR COOLANT PUMP MOTOR LOWER BEARING COOLING COIL IS EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW. THE REACTOR COOLANT PUMP MOTOR LOWER BEARING COOLING COIL HAS NO SHELL SIDE COMPONENTS, TUBE SIDE COMPONENTS OR TUBE SHEET.
  - THE REACTOR COOLANT PUMP MOTOR UPPER BEARING OIL COOLER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE REACTOR COOLANT PUMP THERMAL BARRIER HEAT EXCHANGER IS EVALUATED WITH THE REACTOR COOLANT SYSTEM FOR AGING MANAGEMENT REVIEW. THE REACTOR COOLANT PUMP THERMAL BARRIER HEAT EXCHANGER HAS NO SHELL SIDE COMPONENTS, TUBE SIDE COMPONENTS OR TUBE SHEET.
  - THE PRESSURE INSTRUMENT IS ABANDONED IN PLACE AND VERIFIED ISOLATED, VENTED, AND DRAINED. THEREFORE, IT DOES NOT PRESENT A SPATIAL INTERACTION HAZARD TO SAFETY-RELATED SSCs AND IS NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	G	W	T	E	A	R
					B	B	Q			P
NO DATE				DESCRIPTION	RVD	CKD	APD			
				REVISION						
MECHANICAL										
LICENSE RENEWAL BOUNDARY DRAWING										
DIAGRAM OF REACTOR COOLANT										
LOOP - 4										
UNIT 2										
BRAIDWOOD STATION 20										
EXELON NUCLEAR CORP.										
LR-BRW-M-135 SHEET 4 0										

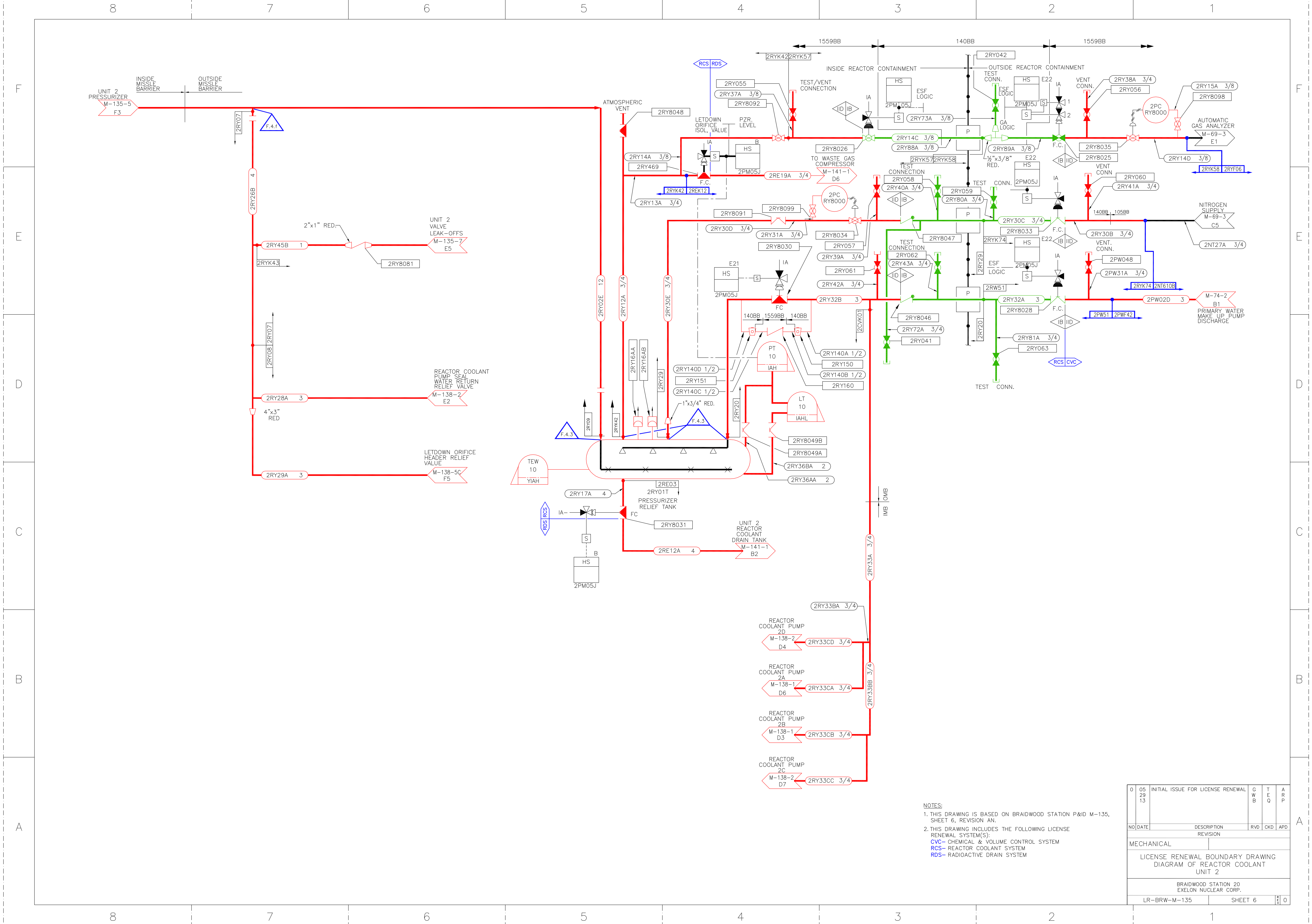


- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-135, SHEET 5, REVISION AV.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 RCS- REACTOR COOLANT SYSTEM  
 RVX- REACTOR VESSEL
  - RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.
  - THE TEMPERATURE ELEMENT IS SURFACE MOUNTED AND DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

- PRESSURIZER LEVEL AND PRESSURE TRANSMITTERS IN THE REACTOR COOLANT SYSTEM ARE CONNECTED TO A STAINLESS STEEL CONDENSING CHAMBER.
- INSTRUMENTS ARE USED TO MONITOR THE REFUELING CAVITY WATER LEVEL DURING REFUELING AND TO MONITOR REACTOR COOLANT SYSTEM LEVEL DURING DRAINING AND REFUELING. INSTRUMENT ISOLATION VALVES ARE NORMALLY CLOSED AND MANUALLY ALIGNED WHEN NECESSARY FOR REFUELING OPERATIONS.

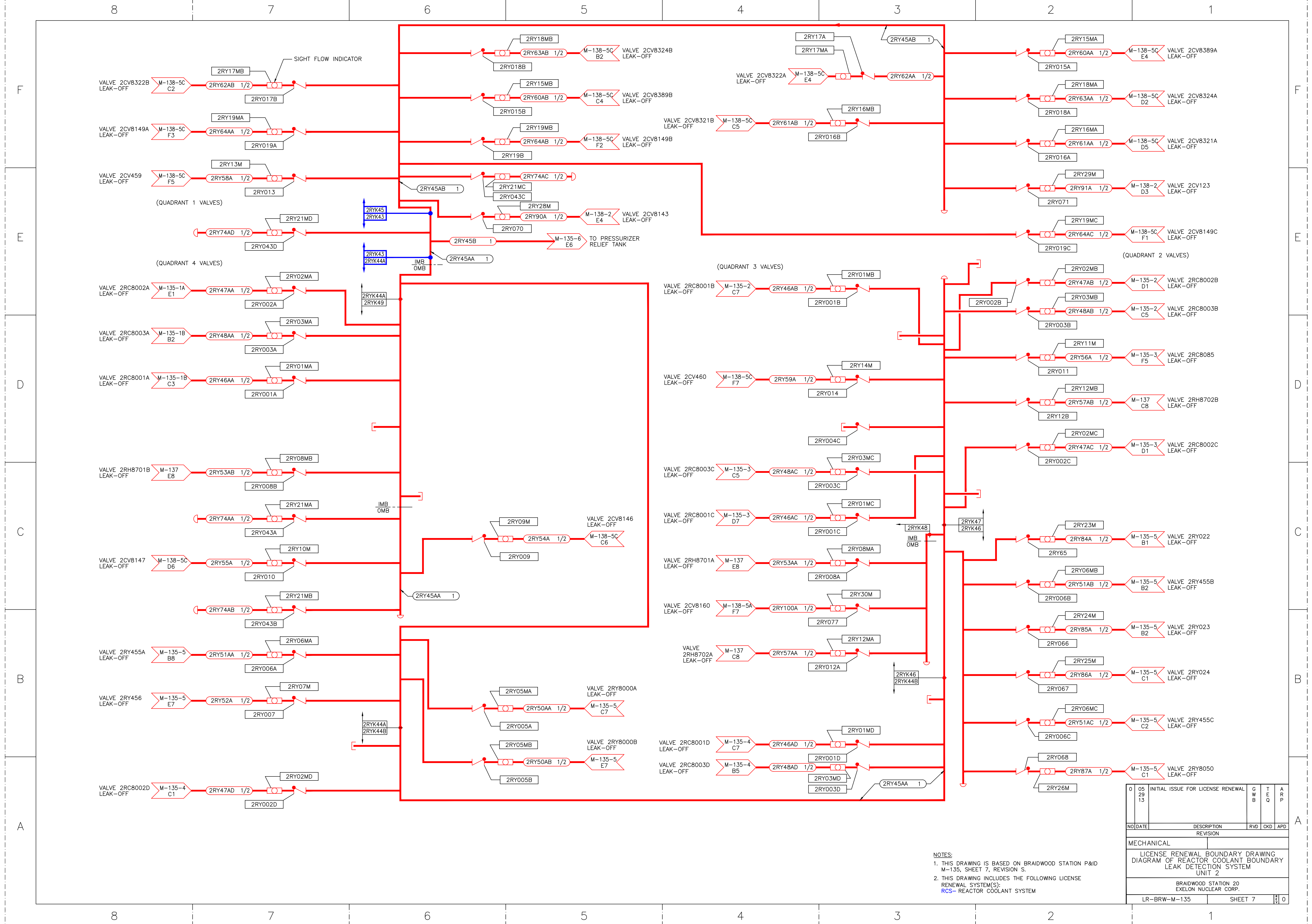
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	G W B	T E Q	A R P
NO/DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-135		SHEET 5		0





NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-135, SHEET 6, REVISION AN.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	C W B	T E Q	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-135		SHEET 6		0



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-135, SHEET 7, REVISION S.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 RCS- REACTOR COOLANT SYSTEM

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	G W B	T E Q	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT SYSTEM LEAK DETECTION SYSTEM UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-135	SHEET 7	0		



8

7

6

5

4

3

2

1

F

F

E

E

D

D

C

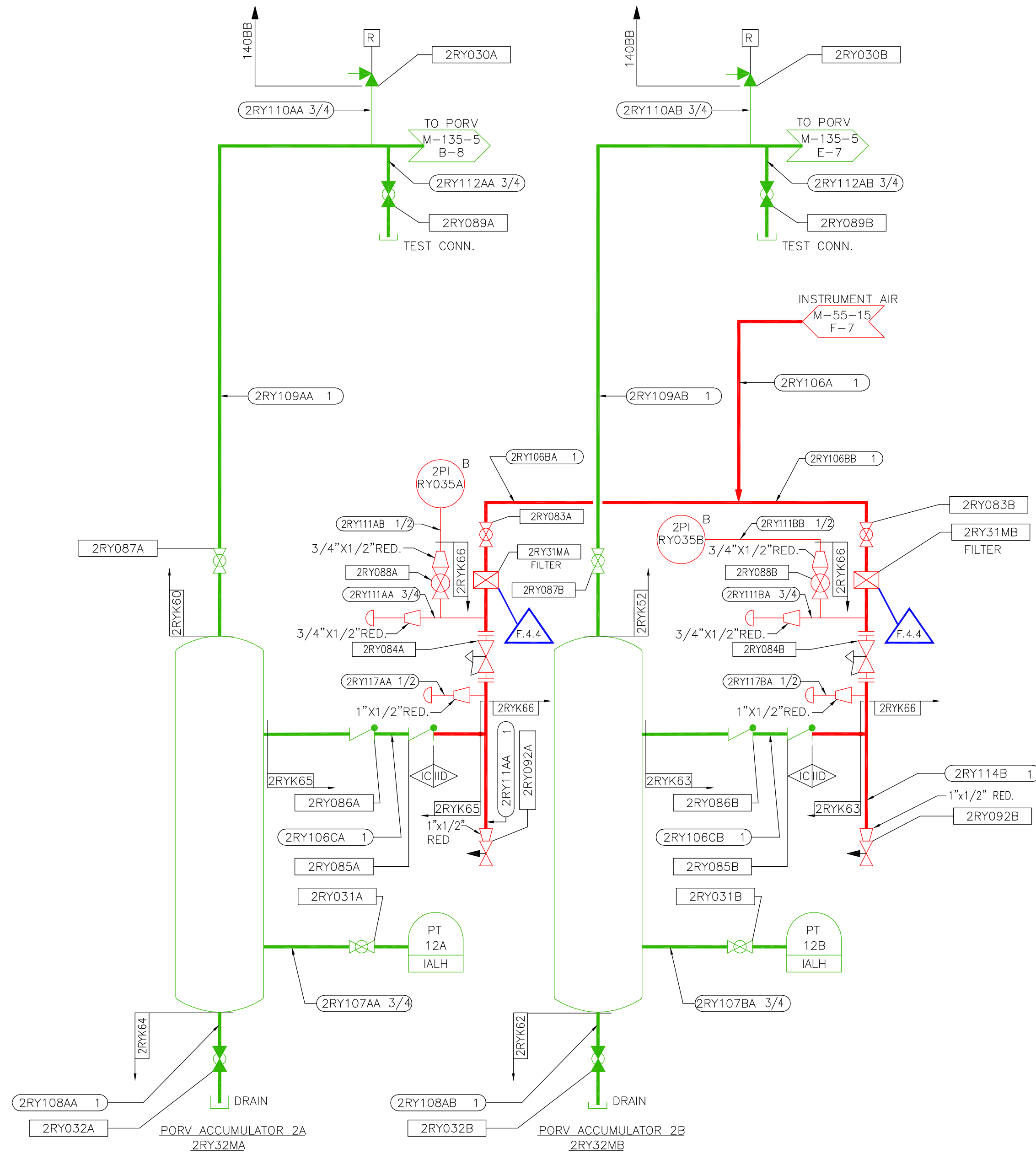
C

B

B

A

A



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-135, SHEET 8, REVISION AE.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEMS:  
 RCS- REACTOR COOLANT SYSTEM

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	C W B	T E Q	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF REACTOR COOLANT UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-135	SHEET 8	0		

8

7

6

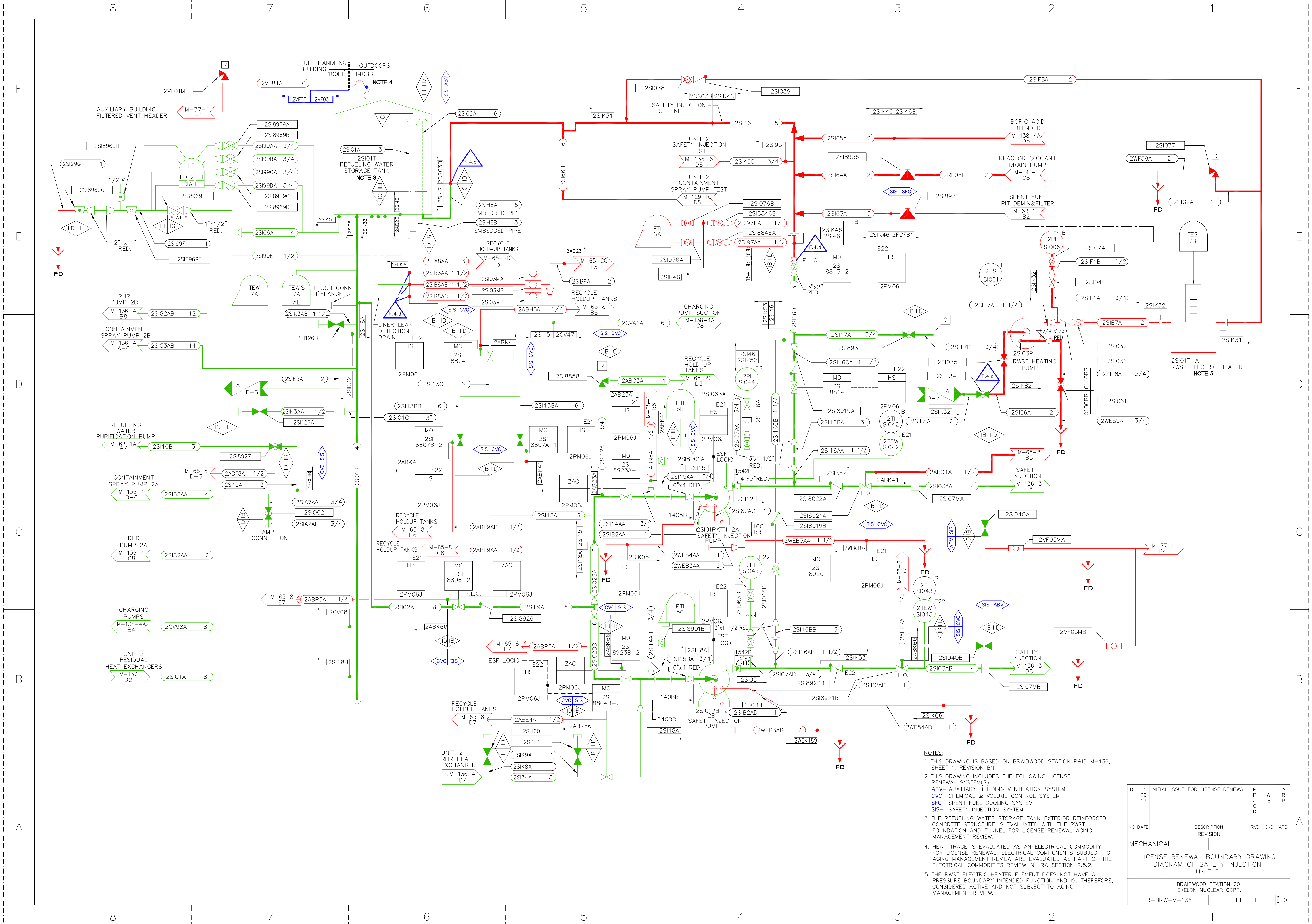
5

4

3

2

1



**NOTE 4**  
 FUEL HANDLING BUILDING  
 100BB 140BB  
 OUTDOORS

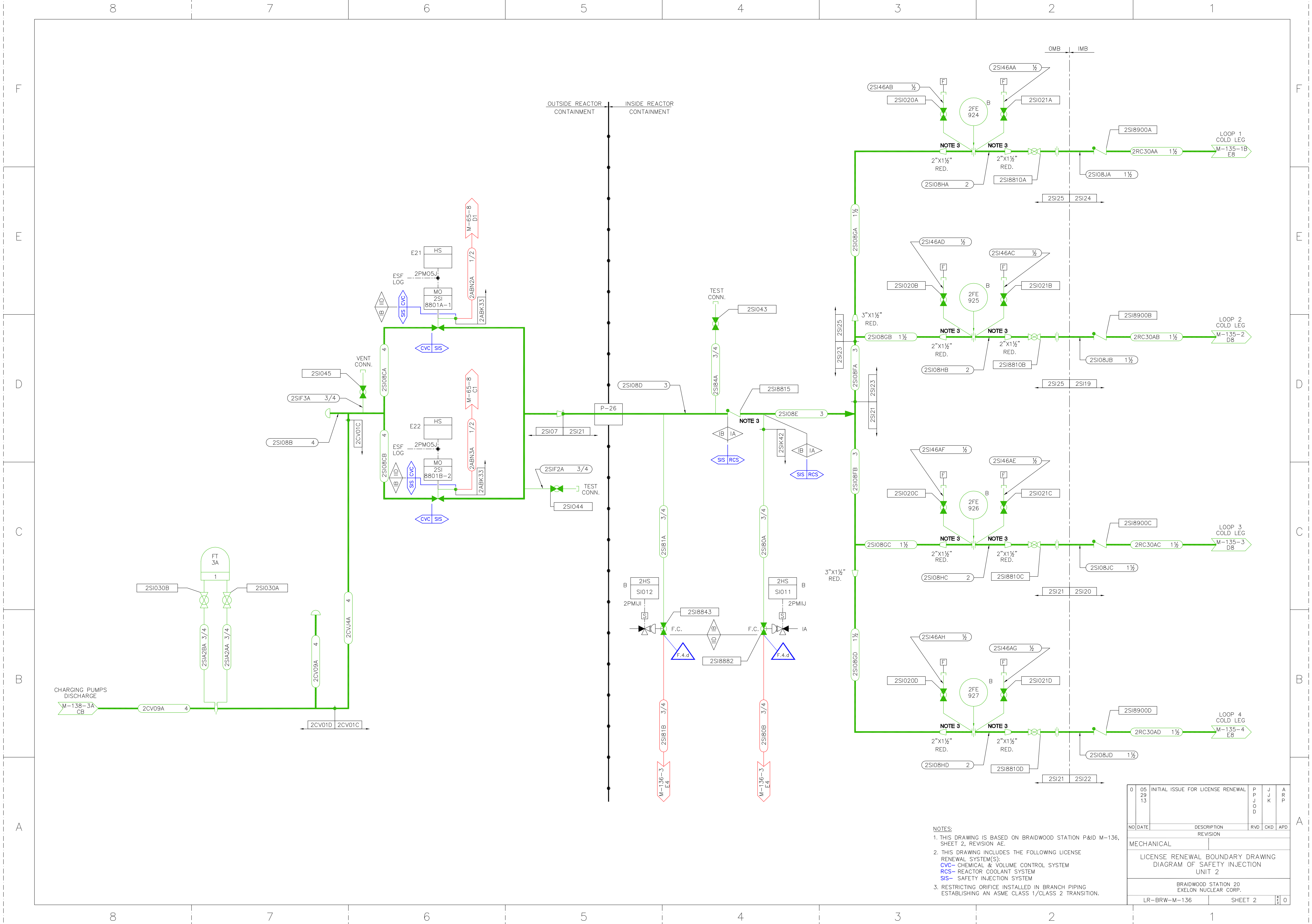
**NOTE 5**  
 2SI01T-A  
 RWST ELECTRIC HEATER

**NOTE 6**  
 2SI01T  
 REFUELING WATER STORAGE TANK

- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-136, SHEET 1, REVISION BN.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 SFC- SPENT FUEL COOLING SYSTEM  
 SIS- SAFETY INJECTION SYSTEM
  - THE REFUELING WATER STORAGE TANK EXTERIOR REINFORCED CONCRETE STRUCTURE IS EVALUATED WITH THE RWST FOUNDATION AND TUNNEL FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.
  - THE RWST ELECTRIC HEATER ELEMENT DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION AND IS, THEREFORE, CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

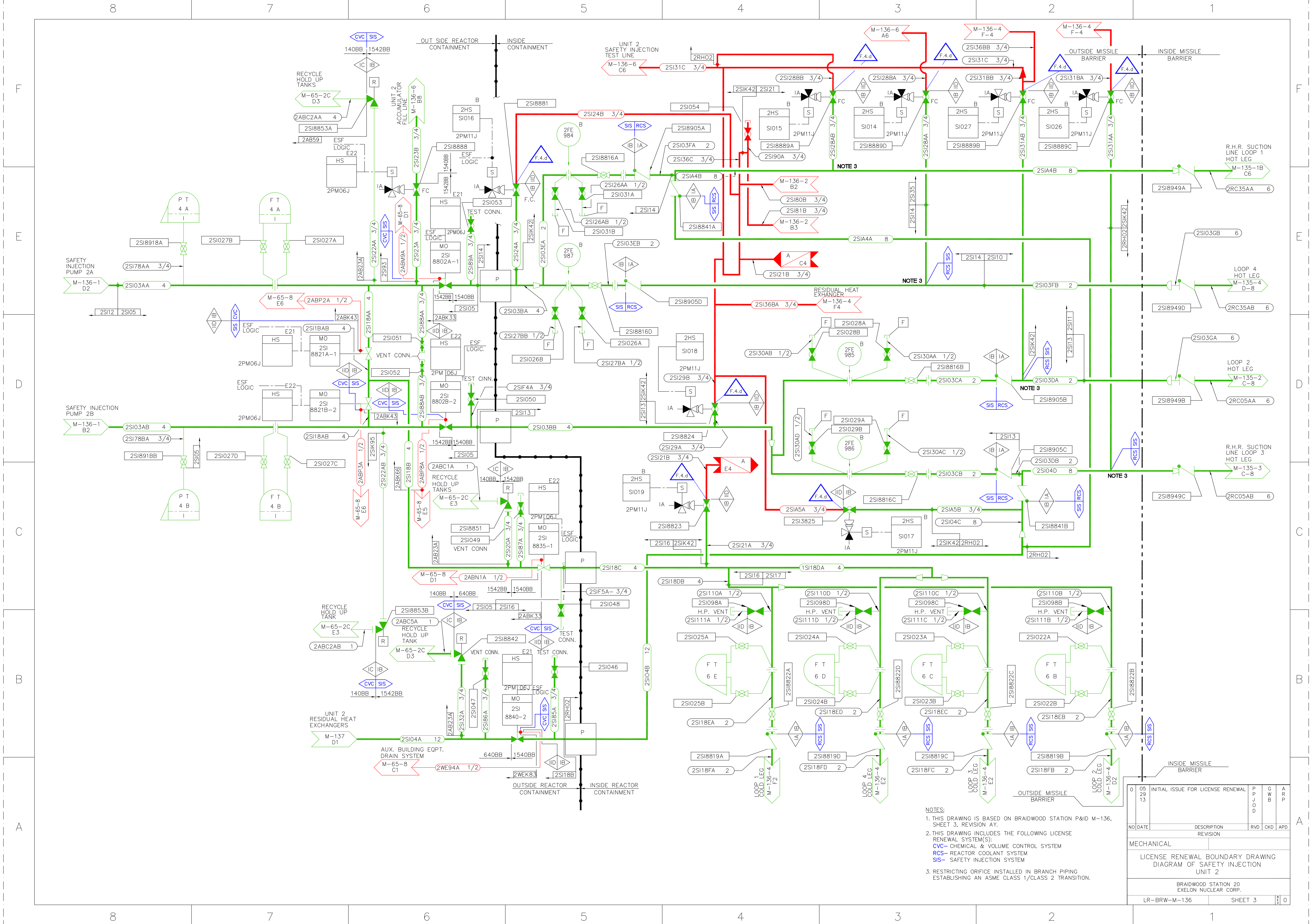
05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J O D	C W B	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF SAFETY INJECTION UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-136		SHEET 1		0





NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-136, SHEET 2, REVISION AE.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 SIS- SAFETY INJECTION SYSTEM  
 3. RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.

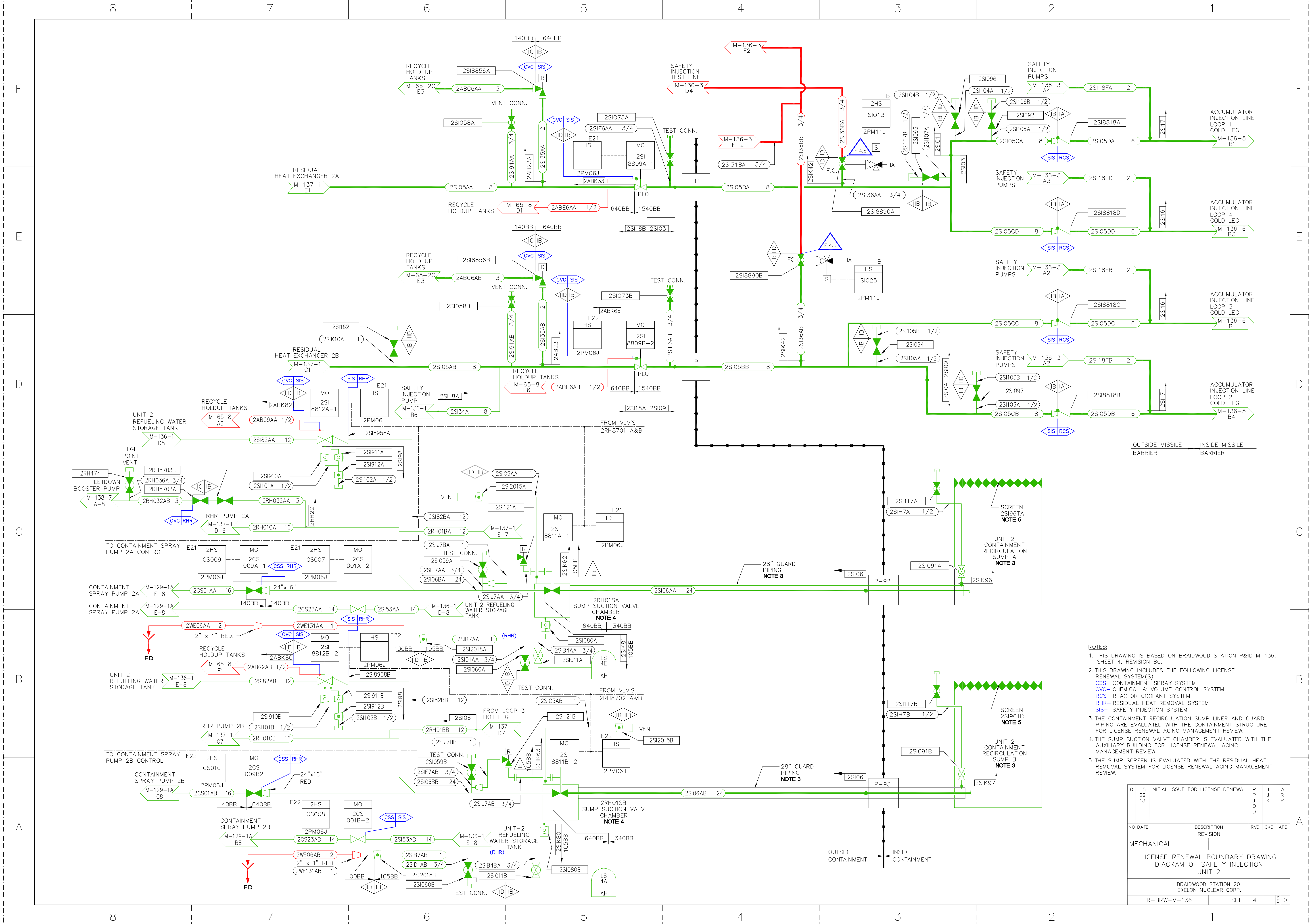
0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
					P	J	R
					J	K	P
					O		
					D		
NO	DATE	DESCRIPTION			RVD	CKD	APD
		REVISION					
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING							
DIAGRAM OF SAFETY INJECTION							
UNIT 2							
BRAIDWOOD STATION 20							
EXELON NUCLEAR CORP.							
LR-BRW-M-136				SHEET 2		0	



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-136, SHEET 3, REVISION AY.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 SIS- SAFETY INJECTION SYSTEM  
 3. RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P P J O D	C W B	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
	REVISION			
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF SAFETY INJECTION UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-136		SHEET 3		0



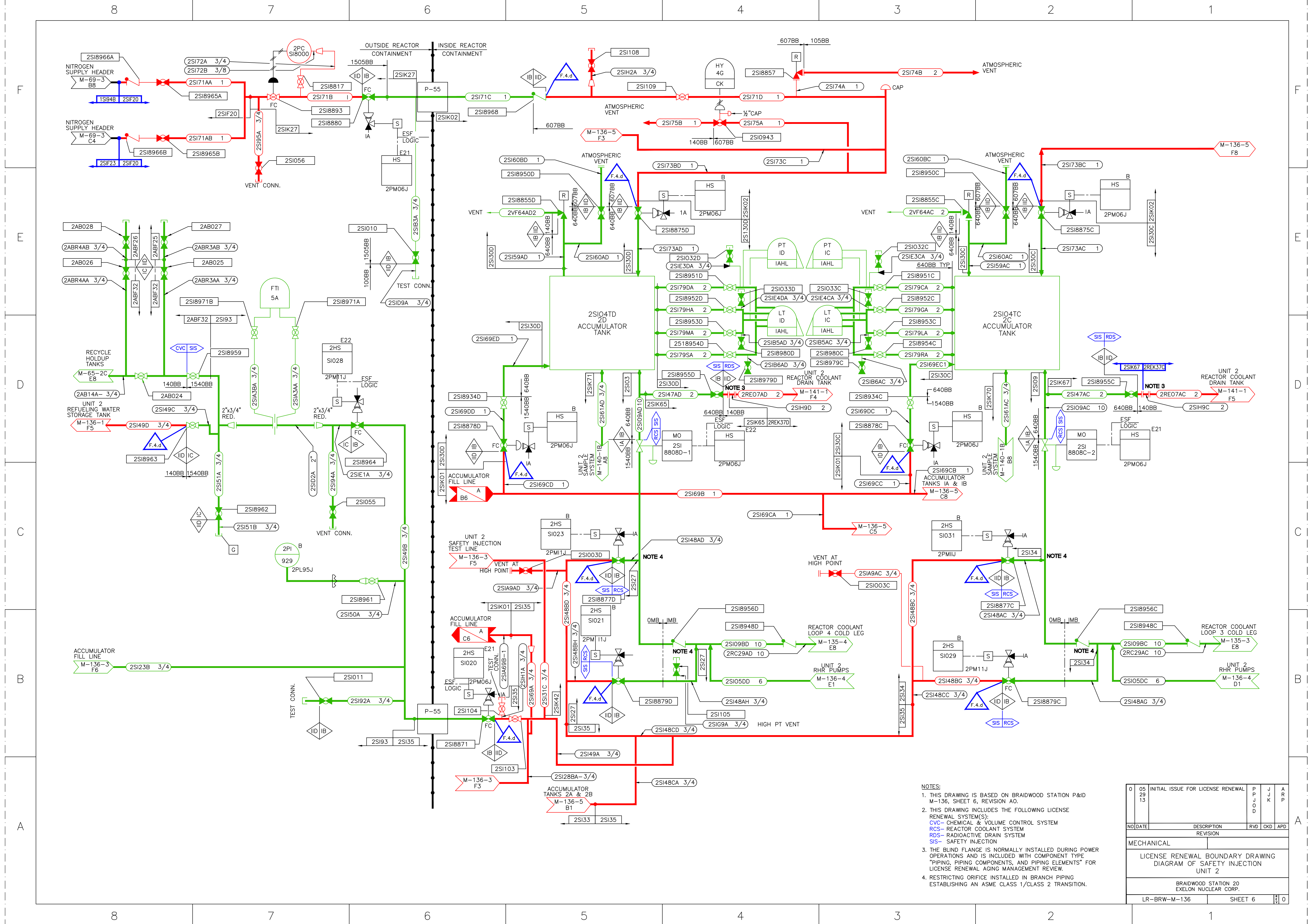


- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-136, SHEET 4, REVISION BG.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CSS- CONTAINMENT SPRAY SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RHR- RESIDUAL HEAT REMOVAL SYSTEM  
 SIS- SAFETY INJECTION SYSTEM
  3. THE CONTAINMENT RECIRCULATION SUMP LINER AND GUARD PIPING ARE EVALUATED WITH THE CONTAINMENT STRUCTURE FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. THE SUMP SUCTION VALVE CHAMBER IS EVALUATED WITH THE AUXILIARY BUILDING FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  5. THE SUMP SCREEN IS EVALUATED WITH THE RESIDUAL HEAT REMOVAL SYSTEM FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		J	J	R
			O	K	P
			D		
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF SAFETY INJECTION UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-136			SHEET 4		0







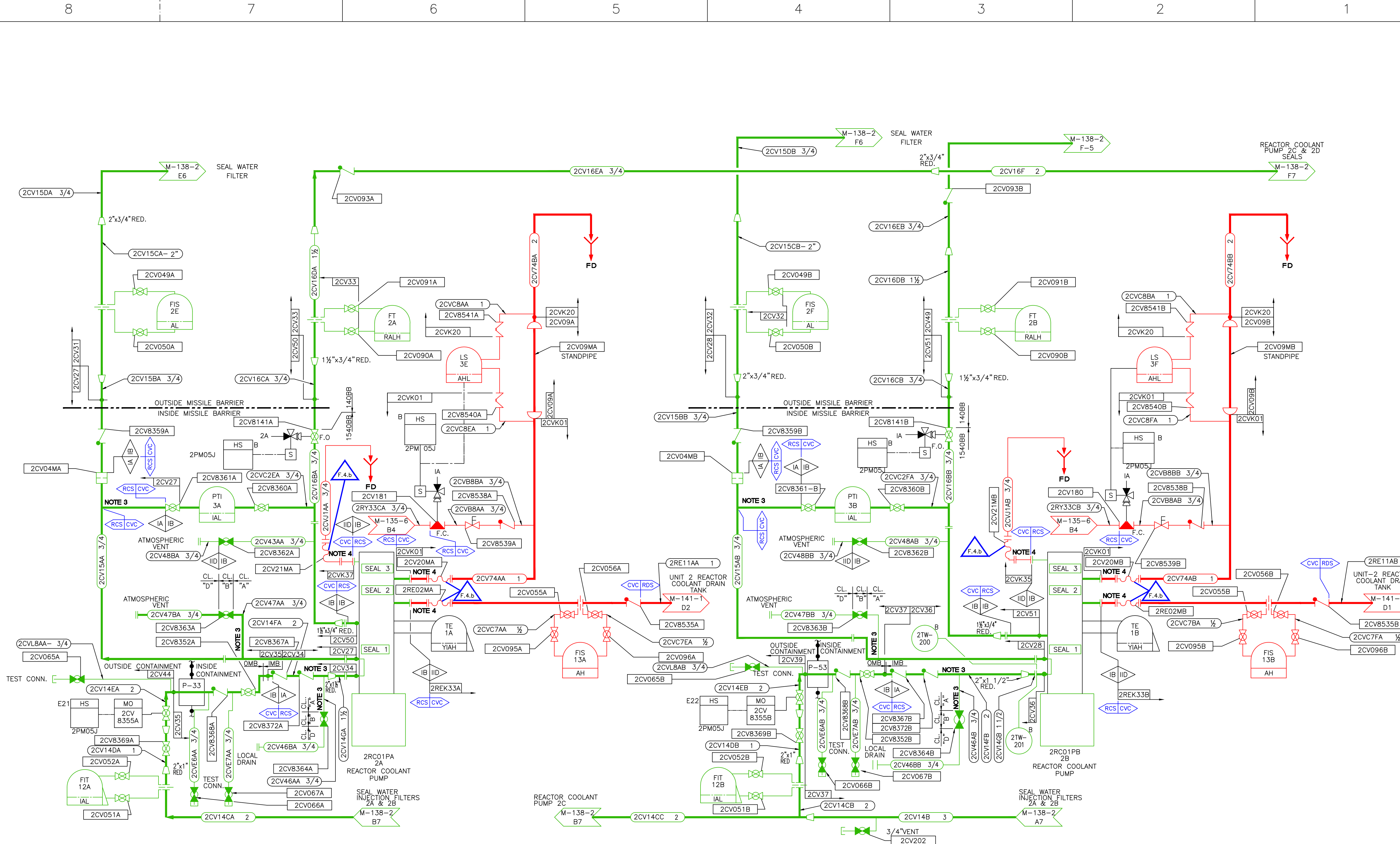
- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-136, SHEET 6, REVISION A0.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 SIS- SAFETY INJECTION
  3. THE BLIND FLANGE IS NORMALLY INSTALLED DURING POWER OPERATIONS AND IS INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  4. RESTRICTING ORIFICE INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J J O D	J K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF SAFETY INJECTION UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-136		SHEET 6		0





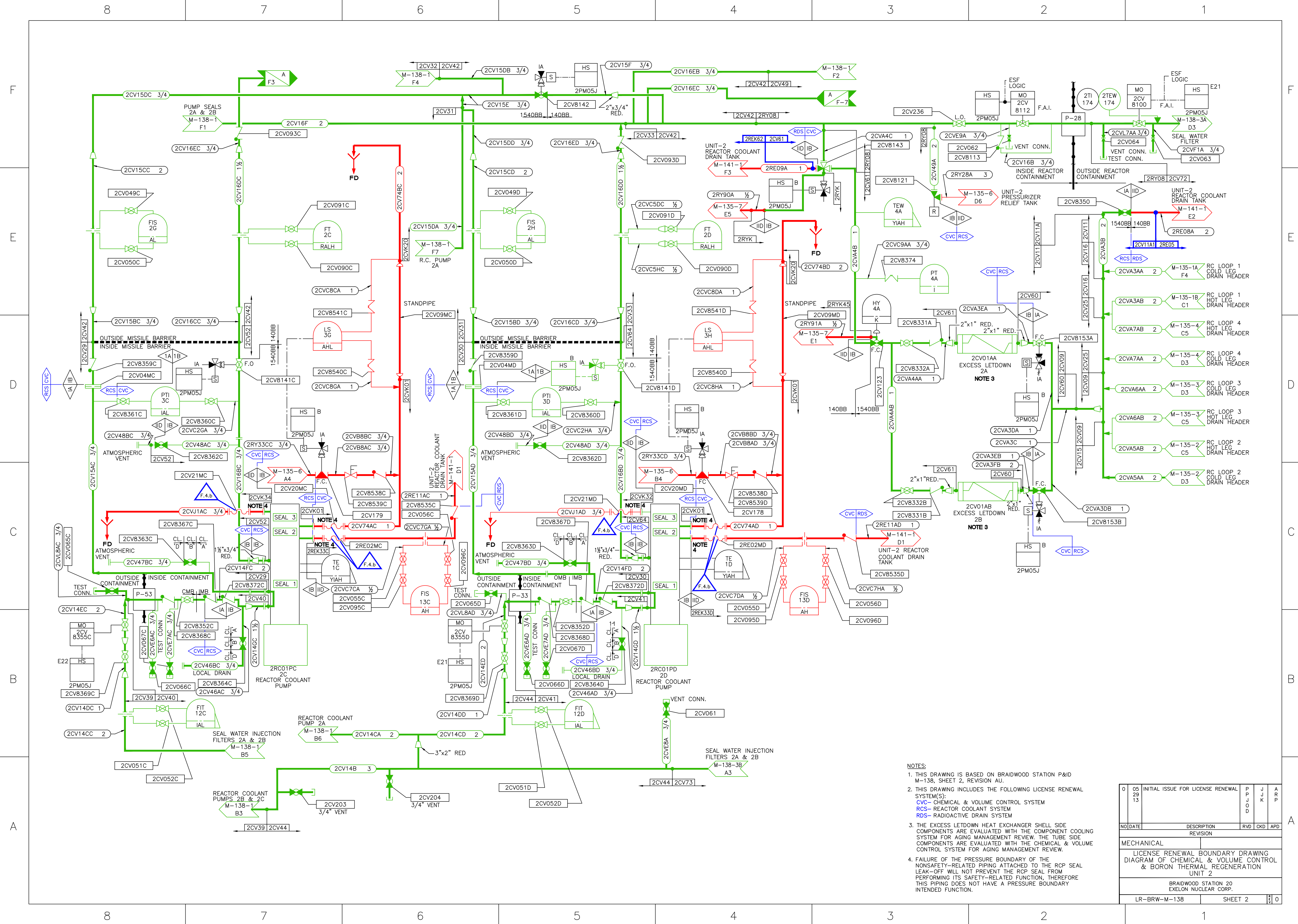




- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-138, SHEET 1, REVISION AY.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM
  3. A RESTRICTING ORIFICE IS INSTALLED IN BRANCH PIPING ESTABLISHING AN ASME CLASS 1/CLASS 2 TRANSITION.
  4. FAILURE OF THE PRESSURE BOUNDARY OF THE NONSAFETY-RELATED PIPING ATTACHED TO THE RCP SEAL LEAK-OFF WILL NOT PREVENT THE RCP SEAL FROM PERFORMING ITS SAFETY-RELATED FUNCTION, THEREFORE THIS PIPING DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
29	13		P	J	J	P
			J	O	D	
NO DATE		DESCRIPTION	RVD	CKD	APD	
REVISION						
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEM & VOLUME CONTROL & BORON THERMAL REGENERATION UNIT 2						
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.						
LR-BRW-M-138		SHEET 1				

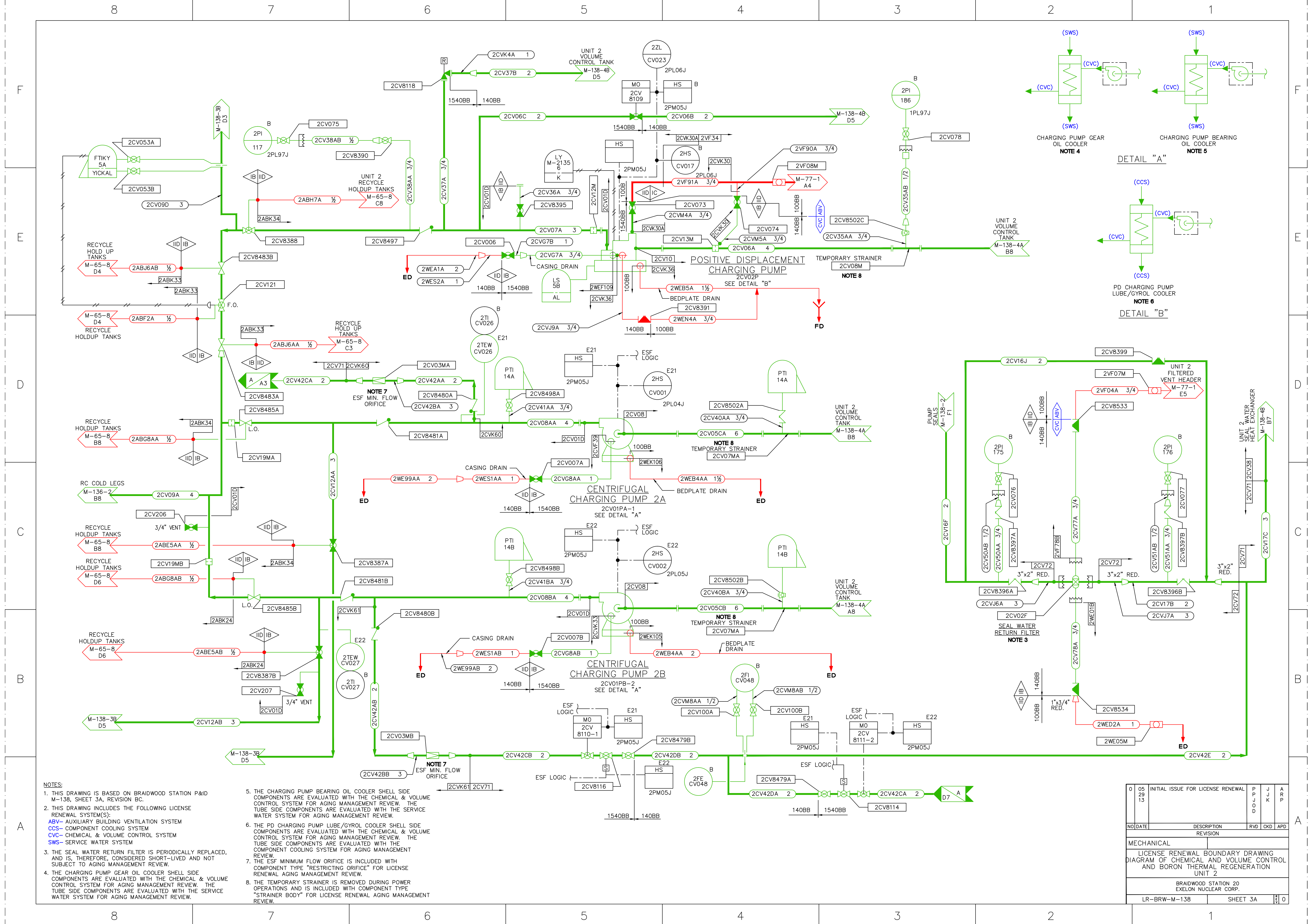




- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-138, SHEET 2, REVISION AU.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM
  - THE EXCESS LETDOWN HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  - FAILURE OF THE PRESSURE BOUNDARY OF THE NONSAFETY-RELATED PIPING ATTACHED TO THE RCP SEAL LEAK-OFF WILL NOT PREVENT THE RCP SEAL FROM PERFORMING ITS SAFETY-RELATED FUNCTION, THEREFORE THIS PIPING DOES NOT HAVE A PRESSURE BOUNDARY INTENDED FUNCTION.

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	
29		P	J	R	
13		J	K	P	
		O			
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEMICAL & VOLUME CONTROL & BORON THERMAL REGENERATION UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-138 SHEET 2 0					



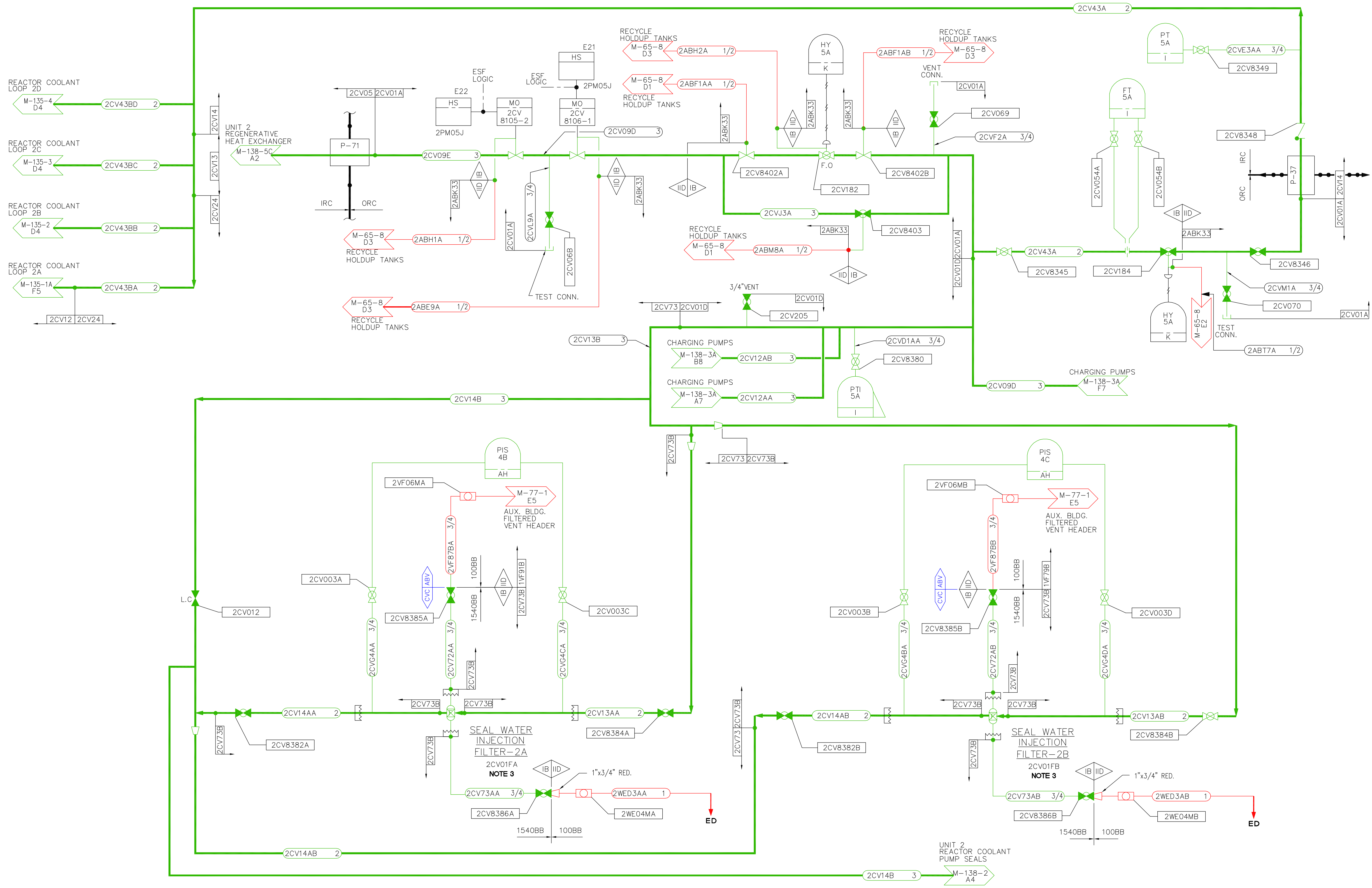


**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-138, SHEET 3A, REVISION BC.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CCS- COMPONENT COOLING SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 SWS- SERVICE WATER SYSTEM
- THE SEAL WATER RETURN FILTER IS PERIODICALLY REPLACED, AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
- THE CHARGING PUMP GEAR OIL COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

- THE CHARGING PUMP BEARING OIL COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
- THE PD CHARGING PUMP LUBE/GYROL COOLER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW.
- THE ESF MINIMUM FLOW ORIFICE IS INCLUDED WITH COMPONENT TYPE "RESTRICTING ORIFICE" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- THE TEMPORARY STRAINER IS REMOVED DURING POWER OPERATIONS AND IS INCLUDED WITH COMPONENT TYPE "STRAINER BODY" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

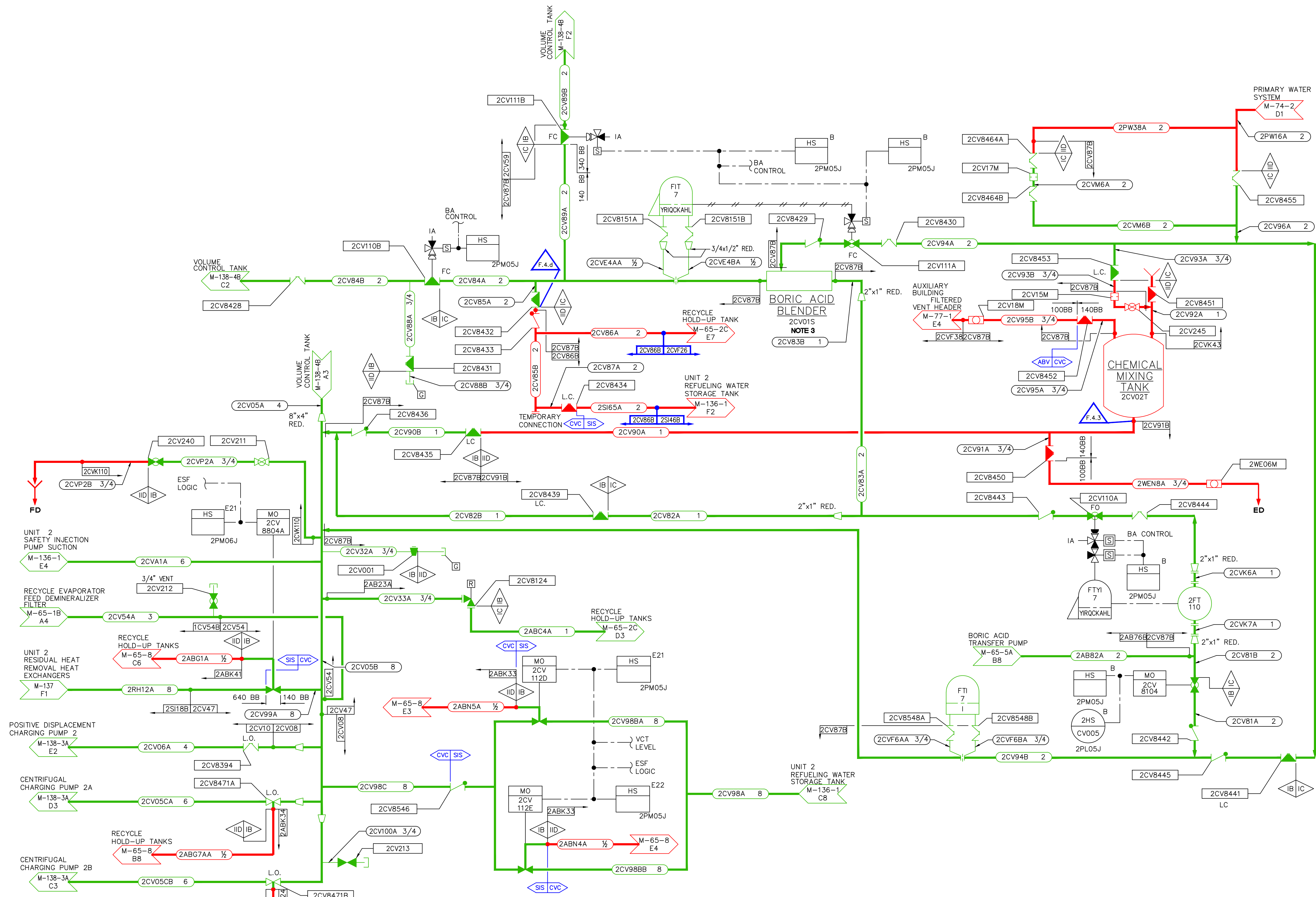
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
1	29		P	J	R
2	13		O	K	P
NO DATE			REVISION		
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEMICAL AND VOLUME CONTROL AND BORON THERMAL REGENERATION UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-138			SHEET 3A		



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-138, SHEET 3B, REVISION AY.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 3. THE SEAL WATER INJECTION FILTERS ARE PERIODICALLY REPLACED, AND ARE, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P J O D	J J K	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEMICAL VOLUME CONTROL & BORON THERMAL REGENERATION UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-138	SHEET 3B	0		

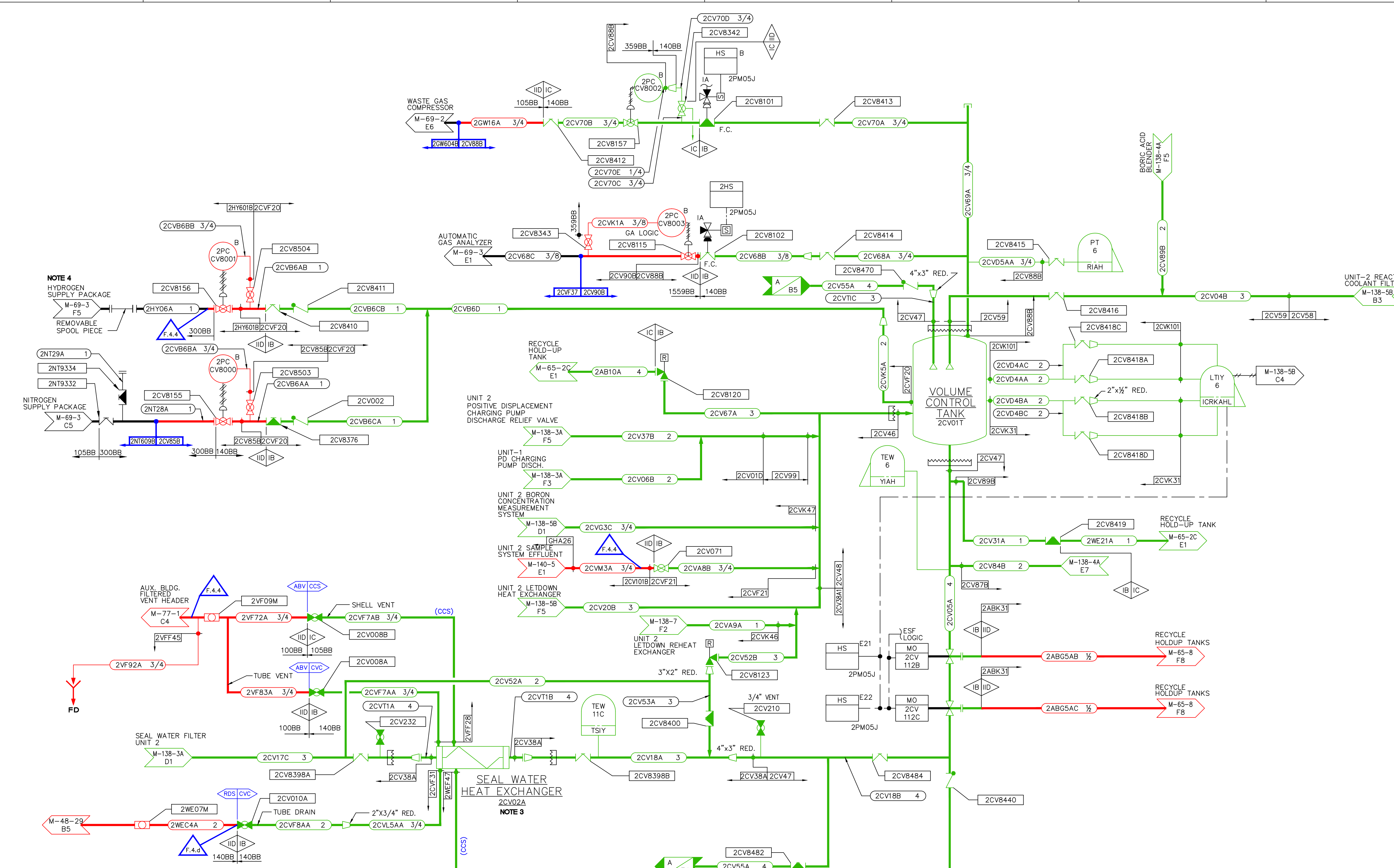




NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-138, SHEET 4A, REVISION BR.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 SIS- SAFETY INJECTION SYSTEM
3. THE BORIC ACID BLENDER IS INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		J	J	R
			O	K	P
			D		
NO/DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEMICAL & VOLUME CONTROL & BORON THERMAL REGENERATION UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-138 SHEET 4A 0					



**NOTE 4**  
HYDROGEN SUPPLY PACKAGE  
REMOVABLE SPOOL PIECE

NITROGEN SUPPLY PACKAGE

AUX. BLDG. FILTERED VENT HEADER

SEAL WATER FILTER UNIT 2

2WEC4A 2

2WEC2A 2

AUTOMATIC GAS ANALYZER

UNIT 2 POSITIVE DISPLACEMENT CHARGING PUMP DISCHARGE RELIEF VALVE

UNIT-1 PD CHARGING PUMP DISCH.

UNIT 2 BORON CONCENTRATION MEASUREMENT SYSTEM

UNIT 2 SAMPLE SYSTEM EFFLUENT

UNIT 2 LEADOWN HEAT EXCHANGER

UNIT 2 LEADOWN REHEAT EXCHANGER

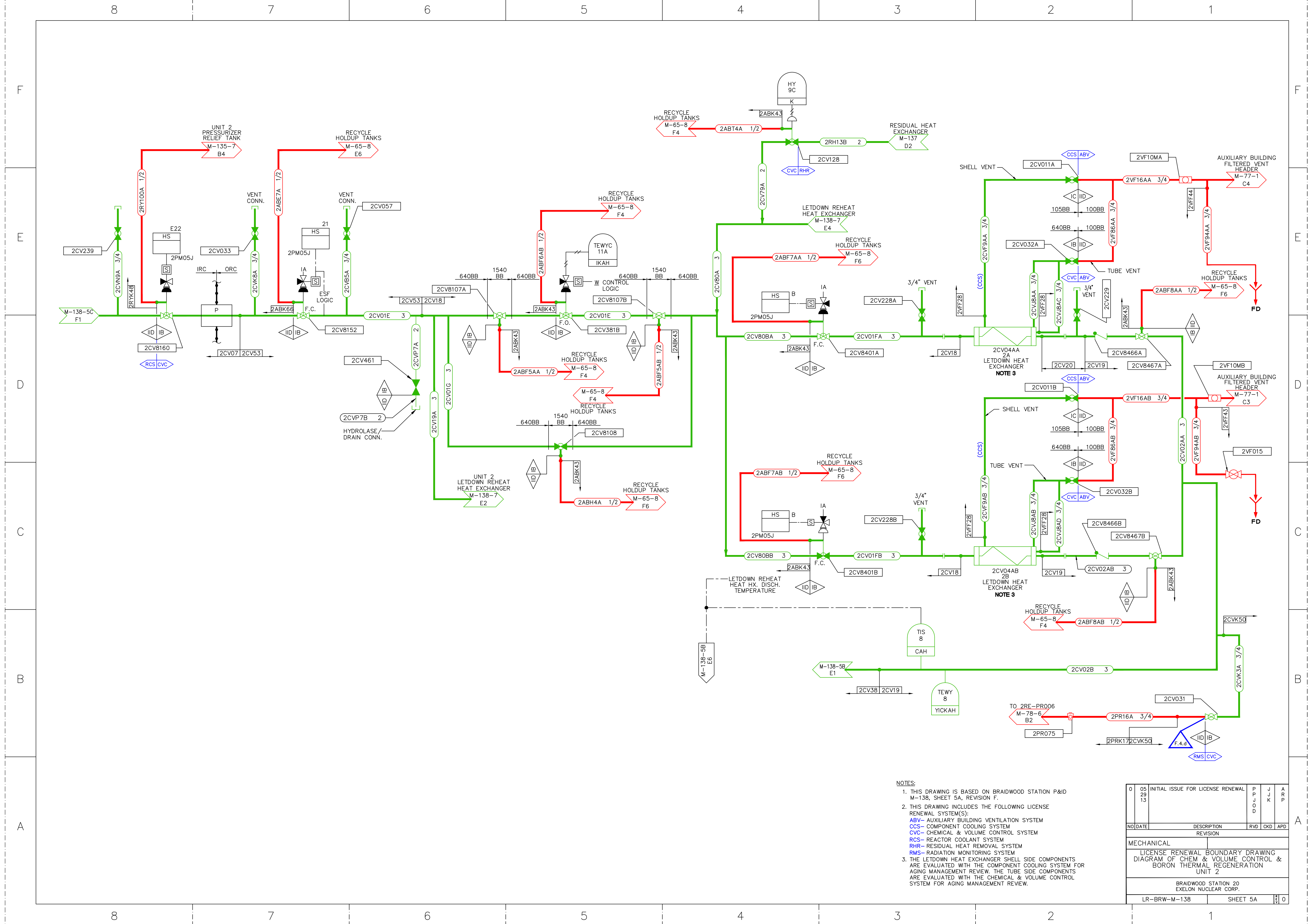
SEAL WATER HEAT EXCHANGER 2CV02A

**NOTE 3**

- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-138, SHEET 4B, REVISION B.J.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
CCS- COMPONENT COOLING SYSTEM  
CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
RDS- RADIOACTIVE DRAINS SYSTEM
  - THE SEAL WATER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  - AN EXCESS-FLOW CHECK VALVE IS INSTALLED UPSTREAM OF THIS LOCATION, AT THE BULK HYDROGEN STORAGE SKID, AND IS CREDITED TO LIMIT THE FLOW OF HYDROGEN INTO THE AUXILIARY BUILDING IN THE EVENT OF A HYDROGEN LINE BREAK TO MEET FIRE PROTECTION REQUIREMENTS. THIS IS CONSIDERED AN ACTIVE FUNCTION AND, THEREFORE, THE CHECK VALVE IS NOT SUBJECT TO AGING MANAGEMENT REVIEW.

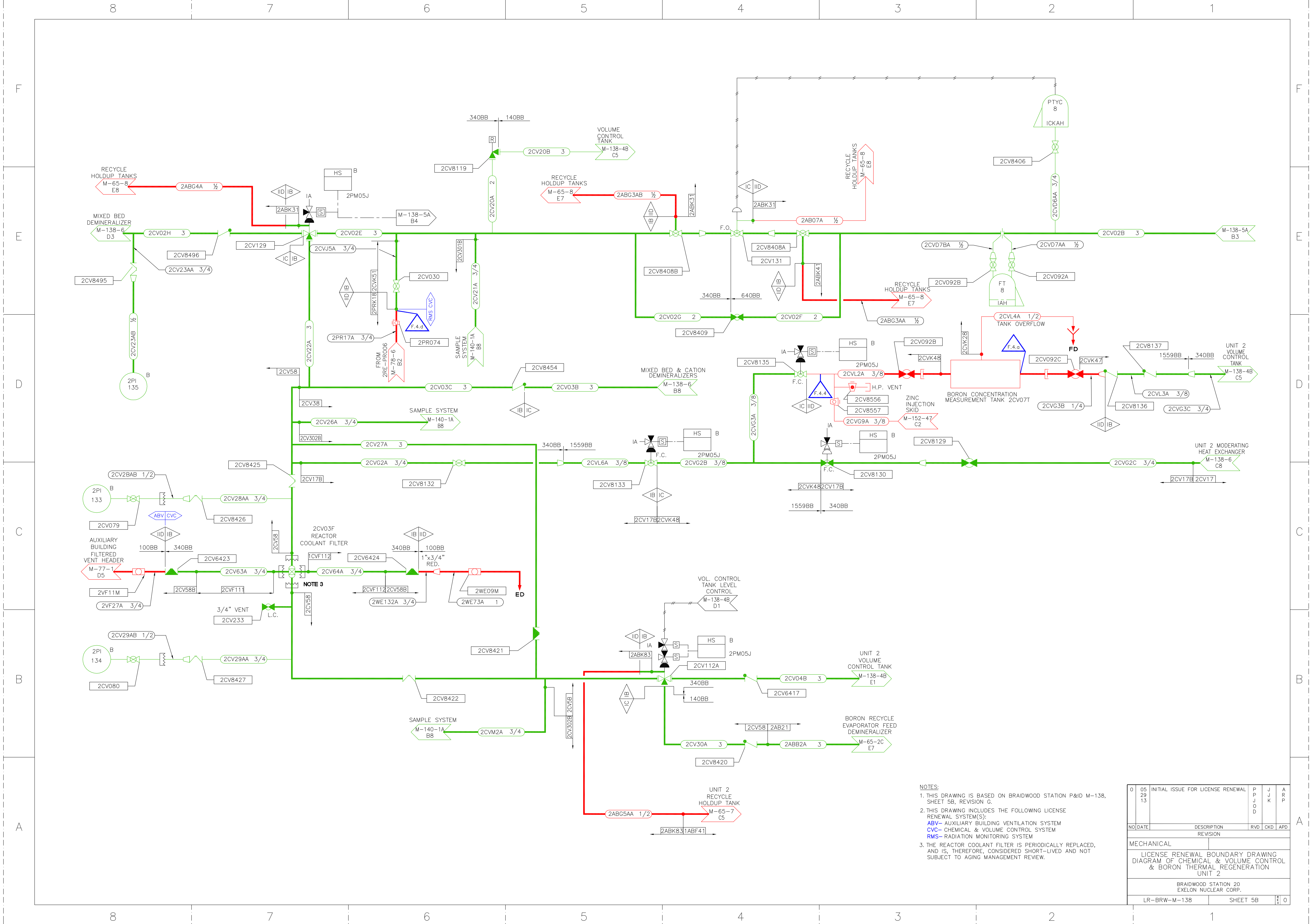
05/29/13	INITIAL ISSUE FOR LICENSE RENEWAL	P J O D	J J K	A R P
NO/DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEMICAL & VOLUME CONTROL & BORON THERMAL REGENERATION UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-138	SHEET 4B	0		





- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-138, SHEET 5A, REVISION F.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CCS- COMPONENT COOLING SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RHR- RESIDUAL HEAT REMOVAL SYSTEM  
 RMS- RADIATION MONITORING SYSTEM
  3. THE LETDOWN HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		P	J	R
			J	K	P
			O		
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF CHEM & VOLUME CONTROL & BORON THERMAL REGENERATION					
UNIT 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-138 SHEET 5A					



**NOTES:**

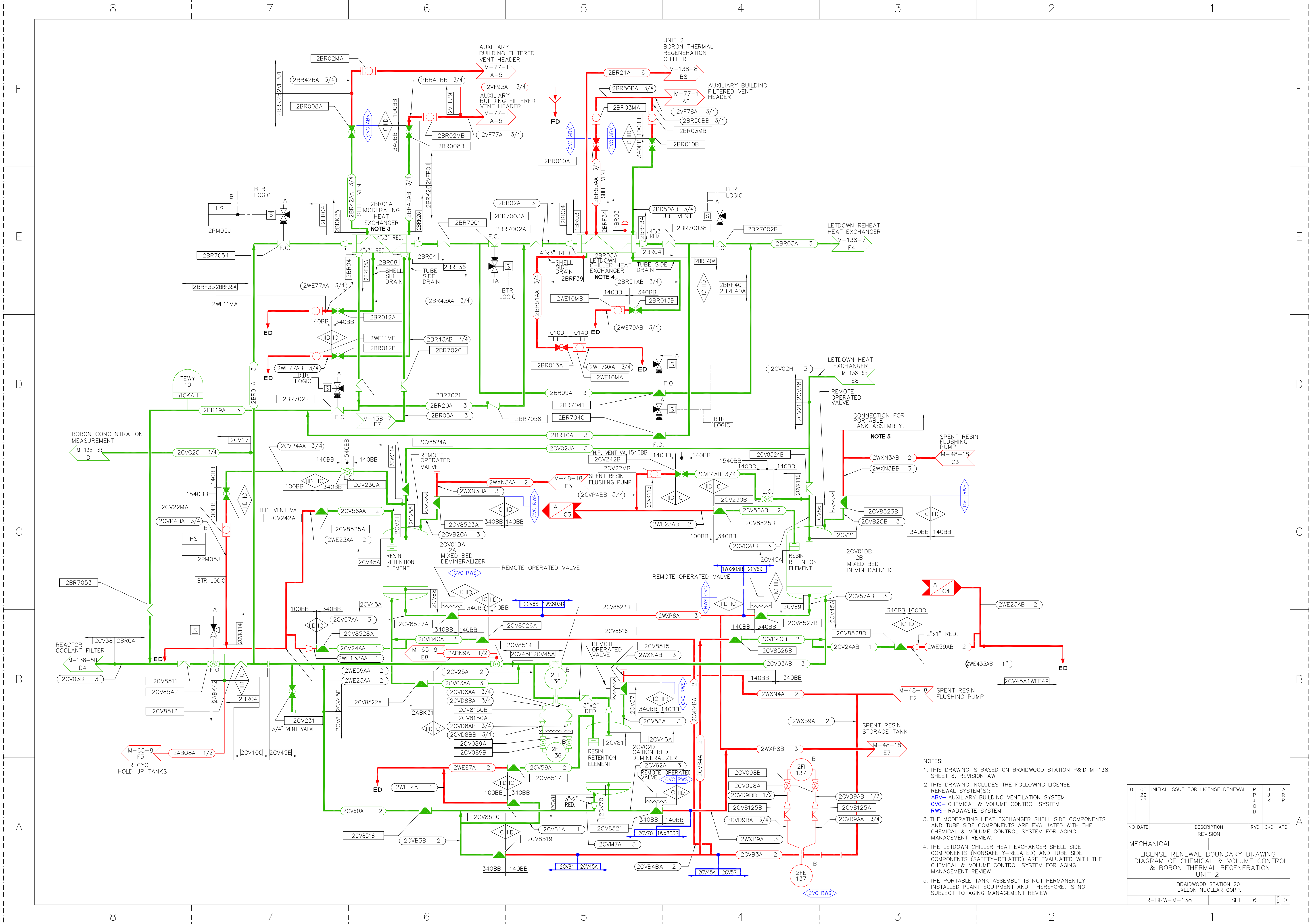
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-138, SHEET 5B, REVISION G.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RMS- RADIATION MONITORING SYSTEM
- THE REACTOR COOLANT FILTER IS PERIODICALLY REPLACED, AND IS, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
				P	J	A	R
				J	K		
				O	D		
NO DATE			DESCRIPTION	RVD	CKD	APD	
			REVISION				
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF CHEMICAL & VOLUME CONTROL & BORON THERMAL REGENERATION UNIT 2							
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.							
LR-BRW-M-138				SHEET 5B		0	









- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-138, SHEET 6, REVISION AW.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 ABV- AUXILIARY BUILDING VENTILATION SYSTEM  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RWS- RADWASTE SYSTEM
  - THE MODERATING HEAT EXCHANGER SHELL SIDE COMPONENTS AND TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE LETDOWN CHILLER HEAT EXCHANGER SHELL SIDE COMPONENTS (NONSAFETY-RELATED) AND TUBE SIDE COMPONENTS (SAFETY-RELATED) ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE PORTABLE TANK ASSEMBLY IS NOT PERMANENTLY INSTALLED PLANT EQUIPMENT AND, THEREFORE, IS NOT SUBJECT TO AGING MANAGEMENT REVIEW.

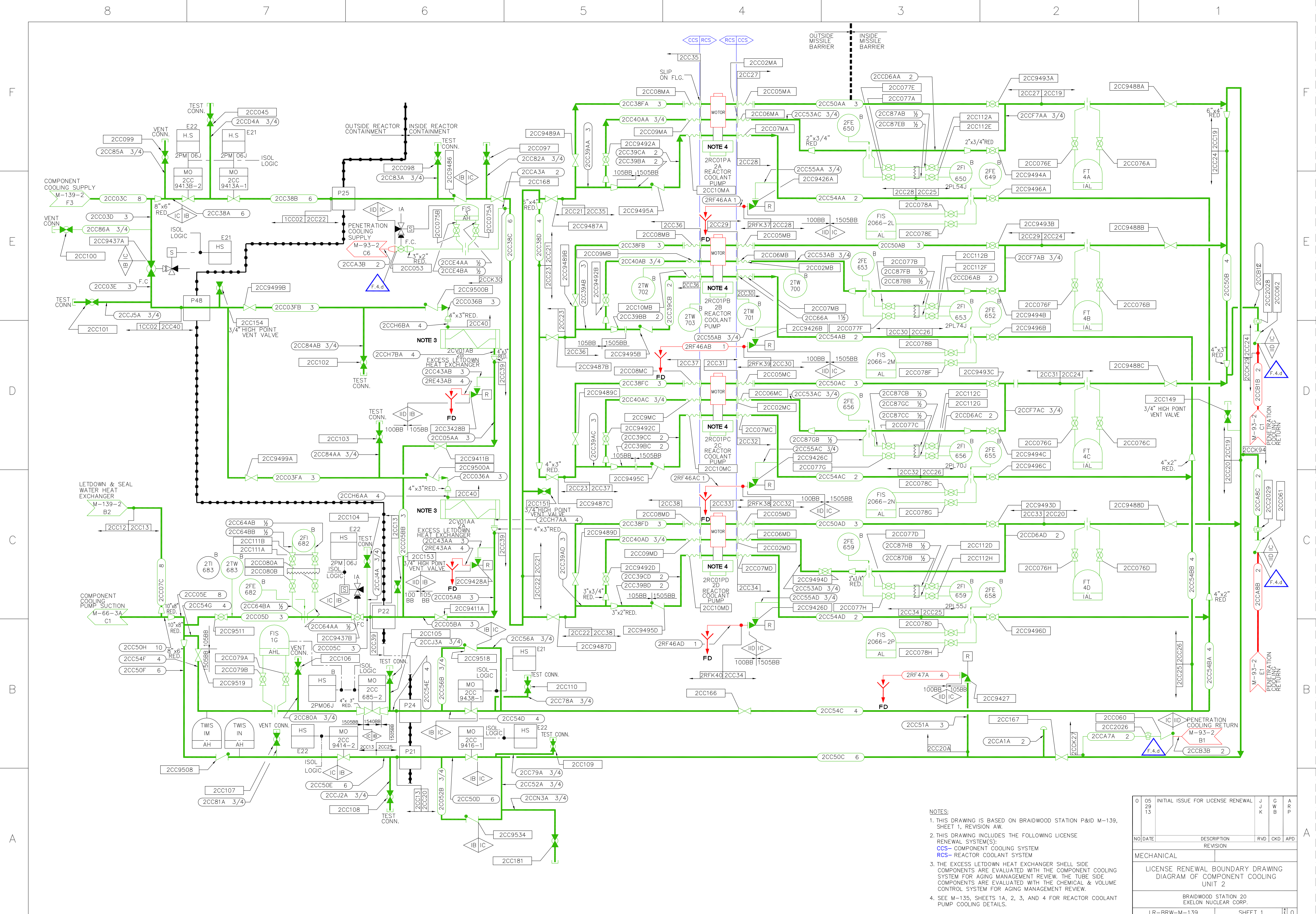
0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	R
					P	J	A	R
					J	K		
					O			
					D			
NO	DATE			DESCRIPTION	RVD	CKD	APD	
				REVISION				
MECHANICAL								
LICENSE RENEWAL BOUNDARY DRAWING								
DIAGRAM OF CHEMICAL & VOLUME CONTROL								
& BORON THERMAL REGENERATION								
UNIT 2								
BRAIDWOOD STATION 20								
EXELON NUCLEAR CORP.								
LR-BRW-M-138								
SHEET 6								
0								









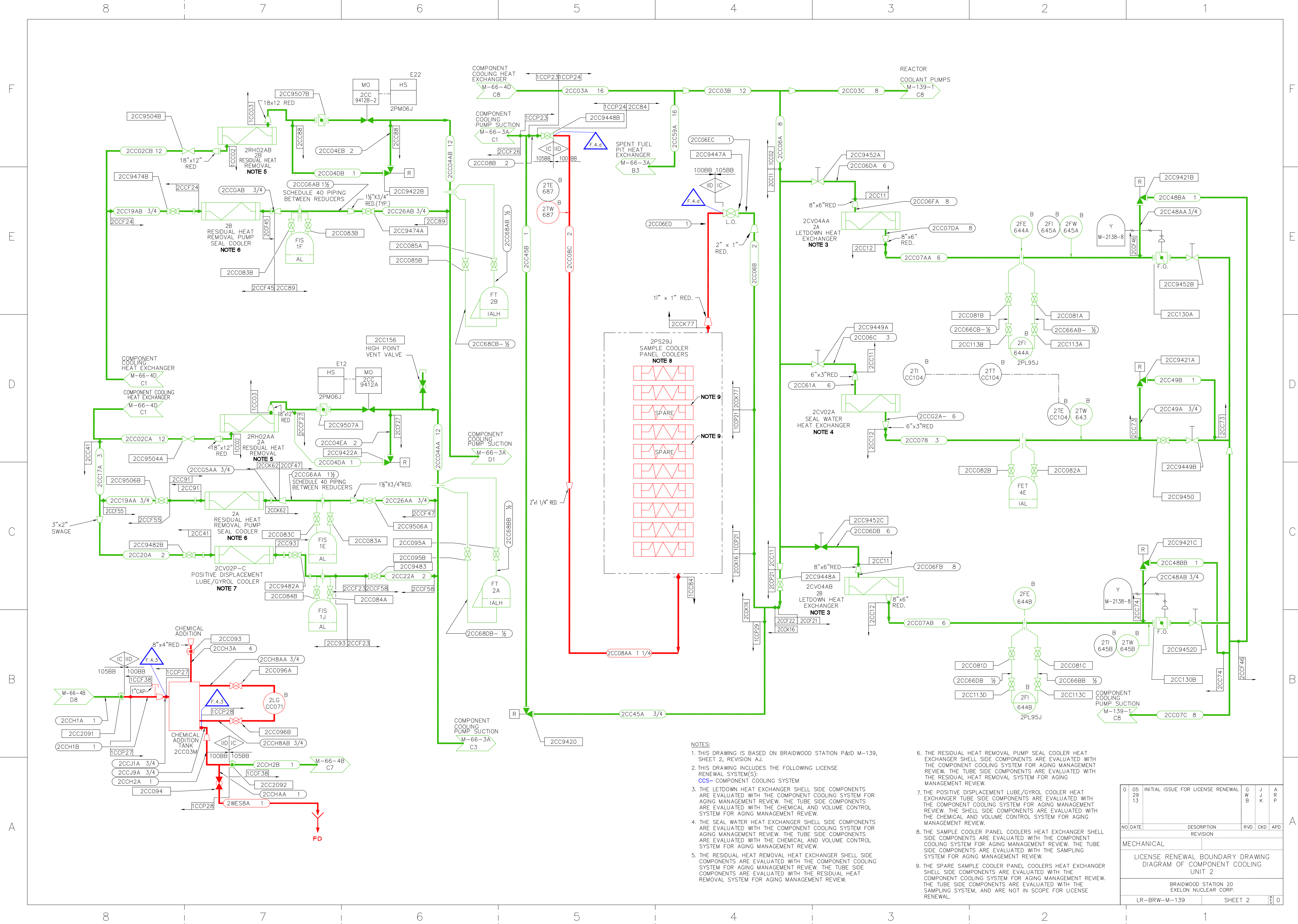


NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-139, SHEET 1, REVISION AW.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CCS- COMPONENT COOLING SYSTEM  
 RCS- REACTOR COOLANT SYSTEM
3. THE EXCESS LETDOWN HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL & VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
4. SEE M-135, SHEETS 1A, 2, 3, AND 4 FOR REACTOR COOLANT PUMP COOLING DETAILS.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	L	G	A
	29		L	C	W	P
	13		K	B	B	P
NO	DATE	DESCRIPTION	RVD	CKD	APD	
		REVISION				
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF COMPONENT COOLING						
UNIT 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-139						0



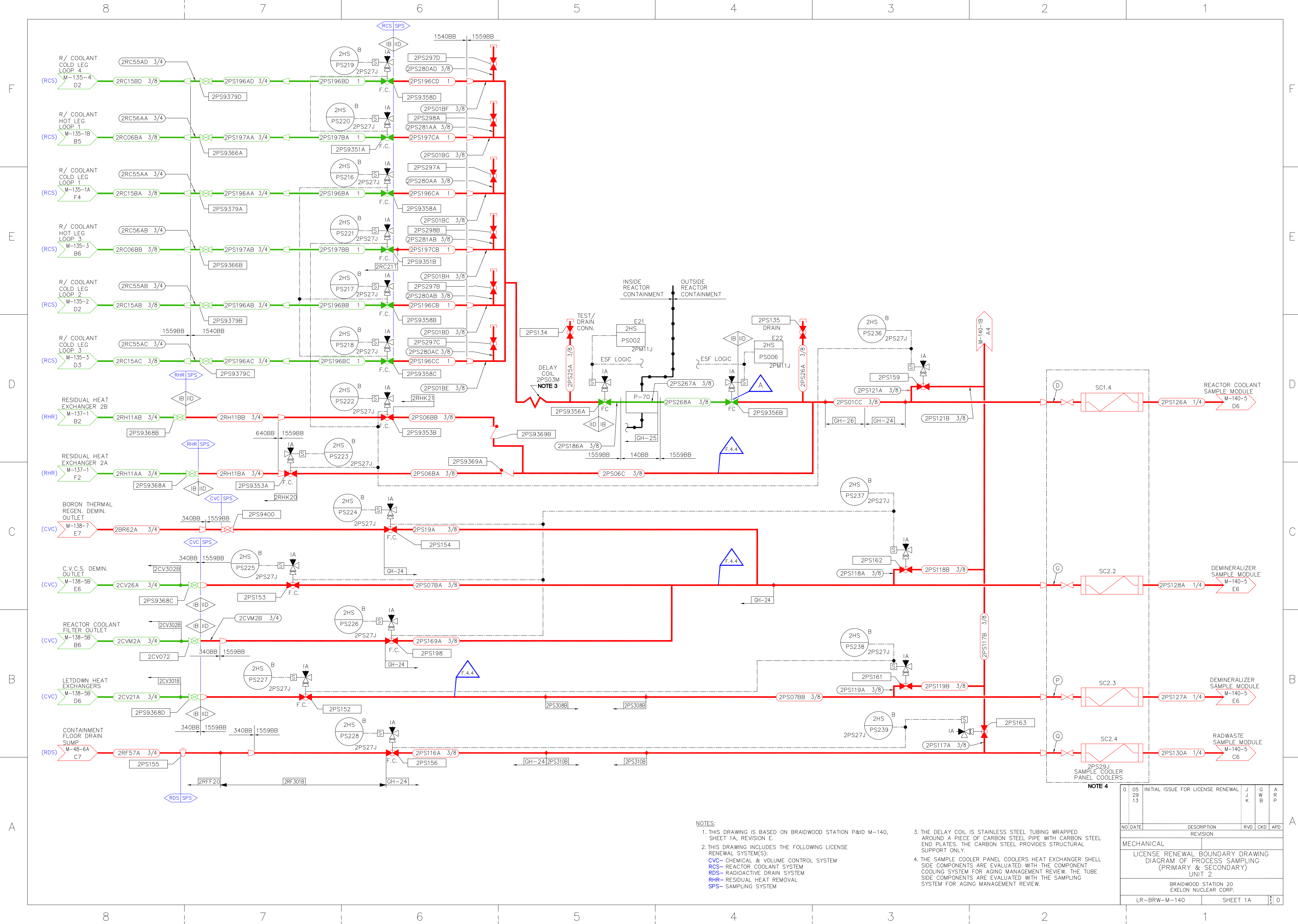


- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-139, SHEET 2, REVISION AJ.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CCS- COMPONENT COOLING SYSTEM
  - THE LETDOWN HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL AND VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE SEAL WATER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL AND VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
  - THE RESIDUAL HEAT REMOVAL HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RESIDUAL HEAT REMOVAL SYSTEM FOR AGING MANAGEMENT REVIEW.

- THE RESIDUAL HEAT REMOVAL PUMP SEAL COOLER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE RESIDUAL HEAT REMOVAL SYSTEM FOR AGING MANAGEMENT REVIEW.
- THE POSITIVE DISPLACEMENT LUBE/GYROL COOLER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE CHEMICAL AND VOLUME CONTROL SYSTEM FOR AGING MANAGEMENT REVIEW.
- THE SAMPLE COOLER PANEL COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM FOR AGING MANAGEMENT REVIEW.
- THE SPARE SAMPLE COOLER PANEL COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	G	J	A
29	29		W	J	R
13	13		B	K	P
NO DATE			REVISION		
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF COMPONENT COOLING UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-139			SHEET 2		0





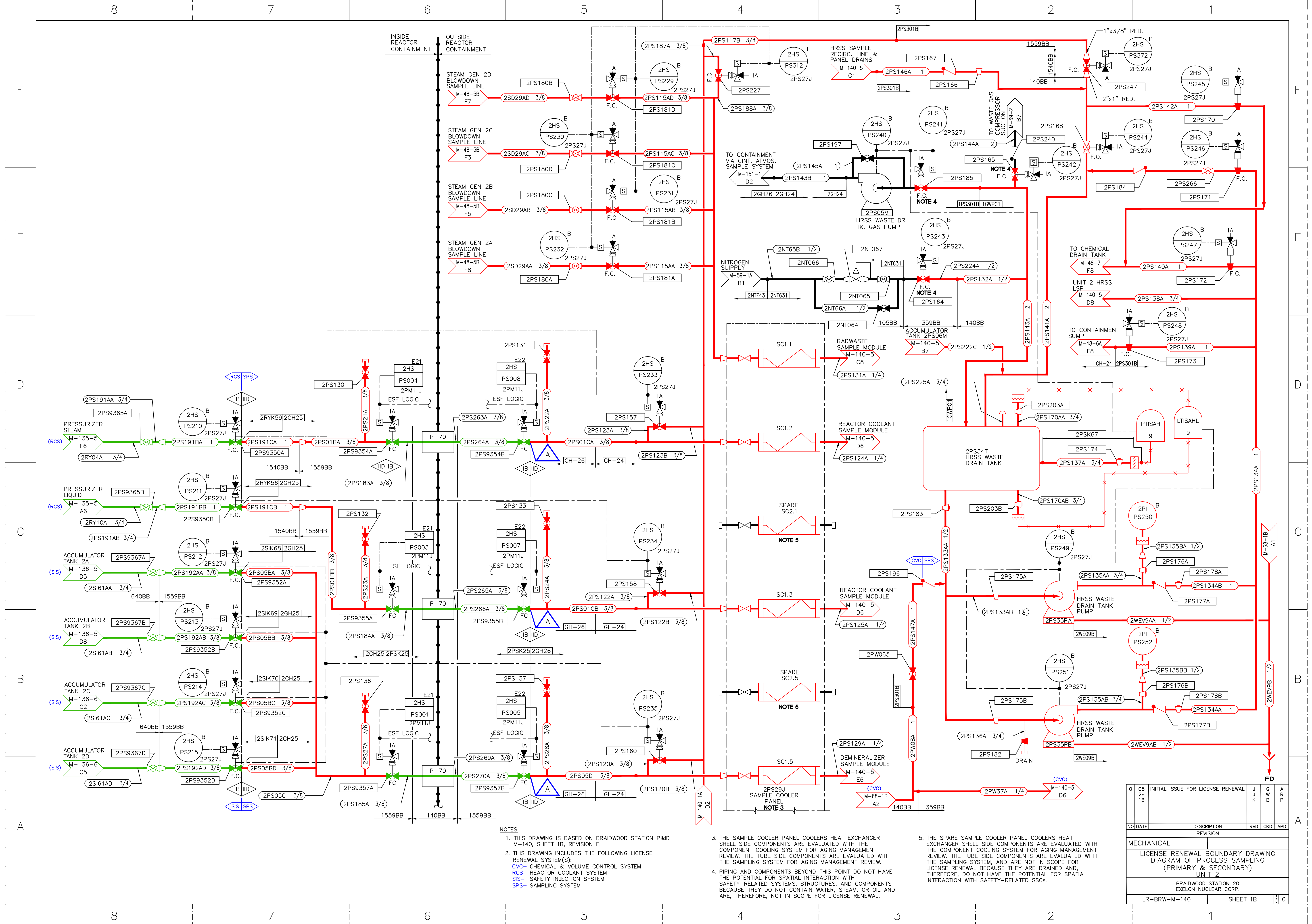
**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-140, SHEET 1A, REVISION E.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 RHR- RESIDUAL HEAT REMOVAL  
 SPS- SAMPLING SYSTEM
3. THE DELAY COIL IS STAINLESS STEEL TUBING WRAPPED AROUND A PIECE OF CARBON STEEL PIPE WITH CARBON STEEL END PLATES. THE CARBON STEEL PROVIDES STRUCTURAL SUPPORT ONLY.
4. THE SAMPLE COOLER PANEL COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM FOR AGING MANAGEMENT REVIEW.

**NOTE 4**

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
29	13		K	W	R
				B	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF PROCESS SAMPLING					
(PRIMARY & SECONDARY)					
UNIT 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-140		SHEET 1A	0		

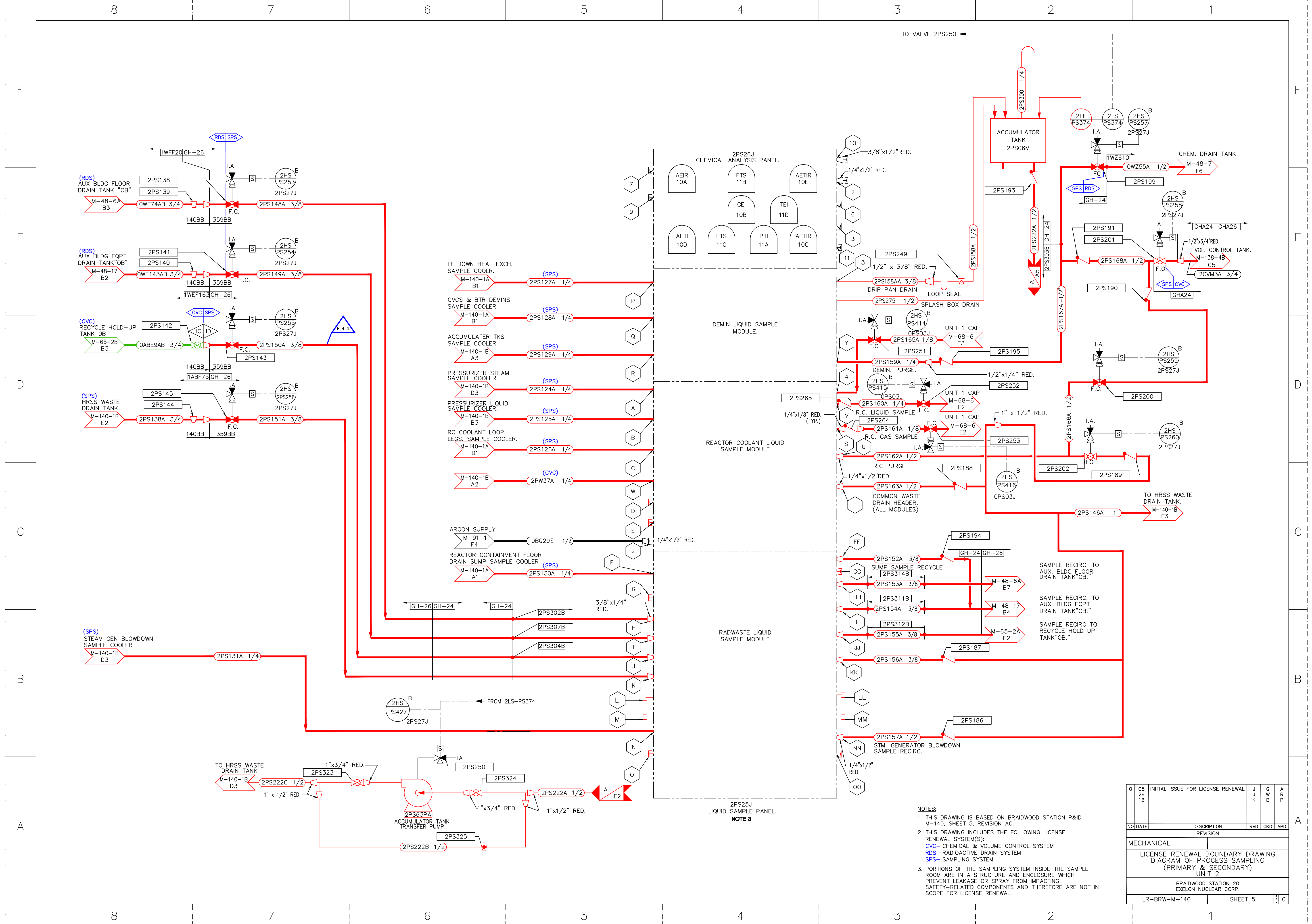




- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-140, SHEET 1B, REVISION F.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RCS- REACTOR COOLANT SYSTEM  
 SIS- SAFETY INJECTION SYSTEM  
 SPS- SAMPLING SYSTEM
  - THE SAMPLE COOLER PANEL COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM FOR AGING MANAGEMENT REVIEW.
  - PIPING AND COMPONENTS BEYOND THIS POINT DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SYSTEMS, STRUCTURES, AND COMPONENTS BECAUSE THEY DO NOT CONTAIN WATER, STEAM, OR OIL AND ARE, THEREFORE, NOT IN SCOPE FOR LICENSE RENEWAL.
  - THE SPARE SAMPLE COOLER PANEL COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE COMPONENT COOLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SAMPLING SYSTEM, AND ARE NOT IN SCOPE FOR LICENSE RENEWAL BECAUSE THEY ARE DRAINED AND, THEREFORE, DO NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION WITH SAFETY-RELATED SSCs.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
29	13		K	W	R
				B	P
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF PROCESS SAMPLING					
UNIT 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-140 SHEET 1B 0					

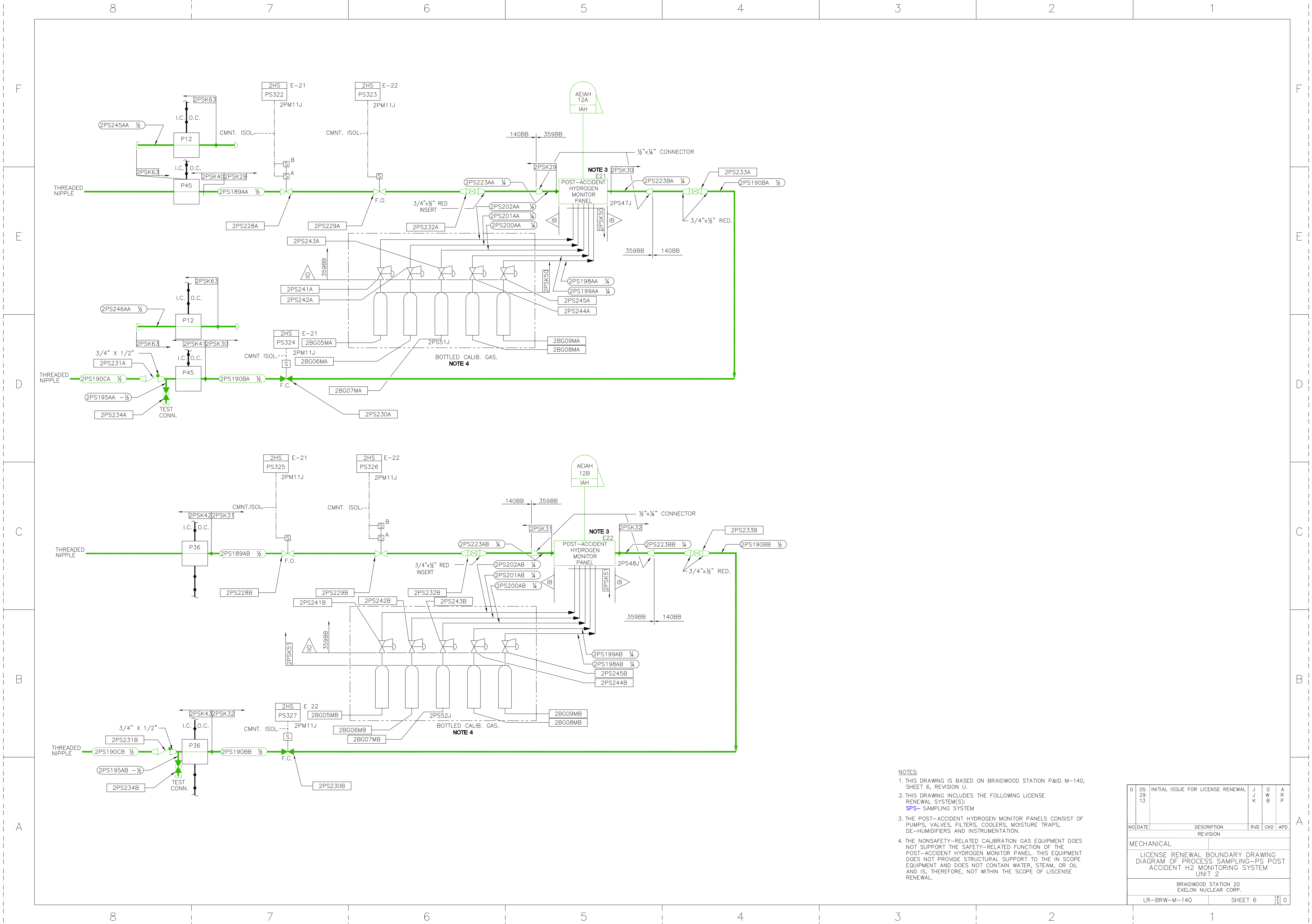




**NOTES:**

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-140, SHEET 5, REVISION AC.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 CVC- CHEMICAL & VOLUME CONTROL SYSTEM  
 RDS- RADIOACTIVE DRAIN SYSTEM  
 SPS- SAMPLING SYSTEM
- PORTIONS OF THE SAMPLING SYSTEM INSIDE THE SAMPLE ROOM ARE IN A STRUCTURE AND ENCLOSURE WHICH PREVENT LEAKAGE OR SPRAY FROM IMPACTING SAFETY-RELATED COMPONENTS AND THEREFORE ARE NOT IN SCOPE FOR LICENSE RENEWAL.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
29	13		K	W	R
13				B	P
NO DATE		DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PROCESS SAMPLING (PRIMARY & SECONDARY) UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-140		SHEET 5	0		



- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-140, SHEET 6, REVISION U.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SPS- SAMPLING SYSTEM
  3. THE POST-ACCIDENT HYDROGEN MONITOR PANELS CONSIST OF PUMPS, VALVES, FILTERS, COOLERS, MOISTURE TRAPS, DE-HUMIDIFIERS AND INSTRUMENTATION.
  4. THE NONSAFETY-RELATED CALIBRATION GAS EQUIPMENT DOES NOT SUPPORT THE SAFETY-RELATED FUNCTION OF THE POST-ACCIDENT HYDROGEN MONITOR PANEL. THIS EQUIPMENT DOES NOT PROVIDE STRUCTURAL SUPPORT TO THE IN-SCOPE EQUIPMENT AND DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	J K	G W B	A R P
NO DATE	DESCRIPTION	RVD	CKD	APD
REVISION				
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PROCESS SAMPLING-PS POST ACCIDENT H2 MONITORING SYSTEM UNIT 2				
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.				
LR-BRW-M-140	SHEET 6	0		



8

7

6

5

4

3

2

1

F

E

D

C

B

A

F

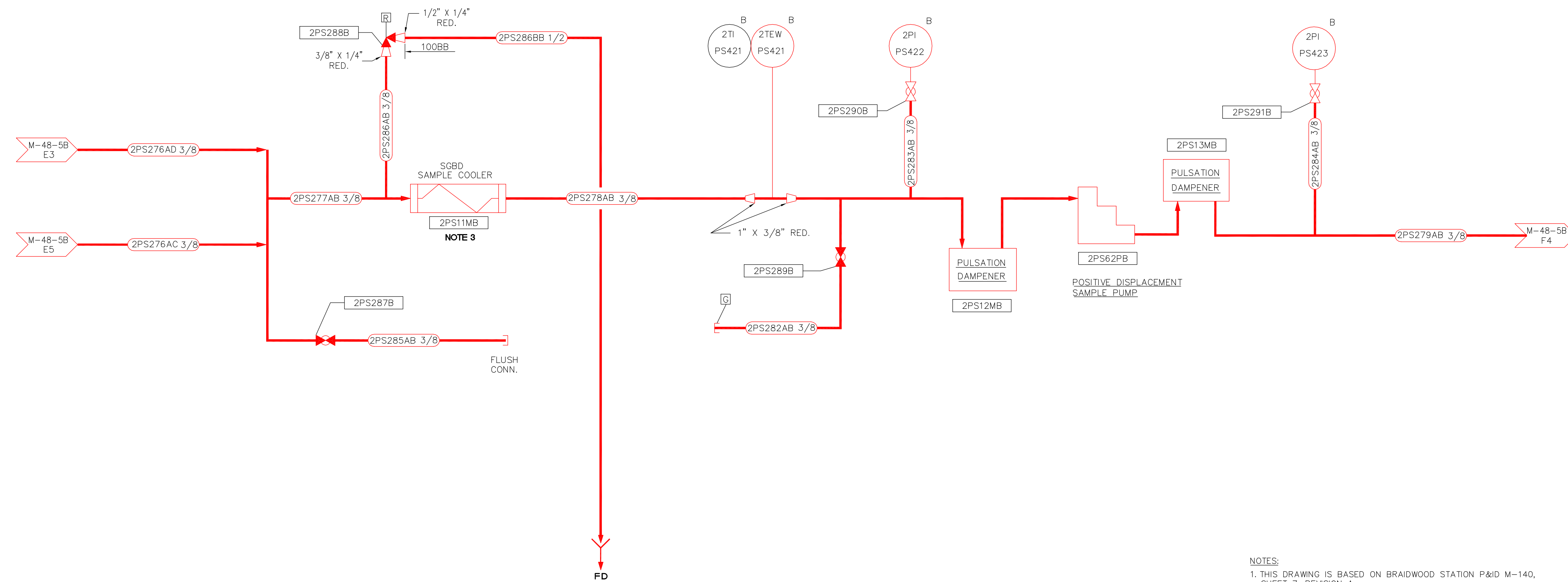
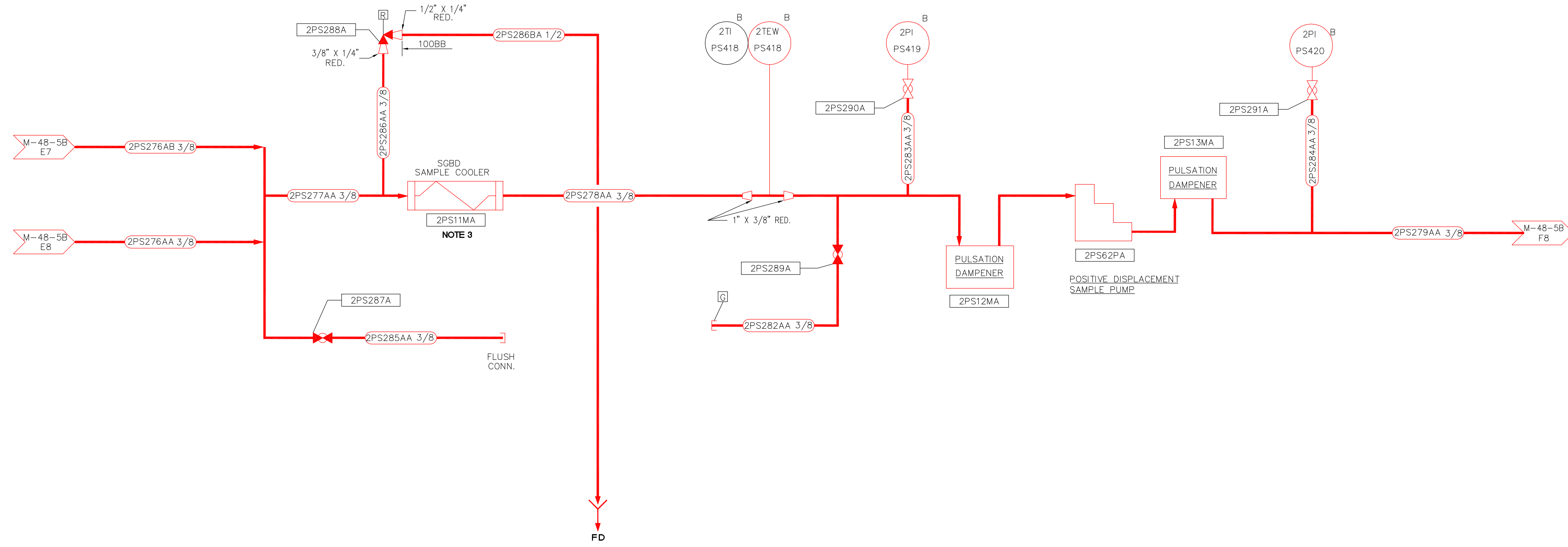
E

D

C

B

A



- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-140, SHEET 7, REVISION A.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SPS- SAMPLING SYSTEM
  - THE SGBD SAMPLE COOLER HEAT EXCHANGER IS A PLATE-TYPE HEAT EXCHANGER. THE PROCESS SIDE PLATES, NOZZLES AND TIE BARS ARE EVALUATED WITH THE SAMPLING SYSTEM FOR AGING MANAGEMENT REVIEW. THE COOLING SIDE PLATES AND NOZZLES ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	J	G	A
29	13		K	B	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF PROCESS SAMPLING (PS) (PRIMARY & SECONDARY) UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-140		SHEET 7		0	

8

7

6

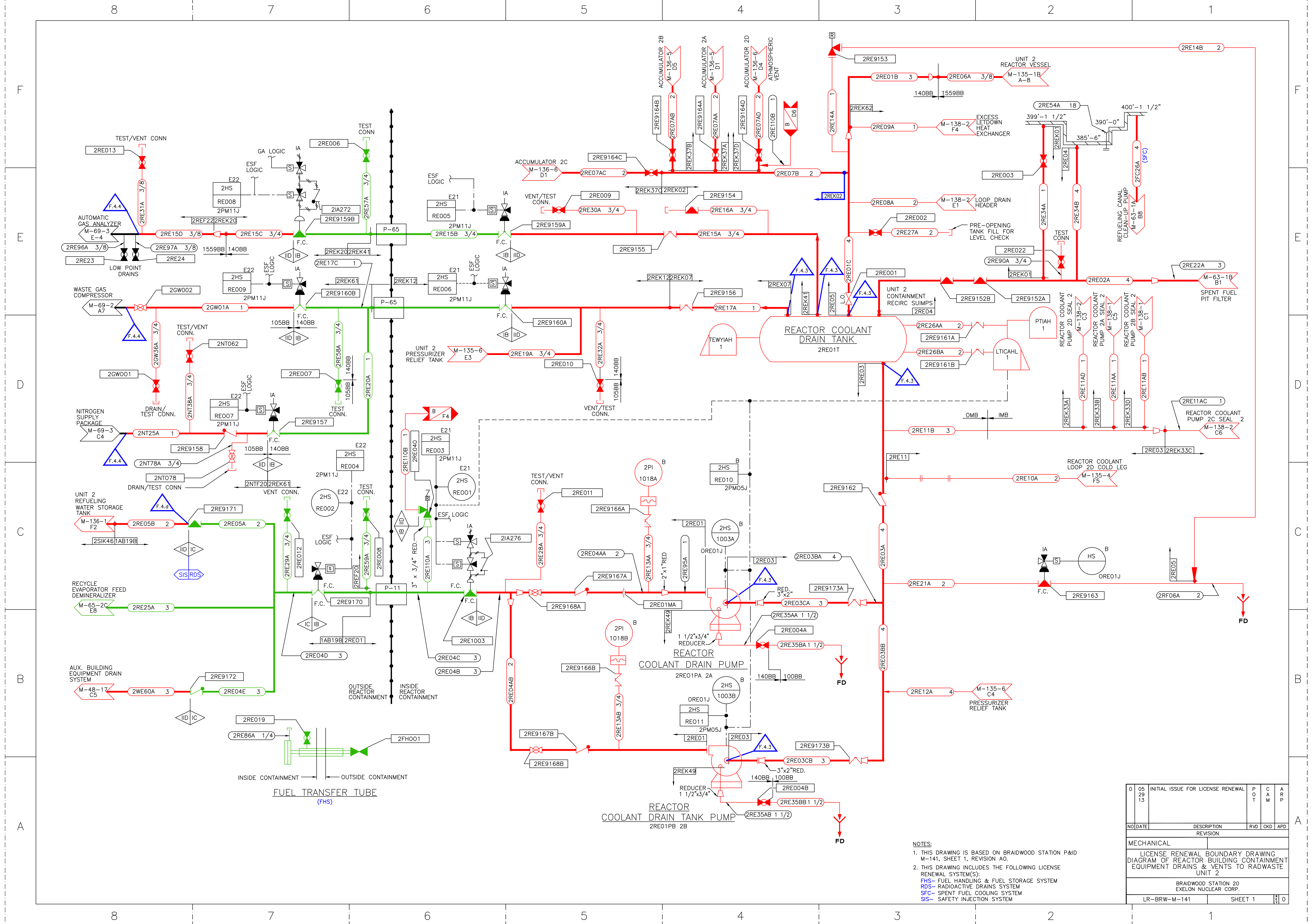
5

4

3

2

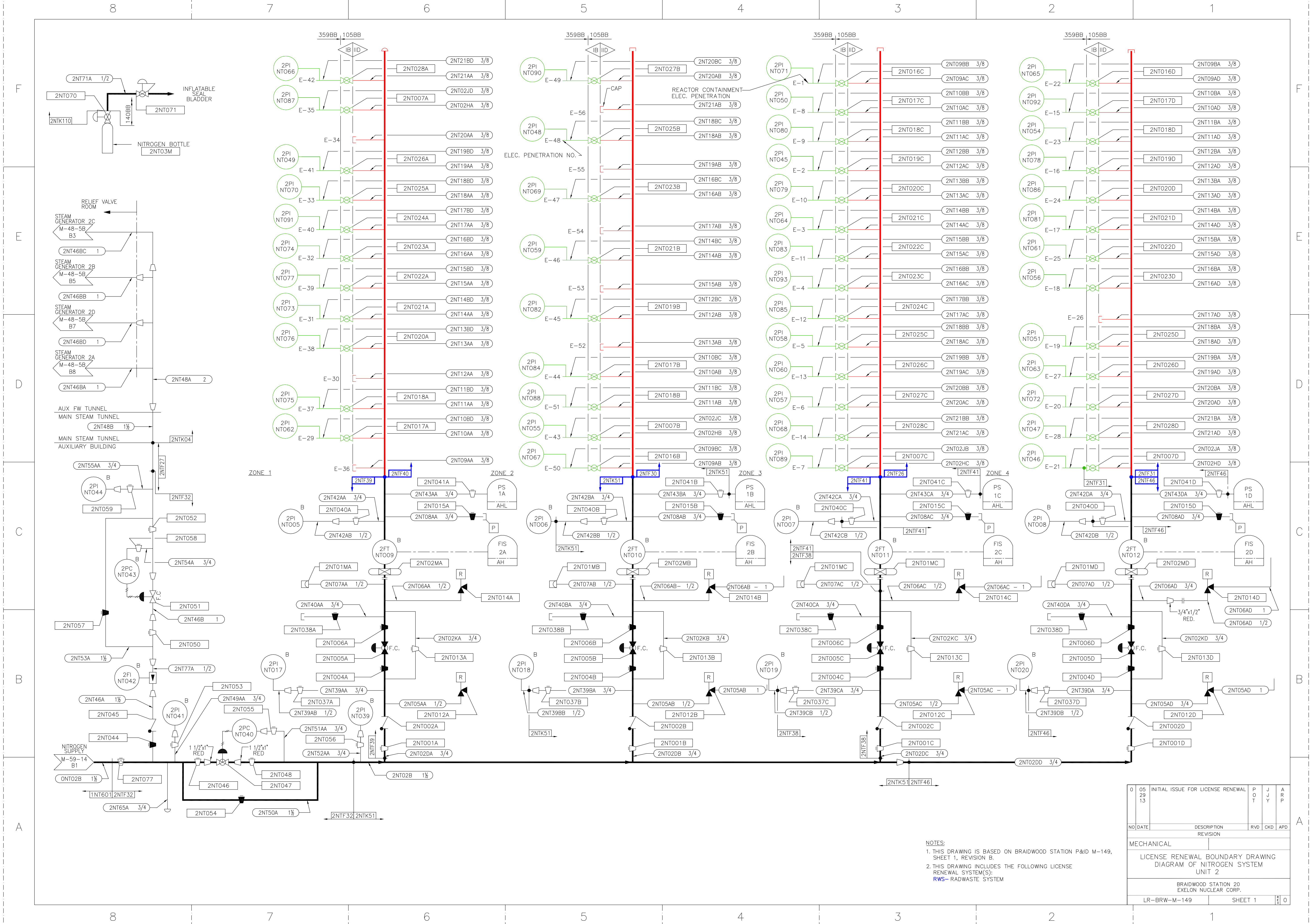
1



NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-141, SHEET 1, REVISION A0.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 FHS - FUEL HANDLING & FUEL STORAGE SYSTEM  
 RDS - RADIOACTIVE DRAINS SYSTEM  
 SFC - SPENT FUEL COOLING SYSTEM  
 SIS - SAFETY INJECTION SYSTEM

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
29	13		O	A	M	P
13						
NO	DATE	DESCRIPTION	RVD	CKD	APD	
MECHANICAL						
LICENSE RENEWAL BOUNDARY DRAWING						
DIAGRAM OF REACTOR BUILDING CONTAINMENT						
EQUIPMENT DRAINS & VENTS TO RADWASTE						
UNIT 2						
BRAIDWOOD STATION 20						
EXELON NUCLEAR CORP.						
LR-BRW-M-141			SHEET 1		0	

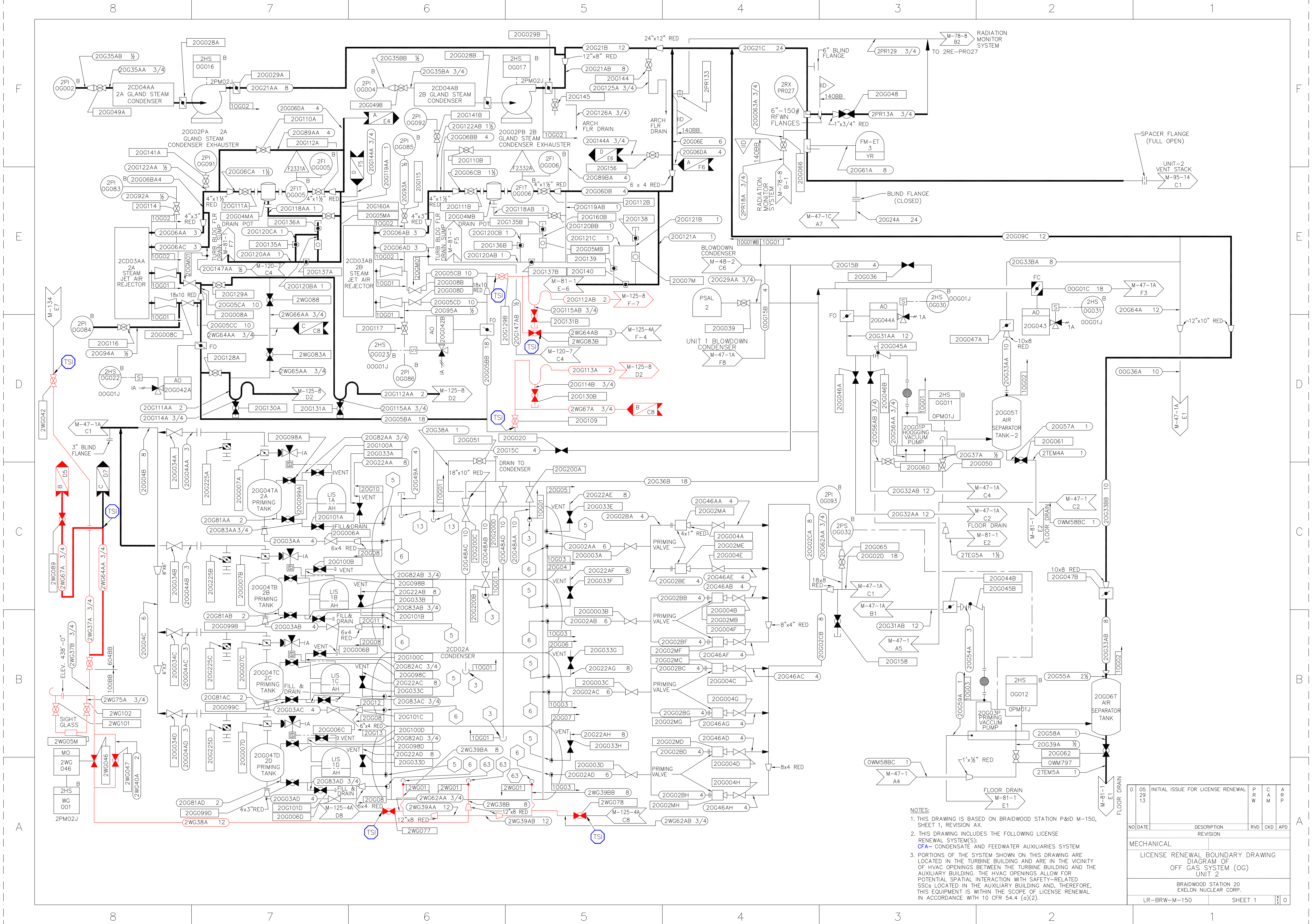




NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-149, SHEET 1, REVISION B.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 RWS - RADWASTE SYSTEM

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A	
		O	J	R	
		T	J	P	
			Y		
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF NITROGEN SYSTEM UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-149 SHEET 1 0					



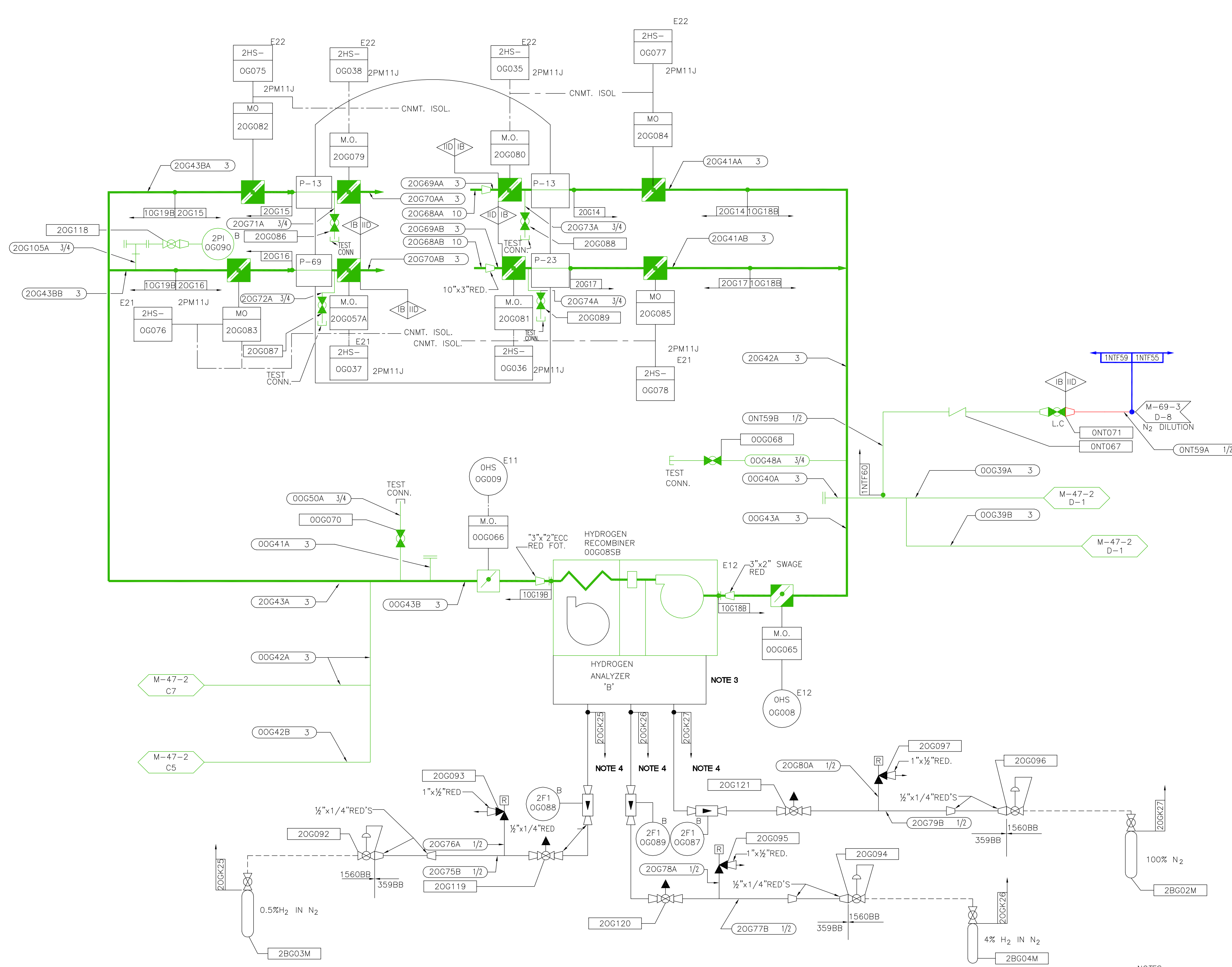


NOTES:

- THIS DRAWING IS BASED ON BRADWOOD STATION P&ID M-150, SHEET 1, REVISION AX.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CFA- CONDENSATE AND FEEDWATER AUXILIARIES SYSTEM
- PORTIONS OF THE SYSTEM SHOWN ON THIS DRAWING ARE LOCATED IN THE TURBINE BUILDING AND ARE IN THE VICINITY OF HVAC OPENINGS BETWEEN THE TURBINE BUILDING AND THE AUXILIARY BUILDING. THE HVAC OPENINGS ALLOW FOR POTENTIAL SPATIAL INTERACTION WITH SAFETY-RELATED SSCs LOCATED IN THE AUXILIARY BUILDING AND, THEREFORE, THIS EQUIPMENT IS WITHIN THE SCOPE OF LICENSE RENEWAL IN ACCORDANCE WITH 10 CFR 54.4 (g)(2).

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
29	13		W		M		P
		REVISION					
		DESCRIPTION					
		NO DATE					
		MECHANICAL					
		LICENSE RENEWAL BOUNDARY DRAWING					
		DIAGRAM OF					
		OFF GAS SYSTEM (OG)					
		UNIT 2					
		BRADWOOD STATION 20					
		EXELON NUCLEAR CORP.					
		LR-BRW-M-150					
		SHEET 1					

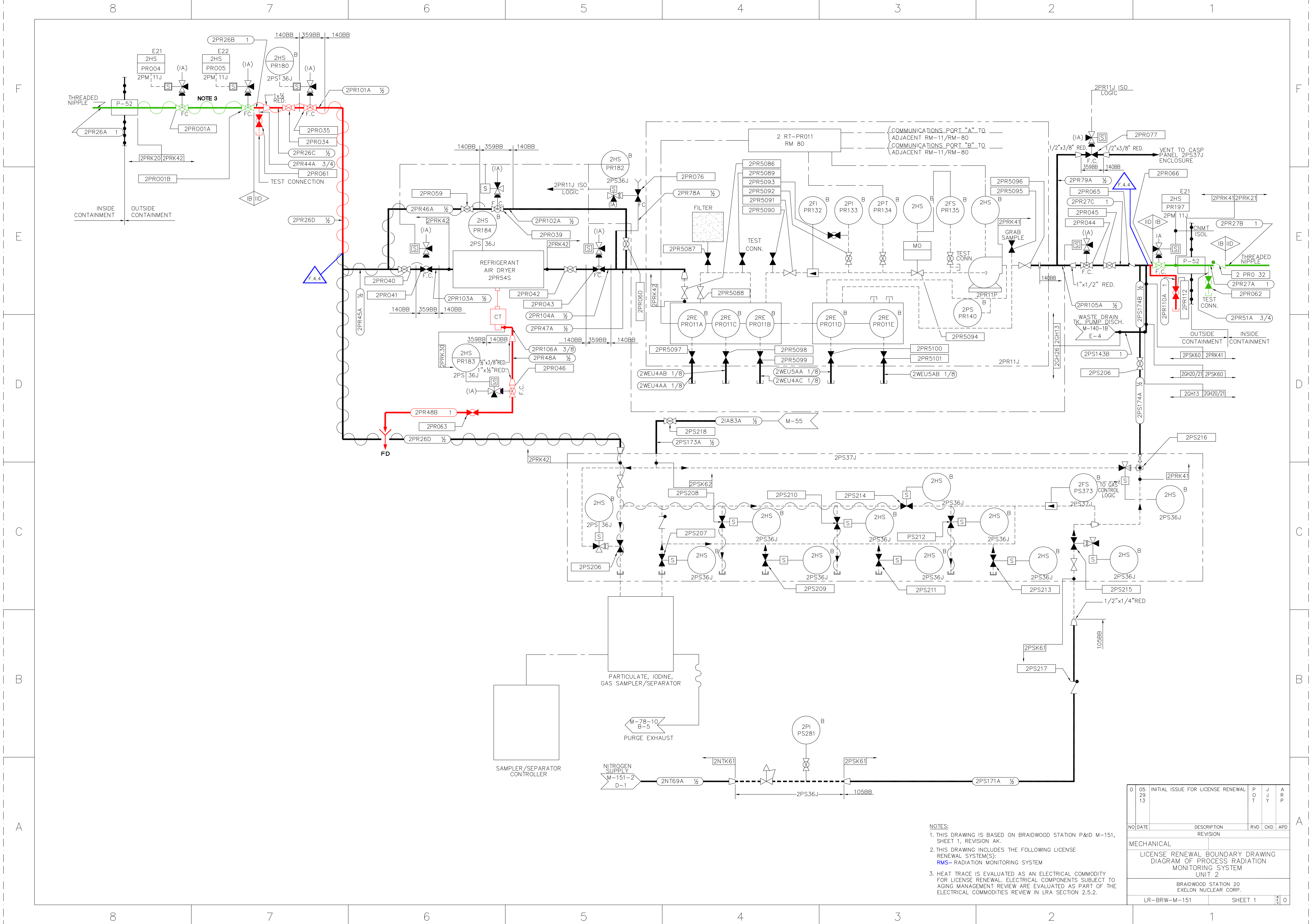




**NOTES:**

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-150, SHEET 2, REVISION AB.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CGC- COMBUSTIBLE GAS CONTROL.
3. THE HYDROGEN ANALYZER IS NONSAFETY-RELATED.
4. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED TO PROVIDE STRUCTURAL SUPPORT FOR THE SAFETY-RELATED HYDROGEN RECOMBINER OR SAFETY-RELATED PIPING. THE CREDITED SEISMIC SUPPORTS ARE LOCATED ON THE HYDROGEN RECOMBINER SKID AND SAFETY-RELATED PIPING. THE PIPING BEYOND THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT DOES NOT CONTAIN WATER, STEAM, OR OIL AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	A	C	A
29	13		J	A	R
			F	M	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF OFF GAS SYSTEM FOR HYDROGEN RECOMBINERS UNIT 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-150		SHEET 2		0	



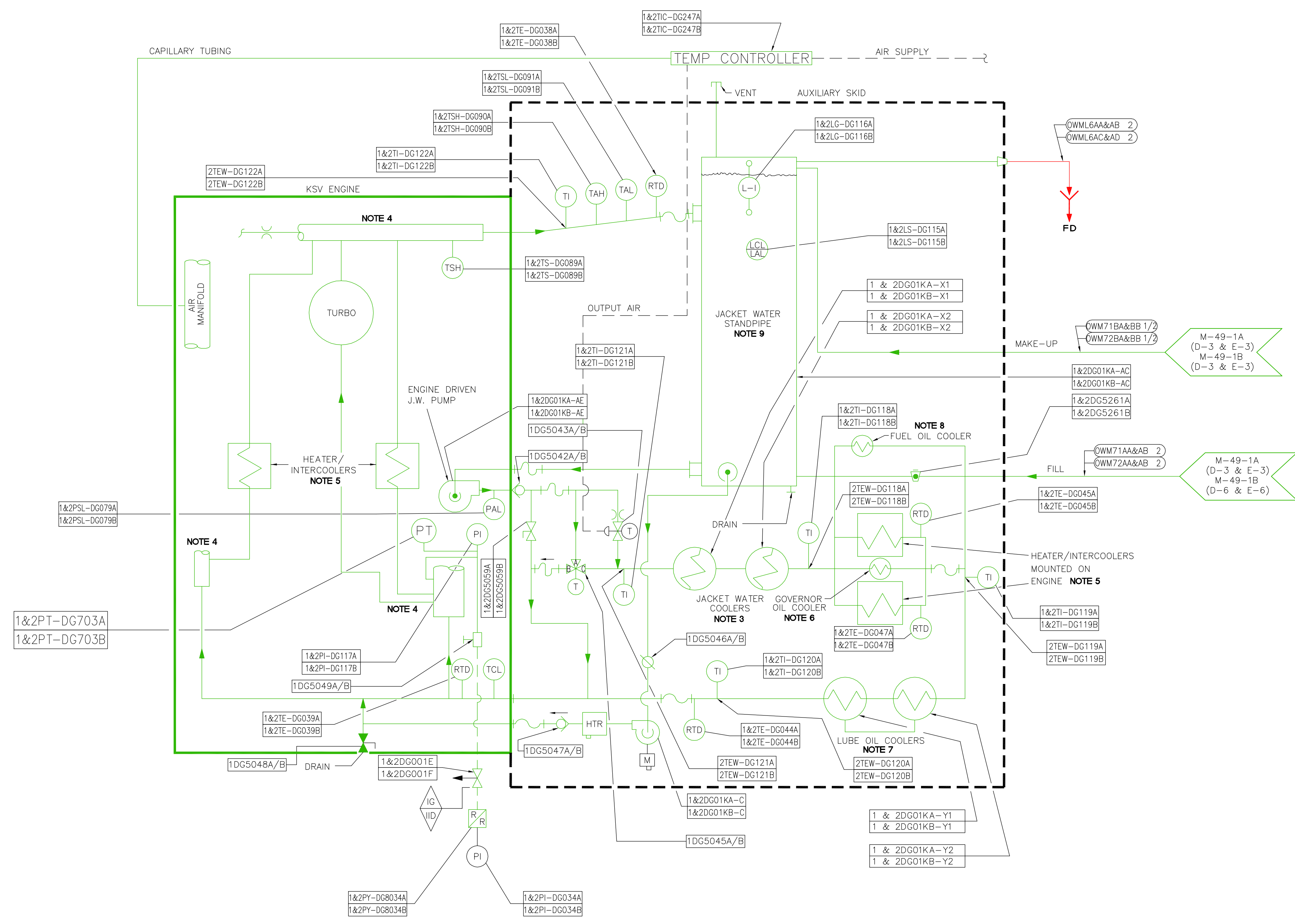
NOTE 3

- NOTES:
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-151, SHEET 1, REVISION AK.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
RMS - RADIATION MONITORING SYSTEM
  - HEAT TRACE IS EVALUATED AS AN ELECTRICAL COMMODITY FOR LICENSE RENEWAL. ELECTRICAL COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW ARE EVALUATED AS PART OF THE ELECTRICAL COMMODITIES REVIEW IN LRA SECTION 2.5.2.

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29		O	J	R
13		T	Y	P
NO DATE		DESCRIPTION		APD
		REVISION		
MECHANICAL				
LICENSE RENEWAL BOUNDARY DRAWING				
DIAGRAM OF PROCESS RADIATION				
MONITORING SYSTEM				
UNIT 2				
BRAIDWOOD STATION 20				
EXELON NUCLEAR CORP.				
LR-BRW-M-151		SHEET 1		0



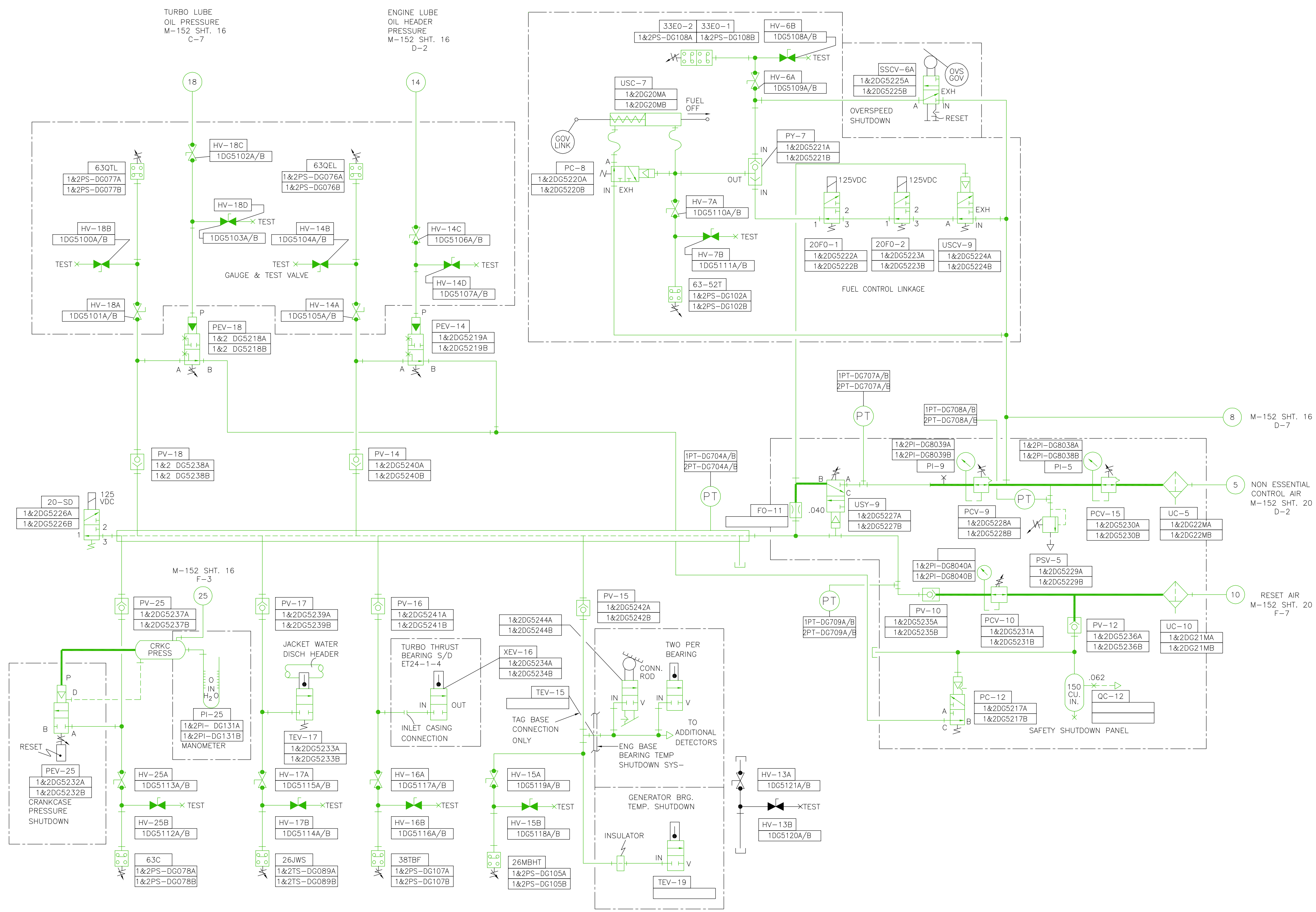




- NOTES:**
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-152, SHEET 14, REVISION V.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM
  3. THE JACKET WATER COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR AND AUXILIARIES SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE SERVICE WATER SYSTEM FOR AGING MANAGEMENT REVIEW.
  4. THE INLET AND OUTLET JACKET WATER MANIFOLDS ARE PART OF THE ACTIVE DIESEL GENERATOR ASSEMBLY AND ARE, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  5. THE HEATER/INTERCOOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR SYSTEM FOR AGING MANAGEMENT REVIEW.
  6. THE GOVERNOR OIL COOLER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR SYSTEM FOR AGING MANAGEMENT REVIEW.
  7. THE LUBE OIL COOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR SYSTEM FOR AGING MANAGEMENT REVIEW.
  8. THE FUEL OIL COOLER HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR SYSTEM FOR AGING MANAGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR SYSTEM FOR AGING MANAGEMENT REVIEW.
  9. THE JACKET WATER STANDPIPE IS INCLUDED WITH COMPONENT TYPE "PIPING, PIPING COMPONENTS, AND PIPING ELEMENTS" FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.

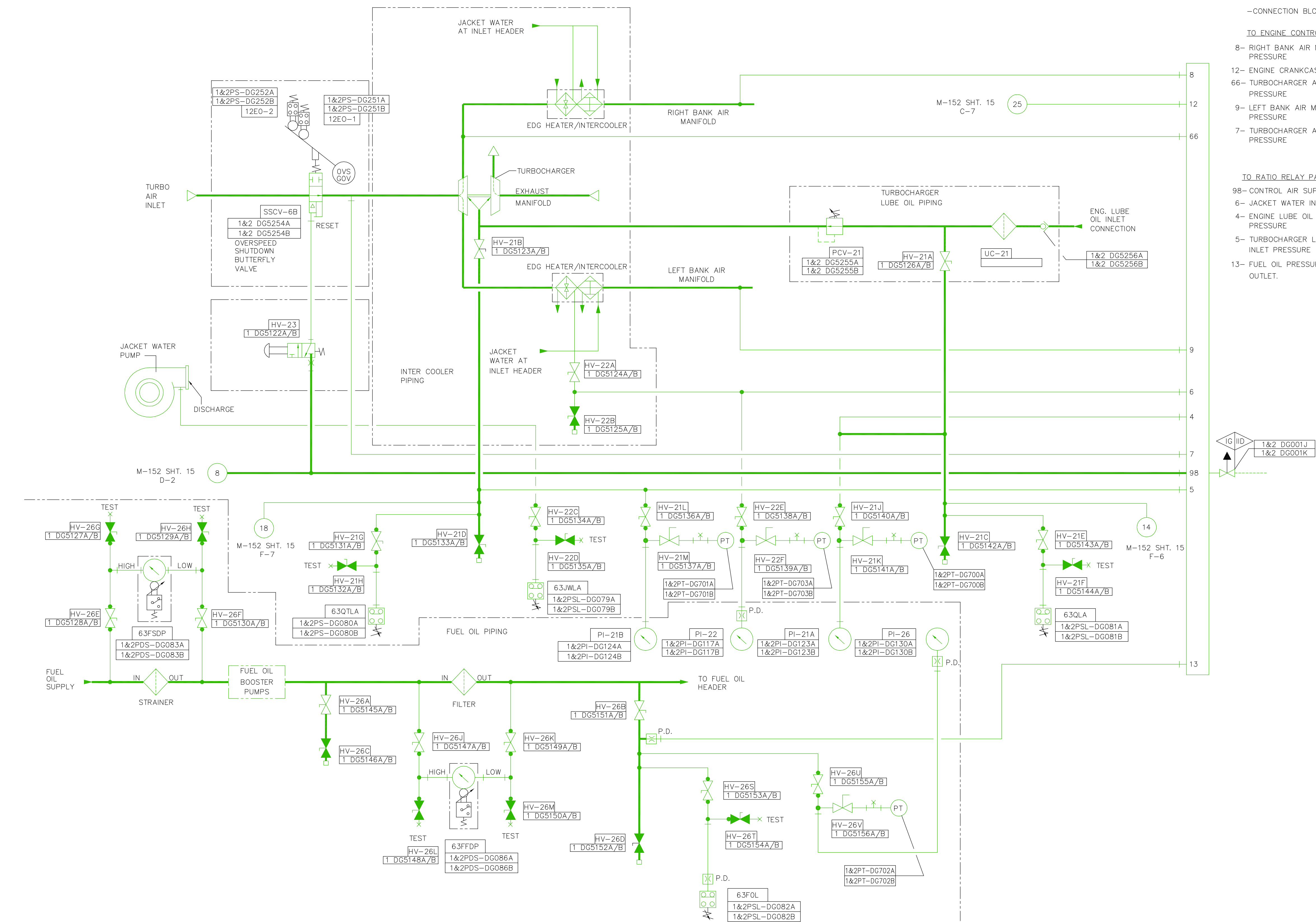
0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A
29	13		R	A	R
			W	M	P
REVISION					
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
MANUFACTURERS SUPPLEMENTAL DIAGRAM OF					
DIESEL GENERATOR JACKET WATER SCHEMATIC					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-152			SHEET 14		0



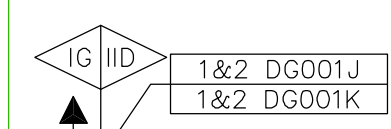


NOTES:  
 1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-152, SHEET 15, REVISION L.  
 2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
 EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM  
 3. LR-BRW-M-152, SHEET 20A PROVIDES A LEGEND FOR VARIOUS COMPONENTS SHOWN ON THIS DRAWING.

05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
				R	A	M	P
NO	DATE		DESCRIPTION	RVD	CKD	APD	
MECHANICAL							
LICENSE RENEWAL BOUNDARY DRAWING MANUFACTURERS' SUPPLEMENTAL DIAGRAM OF DIESEL GENERATOR CONTROL DIAGRAM SHUTDOWN SYSTEM UNITS 1 & 2							
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.							
LR-BRW-M-152				SHEET 15			



- CONNECTION BLOCK LEGEND—
- TO ENGINE CONTROL PANEL
- 8- RIGHT BANK AIR MANIFOLD PRESSURE
  - 12- ENGINE CRANKCASE PRESSURE
  - 66- TURBOCHARGER AIR DISCHARGE PRESSURE
  - 9- LEFT BANK AIR MANIFOLD PRESSURE
  - 7- TURBOCHARGER AIR INLET PRESSURE
- TO RATIO RELAY PANEL KSV-26-B
- 98- CONTROL AIR SUPPLY
  - 6- JACKET WATER INLET PRESSURE
  - 4- ENGINE LUBE OIL HEADER PRESSURE
  - 5- TURBOCHARGER LUBE OIL INLET PRESSURE
  - 13- FUEL OIL PRESSURE AT FILTER OUTLET.

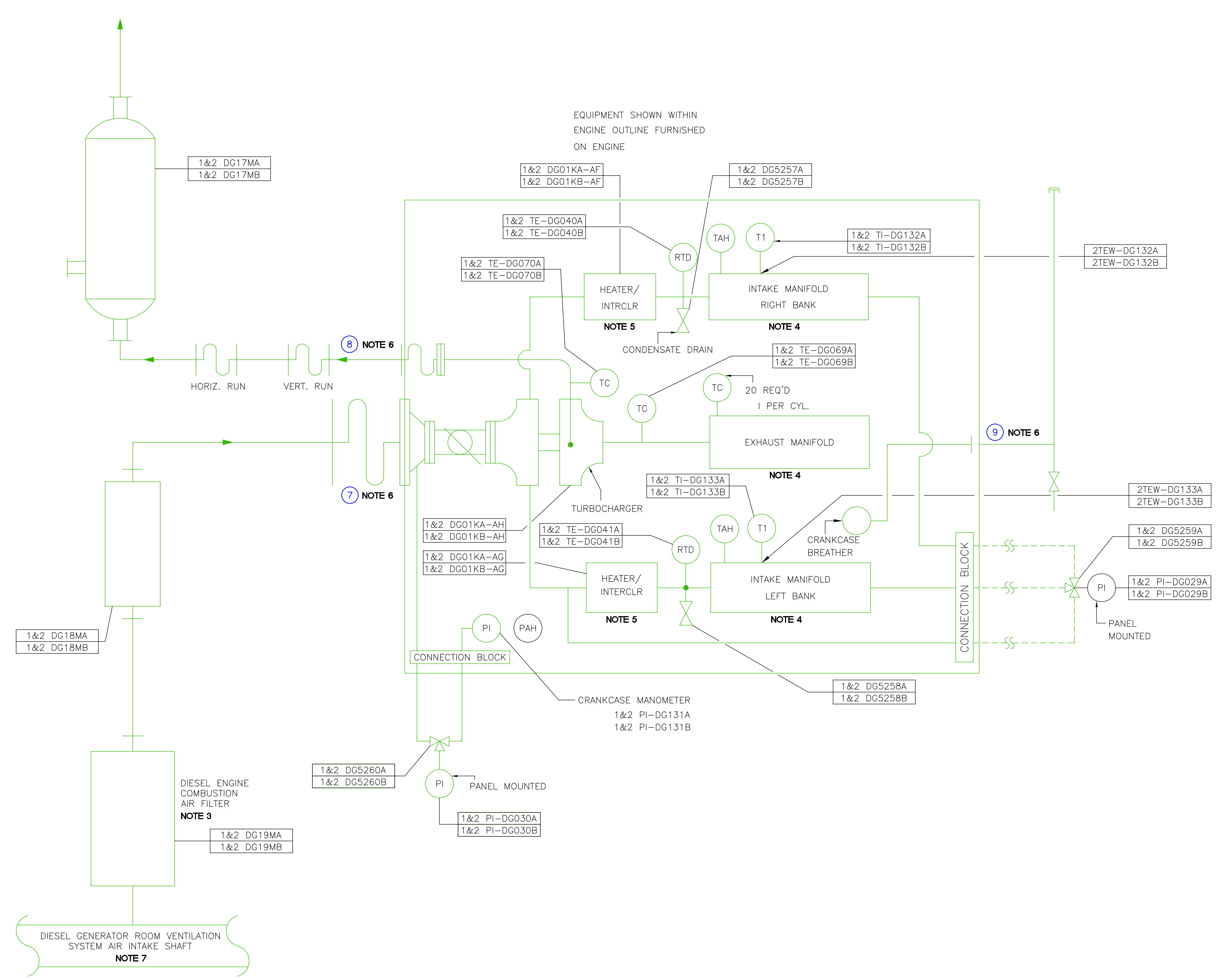


NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-152, SHEET 16, REVISION F.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM
- THE INTAKE AND EXHAUST MANIFOLDS, TURBOCHARGER, AND JACKET WATER INLET HEADER ARE PART OF THE ACTIVE DIESEL GENERATOR ASSEMBLY AND ARE, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
- LR-BRW-M-152, SHEET 20A, PROVIDES A LEGEND FOR VARIOUS COMPONENTS SHOWN ON THIS DRAWING.

0	05	29	13	INITIAL ISSUE FOR LICENSE RENEWAL	P	R	C	A	R
					W		A		P
NO	DATE	DESCRIPTION			RVD	CKD	APD		
REVISION									
MECHANICAL									
LICENSE RENEWAL BOUNDARY DRAWING MANUFACTURERS SUPPLEMENTAL DIAGRAM DIESEL GENERATOR ASSEMBLY AND ALARMS PRESSURE GAUGE LINES AND ALARMS UNITS 1 & 2									
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.									
LR-BRW-M-152				SHEET 16		0			





EQUIPMENT SHOWN WITHIN  
ENGINE OUTLINE FURNISHED  
ON ENGINE

- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-152, SHEET 17, REVISION C.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM
  - THE DIESEL ENGINE COMBUSTION AIR INTAKE FILTER ELEMENTS ARE PERIODICALLY REPLACED AND ARE, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.
  - THE INTAKE AND EXHAUST MANIFOLDS ARE PART OF THE ACTIVE DIESEL GENERATOR ASSEMBLY AND ARE, THEREFORE, NOT SUBJECT TO LICENSE RENEWAL AGING MANAGEMENT REVIEW.
  - THE HEATER/INTERCOOLERS HEAT EXCHANGER SHELL SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR SYSTEM FOR AGING MANGEMENT REVIEW. THE TUBE SIDE COMPONENTS ARE EVALUATED WITH THE EMERGENCY DIESEL GENERATOR SYSTEM FOR AGING MANAGEMENT REVIEW.
  - ITEMS 7, 8, AND 9 CAN BE CROSS REFERENCED TO THE FOLLOWING DRAWINGS:  
E. LR-BRW-M-50, SHEET 1C  
F. LR-BRW-M-50, SHEET 1D  
G. LR-BRW-M-130, SHEET 1A  
H. LR-BRW-M-130, SHEET 1B
  - THE DIESEL GENERATOR ROOM VENTILATION SYSTEM AIR INTAKE SHAFT IS EVALUATED WITH THE AUXILIARY BUILDING VENTILATION SYSTEM FOR AGING MANAGEMENT REVIEW. SEE M-97, SHEET 1 (UNIT 1) AND M-98, SHEET 1 (UNIT 2) FOR AUXILIARY BUILDING VENTILATION SYSTEM CONTINUATION.

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A
29	13		R	A	R
13			W	M	P
NO	DATE	DESCRIPTION	RVD	CKD	APD
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING DIAGRAM OF AIR INTAKE AND EXHAUST SCHEMATIC UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-152		SHEET 17		0	





8

7

6

5

4

3

2

1

F

F

E

E

D

D

C

C

B

B

A

A

CODE	SERVICE
HV-1A	CONTROL AIR SHUT-OFF-L.B. CRANKING
HV-1B	DRAIN VALVE
HV-1C,D & E	INSTRUMENT SHUT-OFF VALVES
HV-1F,G, & H	INSTRUMENT TEST VALVES
PC-1	CRANKING AIR VALVE-L.B.
UC-1	AIR FILTER-L.B. CRANKING
PV-1	TURNING GEAR/CRANKING INTERLOCK
PY-1	SHUTTLE VALVE
HV-2A	CONTROL AIR SHUT-OFF-R.B. CRANKING
HV-2B	DRAIN VALVE
HV-2C,D, & E	INSTRUMENT SHUT-OFF VALVE
PC-2	CRANKING AIR VALVE-R.B.
UC-2	AIR FILTER-R.B. CRANKING
PV-2	TURNING GEAR/CRANKING INTERLOCK
PY-2	SHUTTLE VALVE
UC-3A	AIR STRAINER -L.B. CRANKING
PC-3	CHOKE CHECK VALVE
UC-3B	AIR FILTER-L.B. AIR DISTRIBUTOR
PY-3	AIR DISTRIBUTOR-L.B.
UC-4A	AIR STRAINER - R.B. CRANKING
PC-4	CHOKE CHECK VALVE
HV-5A & B	CONTROL AIR SHUT-OFF-REDUNDANT NON-ESSENTIAL
FV-5A & B	PNEUMATIC CIRCUIT BREAKERS
PY-5	SHUTTLE VALVE
UC-5	AIR FILTER
PCV-5	AIR PRESSURE REGULATOR-SET AT 80 PSIG
PI-5	PRESSURE INDICATOR
PSV-5	RELIEF VALVE-SET AT 90 PSIG RISING PRESSURE
SSCV-6A	TRIP VALVE-OVERSPPEED-FUEL SHUT-OFF
HV-6A	INSTRUMENT SHUT-OFF VALVE
HV-6B	INSTRUMENT TEST VALVE
PY-7	SHUTTLE VALVE
HV-7A	INSTRUMENT SHUT-OFF VALVE
HV-7B	INSTRUMENT TEST VALVE
USC-7	CONTROL CYLINDER-SAFETY TRIP-FUEL
PC-8	VALVE-FUEL CYLINDER CONTROL
PCV-9	AIR PRESSURE REGULATOR-SET AT PSIG
PI-9	PRESSURE INDICATOR
USY-9	PILOT VALVE-TEST MODE SAFETY TRIPS-SET TO TRIP AT 20 PSI FALLING PRESSURE
USCV-9	SAFETY TRIP VALVE-TEST MODE SAFETY TRIPS
UC-10	AIR FILTER-TEST MODE TRIP RESET
PCV-10	AIR PRESSURE REGULATOR-SET AT PSIG
PV-10	CHECK VALVE
FO-11	ORIFICE -.040 INDIA
PV-12	CHECK VALVE
OC-12	VOLUME BOTTLE/ORIFICE-TIMED TRIP LOCKOUT
PC-12	VALVE TEST MODE TRIP LOCKOUT

HV-13A	INSTRUMENT SHUT-OFF- VALVE
HV-13B	INSTRUMENT TEST VALVE
PV-14	CHECK VALVE
PEV-14	TRIP VALVE-ENGINE OIL PRESSURE-SET TO TRIP AT 30 PSI FALLING PRESSURE.
HV-14A & C	INSTRUMENT SHUT-OFF VALVES
HV-14B & D	INSTRUMENT TEST VALVES
PV-15	CHECK VALVE
TEV-15	TRIP SYSTEM-ENGINE BEARING TEMPERATURE
HV-15A	INSTRUMENT SHUT-OFF VALVE
HV-15B	INSTRUMENT TEST VALVE
PV-16	CHECK VALVE
XEV-16	TRIP VALVE-TURBO THRUST BEARING FAILUER
HV-16A	INSTRUMENT SHUT-OFF VALVE
HV-16B	INSTRUMENT TEST VALVE
PV-17	CHECK VALVE
TEV-17	TRIP VALVE-JACKET WATER TEMPERATURE
HV-17A	INSTRUMENT SHUT-OFF VALVE
HV-17B	INSTRUMENT TEST VALVE
PV-18	CHECK VALVE
PEV-18	TRIP VALVE-TURBO OIL PRESSURE-SET TO TRIP AT 30 PSI FALLING PRESSURE.
HV-18A & C	INSTRUMENT SHUT-OFF VALVES
HV-18B & D	INSTRUMENT TEST VALVES
TEV-19	TRIP VALVE-GENERATOR BEARING TEMPERATURE
PV-25	CHECK VALVE
PEV-25	TRIP VALVE-CRANKCASE PRESSURE-SET TO TRIP AT 0.5 PSIG RISING PRESSURE
PI-25	PRESSURE INDICATOR
HV-25A	INSTRUMENT SHUT-OFF VALVE
HV-25B	INSTRUMENT TEST VALVES
SSCV-6B	TRIP VALVE-OVERSPPEED-AIR SHUT-OFF
UC-21	FILTER-TURBO LUBE OIL
PCV-21	LUBE OIL REGULATOR-TURBO-SET AT 35 PSIG
HV-21A	PROCESS SHUT-OFF VALVE-ENGINE LUBE OIL SYSTEM
HV-21B	PROCESS SHUT-OFF VALVE-TURBO LUBE OIL SYSTEM
HV-21C	BLOWDOWN VALVE-ENGINE LUBE OIL SYSTEM
HV-21D	BLOWDOWN VALVE-TURBO LUBE OIL SYSTEM
HV-21E,G,J, & L	INSTRUMENT SHUT-OFF VALVES
HV-21F,H,K, & M	INSTRUMENT TEST VALVES
PI-21A	PRESSURE INDICATOR-ENGINE LUBE OIL
PI-21B	PRESSURE INDICATOR-TURBO LUBE OIL
HV-22A	PROCESS SHUT-OFF VALVE-ENGINE JACKET WATER SYSTEM
HV-22B	BLOWDOWN VALVE-JACKET WATER SYSTEM
HV-22C & E	INSTRUMENT SHUT-OFF VALVES
HV-22D & F	INSTRUMENT TEST VALVES
PI-22	PRESSURE INDICATOR- JACKET WATER
HV-23	VALVE-RESET-OVER SPEED AIR TRIP VALVE (SSCV-6B)
HV-26A & B	PROCESS SHUT-OFF VALVES-FUEL OIL SYSTEM
HV-26C & D	BLOWDOWN VALVES-FUEL OIL SYSTEM
HV-26E,F,J,K, N,P,S & U	INSTRUMENT TEST SHUT-OFF VALVES
HV-26G,H,L,M, Q,R,T, & V	INSTRUMENT TEST VALVES
PI-26	PRESSURE INDICATOR- FUEL OIL
HV-2F,G, & H	INSTRUMENT TEST VALVES
UC-4B	AIR FILTER- R.B. AIR DISTRIBUTOR
PY-4	AIR DISTRIBUTOR-R.B.
HV-3A & 4A	INSTRUMENT SHUT-OFF VALVES
HV-3B & 4B	INSTRUMENT TEST VALVES

EQUIPMENT Nos 1DG01KA,1DG01KB, 2DG01KA, 2DG01KB

NOTES:

- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID KSV-36-13, SHEET 4, REVISION 11.
- THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM:  
EDG- EMERGENCY DIESEL GENERATOR & AUXILIARIES SYSTEM
- THE AIR FILTER ELEMENTS ARE PERIODICALLY REPLACED AND ARE, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P R W	C A M	A R P	
NO	DATE	DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING SPEC. L-2742 CONTROL DIAGRAM UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-152		SHEET 20A		0	

8

7

6

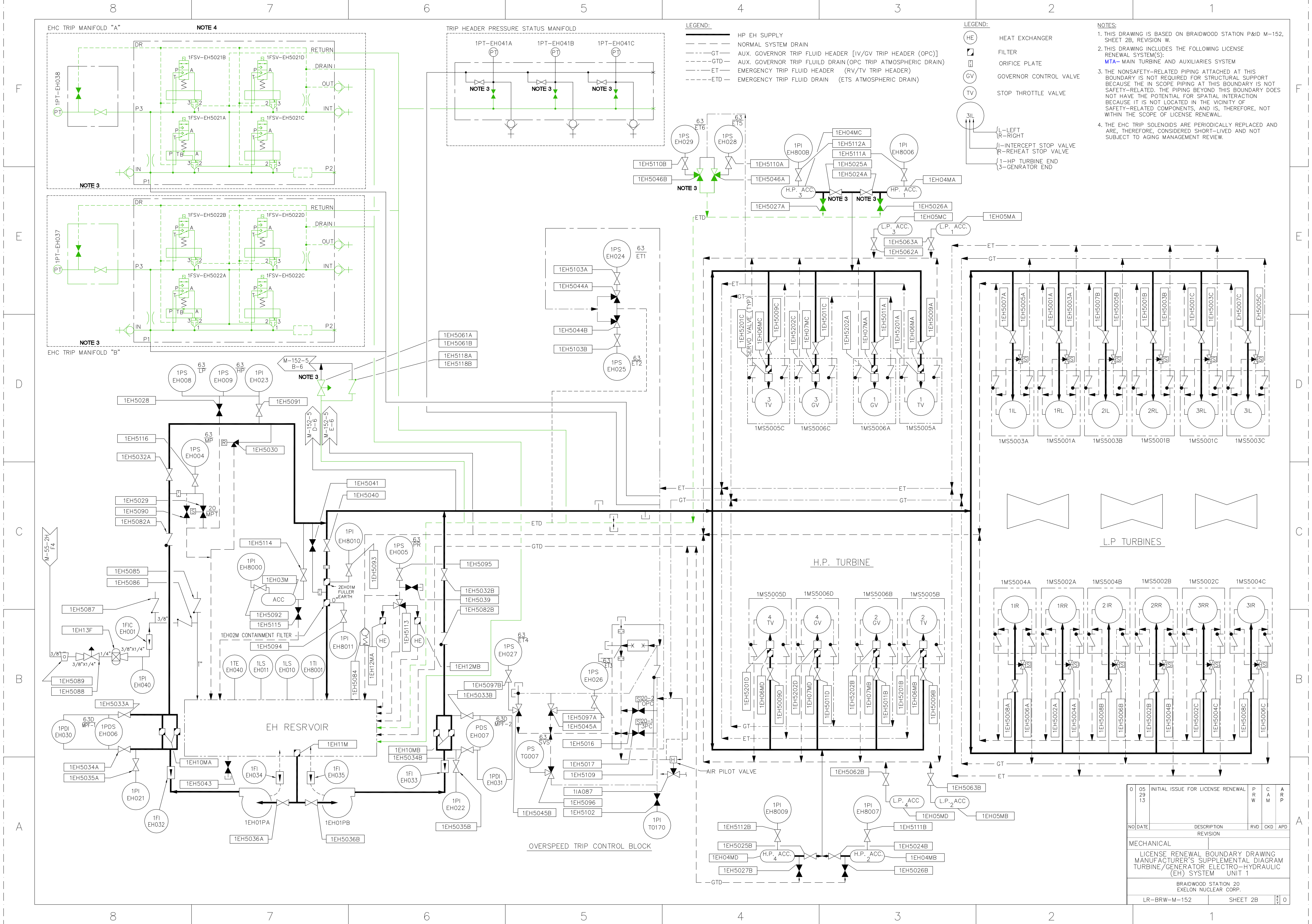
5

4

3

2

1



LEGEND:

- HP EH SUPPLY
- NORMAL SYSTEM DRAIN
- - - GT - AUX. GOVERNOR TRIP FLUID HEADER [IV/GV TRIP HEADER (OPC)]
- - - GTD - AUX. GOVERNOR TRIP FLUID DRAIN (OPC TRIP ATMOSPHERIC DRAIN)
- - - ET - EMERGENCY TRIP FLUID HEADER (RV/TV TRIP HEADER)
- - - ETD - EMERGENCY TRIP FLUID DRAIN (ETS ATMOSPHERIC DRAIN)

LEGEND:

- HE - HEAT EXCHANGER
- - FILTER
- - ORIFICE PLATE
- GV - GOVERNOR CONTROL VALVE
- TV - STOP THROTTLE VALVE
- 3IL - L-LEFT, R-RIGHT
- I - INTERCEPT STOP VALVE
- R - REHEAT STOP VALVE
- 1 - HP TURBINE END
- 3 - GENRATOR END

NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-152, SHEET 2B, REVISION W.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
MTA - MAIN TURBINE AND AUXILIARIES SYSTEM
3. THE NONSAFETY-RELATED PIPING ATTACHED AT THIS BOUNDARY IS NOT REQUIRED FOR STRUCTURAL SUPPORT BECAUSE THE IN SCOPE PIPING AT THIS BOUNDARY DOES NOT HAVE THE POTENTIAL FOR SPATIAL INTERACTION BECAUSE IT IS NOT LOCATED IN THE VICINITY OF SAFETY-RELATED COMPONENTS, AND IS, THEREFORE, NOT WITHIN THE SCOPE OF LICENSE RENEWAL.
4. THE EHC TRIP SOLENOIDS ARE PERIODICALLY REPLACED AND ARE, THEREFORE, CONSIDERED SHORT-LIVED AND NOT SUBJECT TO AGING MANAGEMENT REVIEW.

05	INITIAL ISSUE FOR LICENSE RENEWAL	P	C	A	R
29		R	A	M	P
13		W			
NO DATE	DESCRIPTION	RVD	CKD	APD	
	REVISION				
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
MANUFACTURER'S SUPPLEMENTAL DIAGRAM					
TURBINE/GENERATOR ELECTRO-HYDRAULIC (EH) SYSTEM UNIT 1					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-152					
SHEET 2B					





8

7

6

5

4

3

2

1

F

F

E

E

D

D

C

C

B

B

A

A

8

7

6

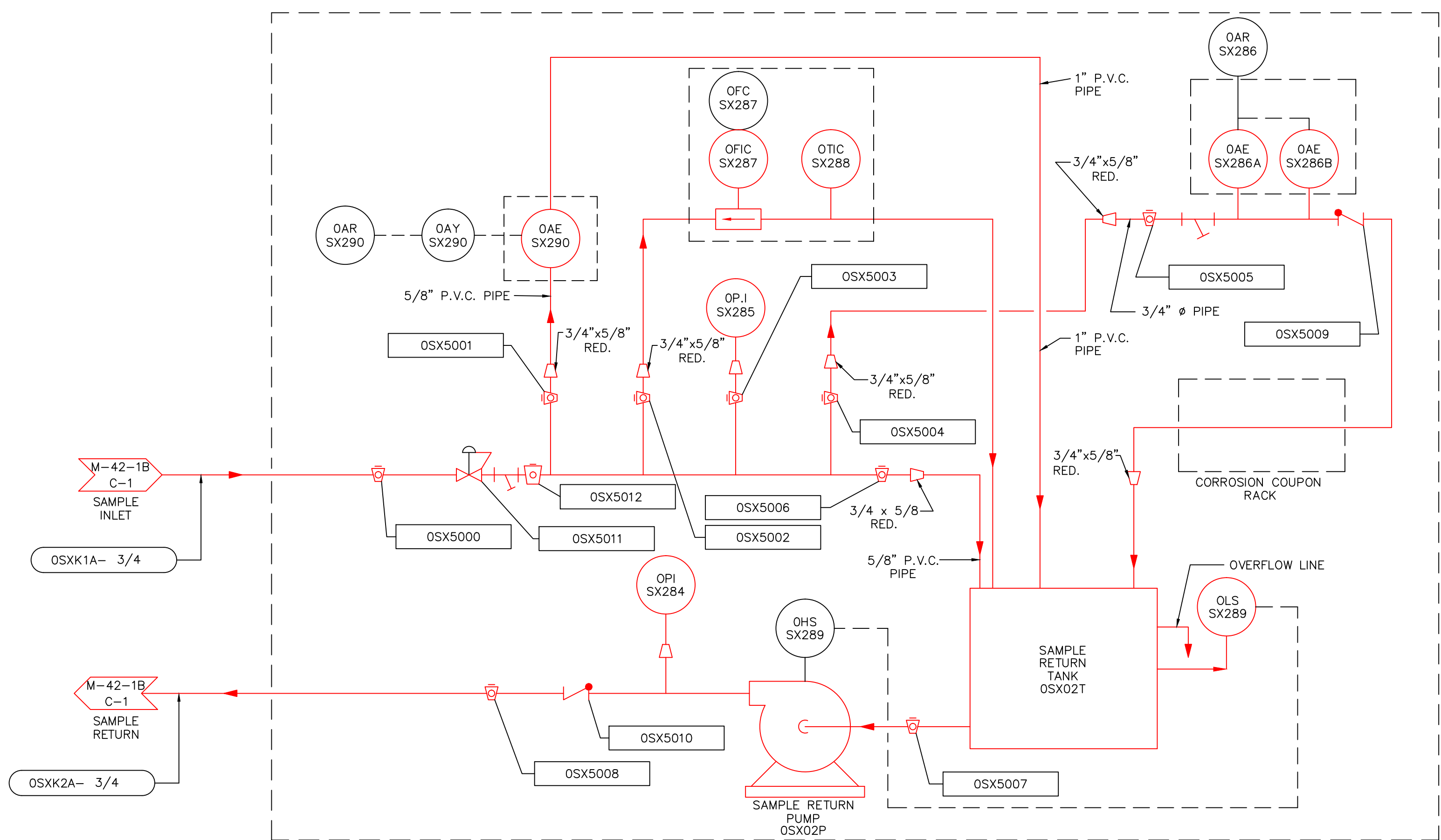
5

4

3

2

1

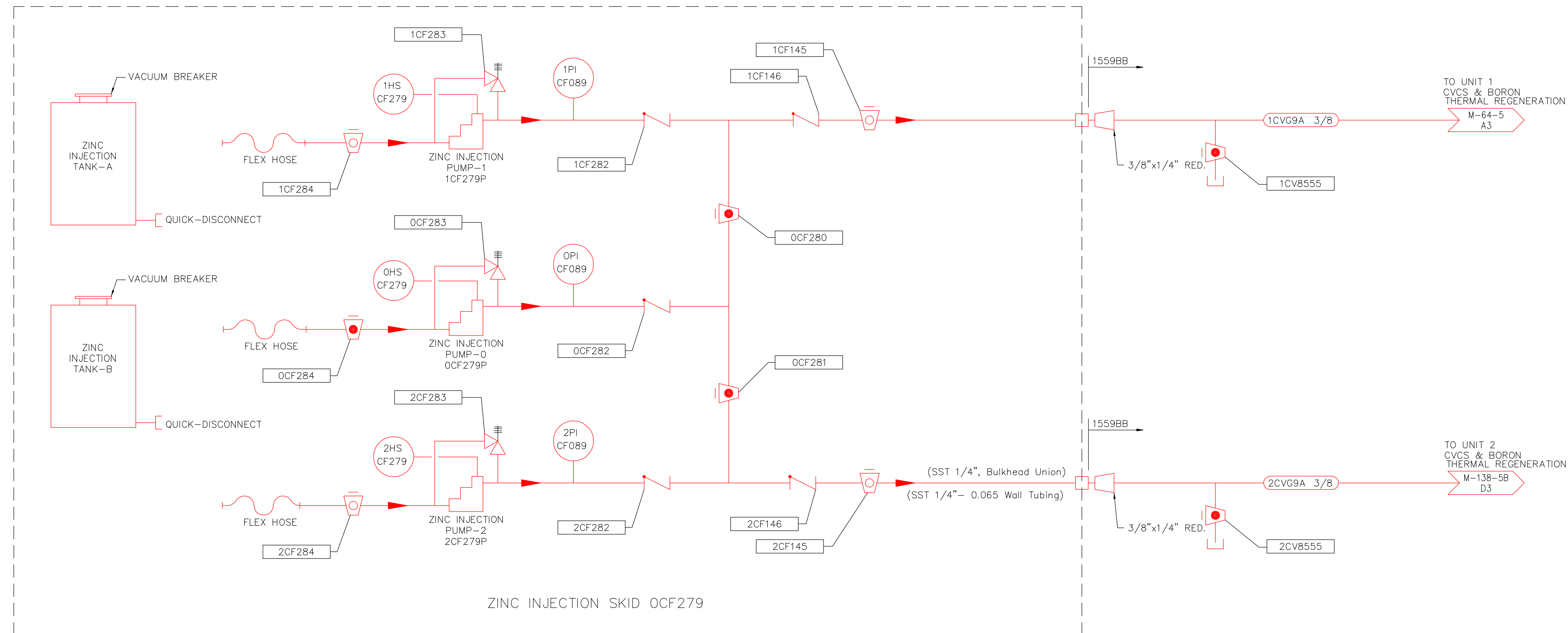


CORROSION MONITORING SKID  
OSX02S

- NOTES:
1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-152, SHEET 43, REVISION A.
  2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
SWS- SERVICE WATER SYSTEM

0	05 29 13	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
			J	J	R
			O	K	P
			D		
NO	DATE	DESCRIPTION	RVD	CKD	APD
REVISION					
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING NALCO CORROSION MONITORING SKID OSX02S UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-152		SHEET 43			0

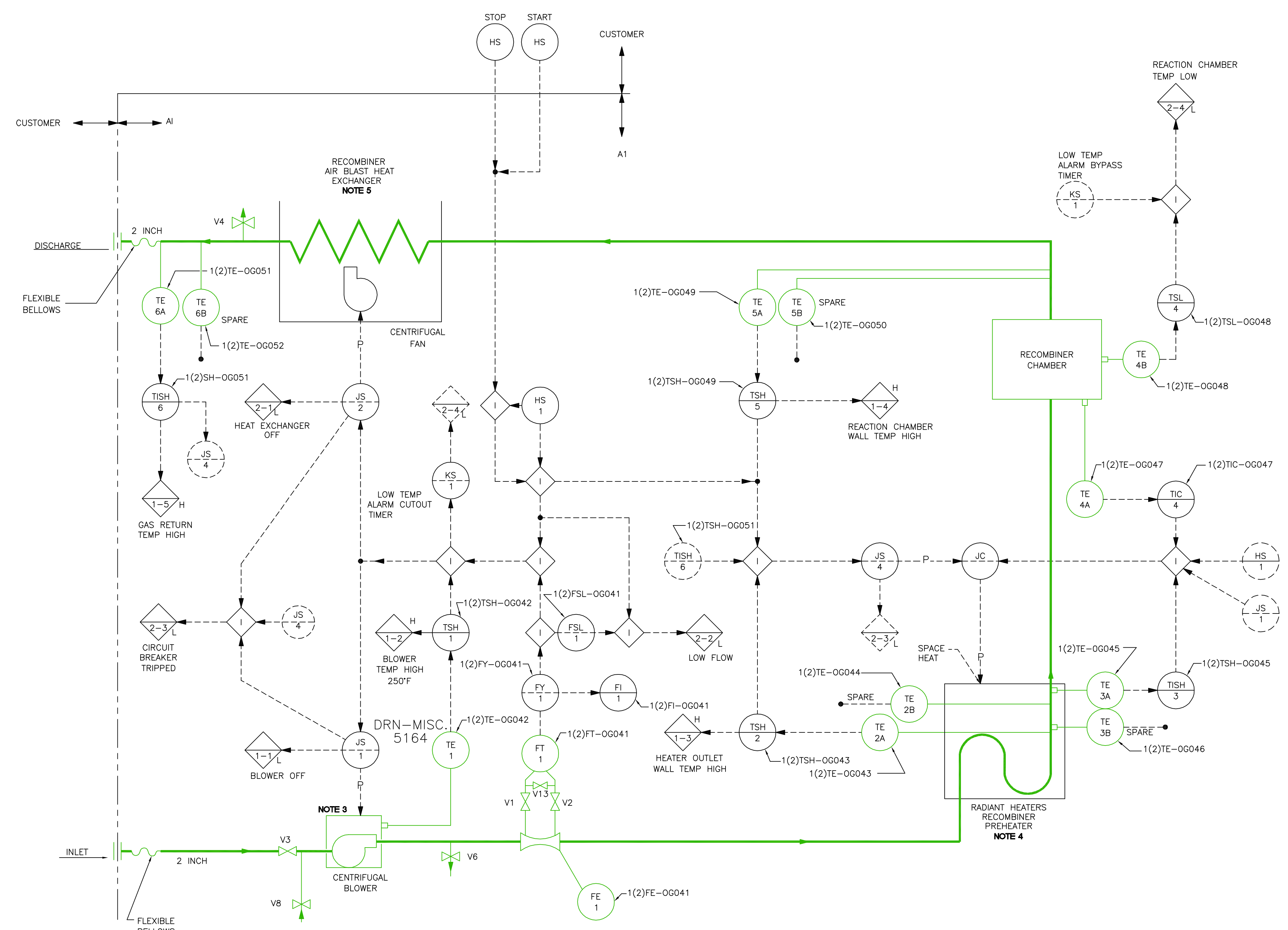




ZINC INJECTION SKID OCF279

- NOTES:**
- THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-152, SHEET 47, REVISION B.
  - THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
**CVC**- CHEMICAL & VOLUME CONTROL SYSTEM

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	P	J	A
29	13		J	K	R
			G		P
			D		
NO	DATE	DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING					
DIAGRAM OF ZINC INJECTION SKID					
UNITS 1 & 2					
BRAIDWOOD STATION 20					
EXELON NUCLEAR CORP.					
LR-BRW-M-152		SHEET 47		0	



NOTES:

1. THIS DRAWING IS BASED ON BRAIDWOOD STATION P&ID M-152, SHEET 6, REVISION E.
2. THIS DRAWING INCLUDES THE FOLLOWING LICENSE RENEWAL SYSTEM(S):  
CGC- COMBUSTIBLE GAS CONTROL
3. THE BLOWER UNIT AS SHOWN ON THIS DRAWING IS COMPRISED OF AN INNER BLOWER-MOTOR UNIT AND AN OUTER HOUSING. THE PURPOSE OF THE OUTER HOUSING IS TO PROVIDE A LEAK TIGHT PRESSURE BOUNDARY ENCLOSURE AROUND THE BLOWER-MOTOR ASSEMBLY TO ELIMINATE ANY POTENTIAL FOR A HYDROGEN GAS MIXTURE LEAK TO THE SURROUNDING ENVIRONMENT. BOTH THE INNER AND OUTER HOUSINGS WHICH PROVIDE A PRESSURE BOUNDARY FUNCTION, ARE WITHIN SCOPE OF LICENSE RENEWAL, AND ARE SUBJECT TO AGING MANAGEMENT REVIEW. THE CENTRIFUGAL BLOWER AND ASSOCIATED HOUSING ARE INCLUDED WITH THE COMPONENT TYPE FAN HOUSING FOR LICENSE RENEWAL AGING MANAGEMENT REVIEW.
4. THE RECOMBINER PREHEATER CONSISTS OF TUBING ROUTED THROUGH A RADIANT HEATER. THE RADIANT HEATER ELEMENT IS CONSIDERED ACTIVE AND NOT SUBJECT TO AGING MANAGEMENT REVIEW. THE TUBES ARE EVALUATED WITH THE COMBUSTIBLE GAS CONTROL SYSTEM.
5. THE RECOMBINER AIR BLAST HEAT EXCHANGER DOES NOT HAVE ANY SHELL SIDE COMPONENTS, TUBE SIDE COMPONENTS OR TUBE SHEETS. THE TUBES ARE EVALUATED WITH THE COMBUSTIBLE GAS CONTROL SYSTEM.

00G08SA,B

0	05	INITIAL ISSUE FOR LICENSE RENEWAL	A	C	A
29	13		J	A	R
			F	M	P
NO DATE		DESCRIPTION	RVD	CKD	APD
		REVISION			
MECHANICAL					
LICENSE RENEWAL BOUNDARY DRAWING MANUFACTURER'S SUPPLEMENTAL DIAGRAM OF HYDROGEN RECOMBINER UNITS 1 & 2					
BRAIDWOOD STATION 20 EXELON NUCLEAR CORP.					
LR-BRW-M-152		SHEET 6		0	





