



NOTES

1. DELETED
2. DELETED
3. DELETED
4. DELETED

5. FOR WINDING AND SUPPLY LINE SEE ONLY OTHER RELEVANT OPERATING OPERATIONS WORKED DRAWING NUMBER M-K2EF03
6. FOR PIPE CLASS CODE DEFINITION AND IDENTIFICATION SEE EOW WPPH ADDENDUM TO WINDING AND SUPPLY LINE WORKED DRAWING NUMBER M-K2EF03
7. ALL WINDING AND SUPPLY LINE WORK SHALL BE IDENTIFIED BY THE WINDING AND SUPPLY LINE WORKED DRAWING NUMBER M-K2EF03
8. THE TEMPERATURE INDICATOR IS PROVIDED FOR MONITORING DURING LOCAL OPERATIONS AND MONITORING IS REQUIRED TO DETERMINE THE FAULT TEMPERATURES DO NOT DROP BELOW 10°F (1.1°C) VALVE OPERATIONS SHOULD BE STOPPED IMMEDIATELY IF THE TEMPERATURE INDICATOR SHOWS A FAULT
9. MONITORING POINT IS WINDING CONTROL
10. MONITORING POINT IS WINDING CONTROL
11. MONITORING POINT IS WINDING CONTROL
12. TYPICAL DETAIL FOR ALL CANNON STEEL VENTS AND DRUMS ON CANNON STEEL PIPING
13. THE WINDING LINE AND SUPPLY LINE SHALL ACCESS VAULT 4
14. INSTRUMENTATION SHALL HAVE LOCAL INDICATION INSIDE OF THE VALVE OPERATOR COMPARTMENT
15. REMOVABLE SIGNAL REEDS INSTALLED FOR TEMPORARY PIPELINE INSPECTION LOCATING THE CORROSION AND INSULATION ARE SUPPORTED FOR THE REMOVABLE SIGNAL REEDS
16. INSTRUMENTATION SHALL HAVE LOCAL INDICATION INSIDE OF THE VALVE OPERATOR COMPARTMENT
17. INSTRUMENTATION SHALL HAVE LOCAL INDICATION INSIDE OF THE VALVE OPERATOR COMPARTMENT
18. INSTRUMENTATION SHALL HAVE LOCAL INDICATION INSIDE OF THE VALVE OPERATOR COMPARTMENT
19. INSTRUMENTATION SHALL HAVE LOCAL INDICATION INSIDE OF THE VALVE OPERATOR COMPARTMENT
20. INSTRUMENTATION SHALL HAVE LOCAL INDICATION INSIDE OF THE VALVE OPERATOR COMPARTMENT
21. INSTRUMENTATION SHALL HAVE LOCAL INDICATION INSIDE OF THE VALVE OPERATOR COMPARTMENT
22. INSTRUMENTATION SHALL HAVE LOCAL INDICATION INSIDE OF THE VALVE OPERATOR COMPARTMENT
23. VALVES HAVE A VENT SHALL BE REMOVED FOR TIGHTENING SERVICE
24. INSTRUMENTATION SHALL HAVE LOCAL INDICATION INSIDE OF THE VALVE OPERATOR COMPARTMENT
25. INSTRUMENTATION SHALL HAVE LOCAL INDICATION INSIDE OF THE VALVE OPERATOR COMPARTMENT
26. INSTRUMENTATION SHALL HAVE LOCAL INDICATION INSIDE OF THE VALVE OPERATOR COMPARTMENT
27. DELETED
28. DELETED

USAR FIG. 9.2-2 -4

ESSENTIAL DRAWING

REVISION	DESCRIPTION	DATE	BY	APP'D
1	ISSUED	12-27-2017	WOLF CREEK	WOLF CREEK
2	REVISED	12-27-2017	WOLF CREEK	WOLF CREEK



WOLF CREEK
PIPING & INSTRUMENTATION
DIAGRAM ESSENTIAL
SERVICE WATER SYSTEM

NAME M-K2EF03

DATE 12-27-2017

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

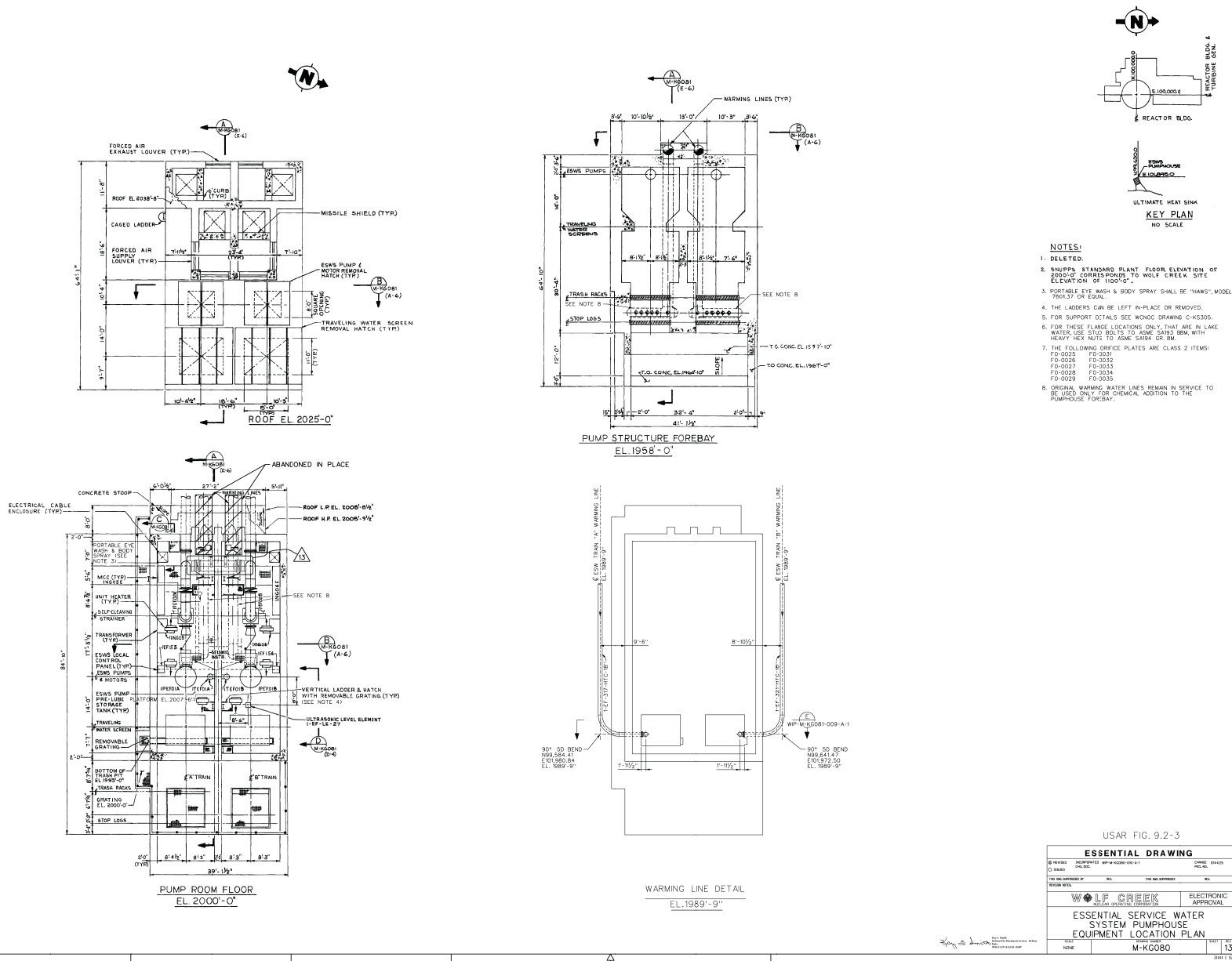
FIGURE 9.2-2 -4

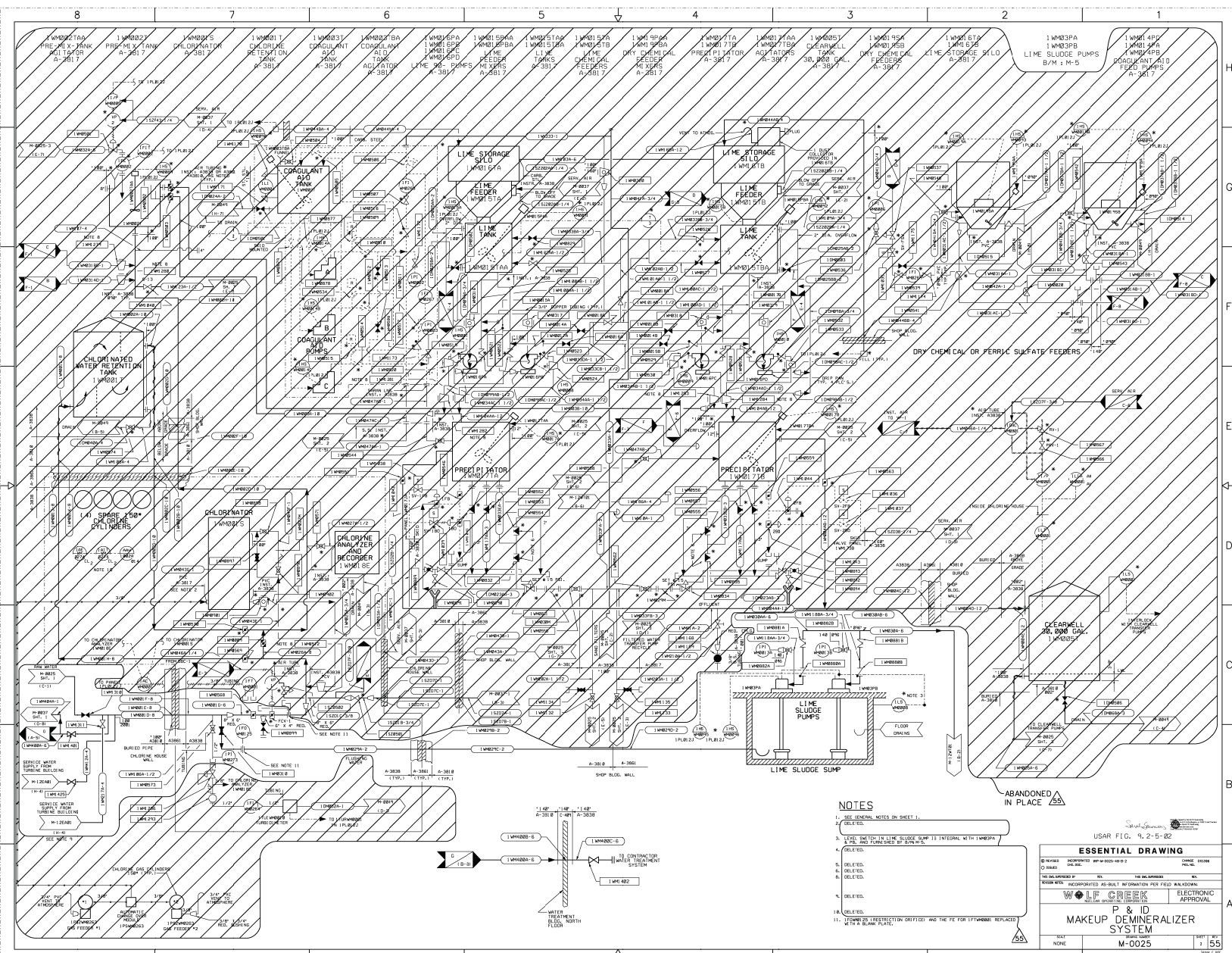
FIGURE 9.2-2 -4

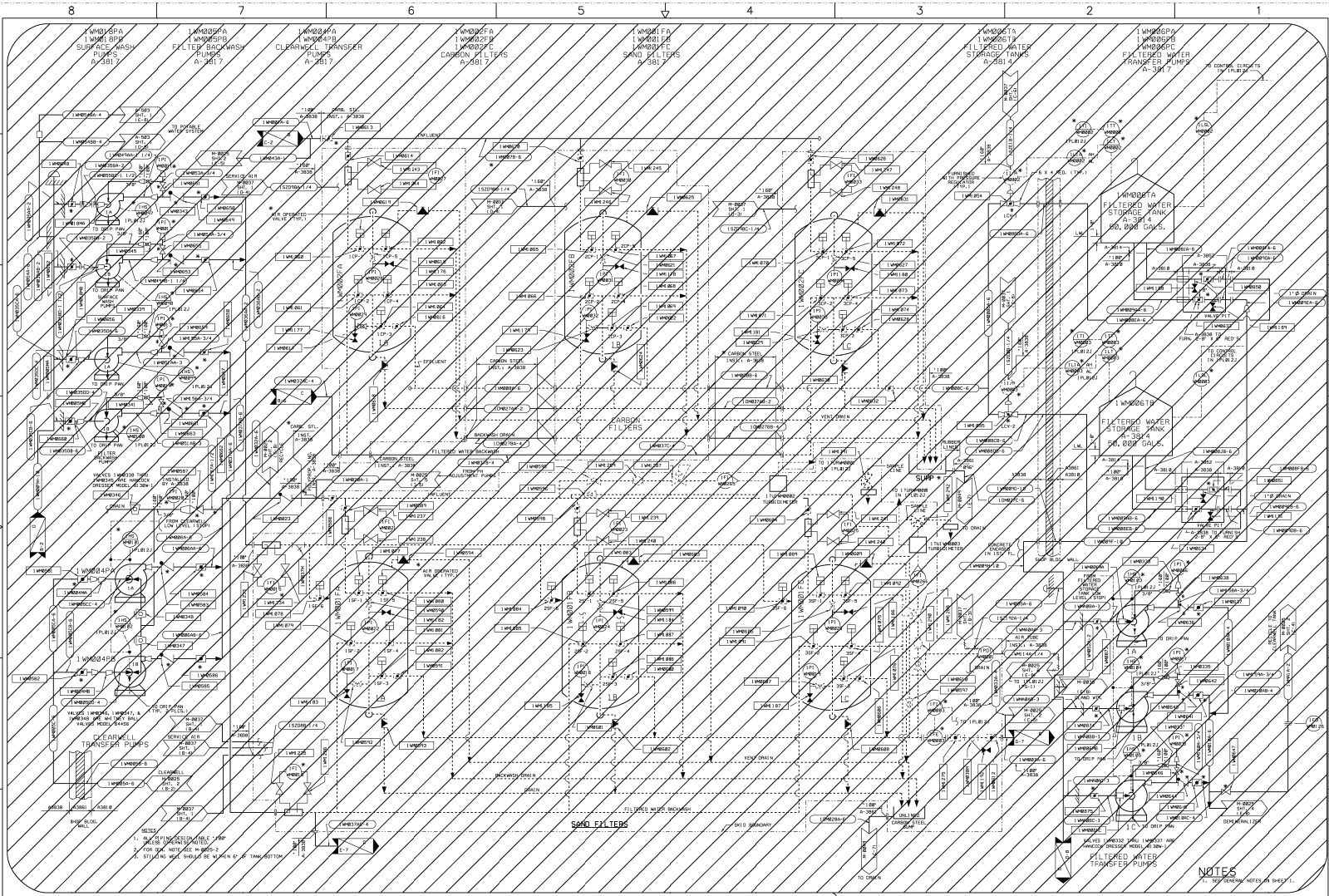
FIGURE 9.2-2 -4

FIGURE 9.2-2 -4

8 7 6 5 4 3 2 1







USAR FIG. 4.2-5-83

ESSENTIAL DRAWING

NO.	REVISION	DESCRIPTION	DATE	BY	CHK.	APP.
1	1	ISSUED	10/10/83	WOLF CREEK		

WOLF CREEK
NUCLEAR PROJECT

MAKEUP DEMINERALIZER SYSTEM
M-0025

DATE: 10/10/83
BY: WOLF CREEK
CHK: [Signature]
APP: [Signature]

30

NOTES

1. ALL DIMENSIONS ARE IN FEET AND INCHES.

2. FOR G&C, NOTE: SEE M-0025-2.

3. STUDYING AND REVISIONS ARE REQUIRED BY THE TANK BOTTOM.

ABANDONED IN PLACE

TO TANK

8

7

6


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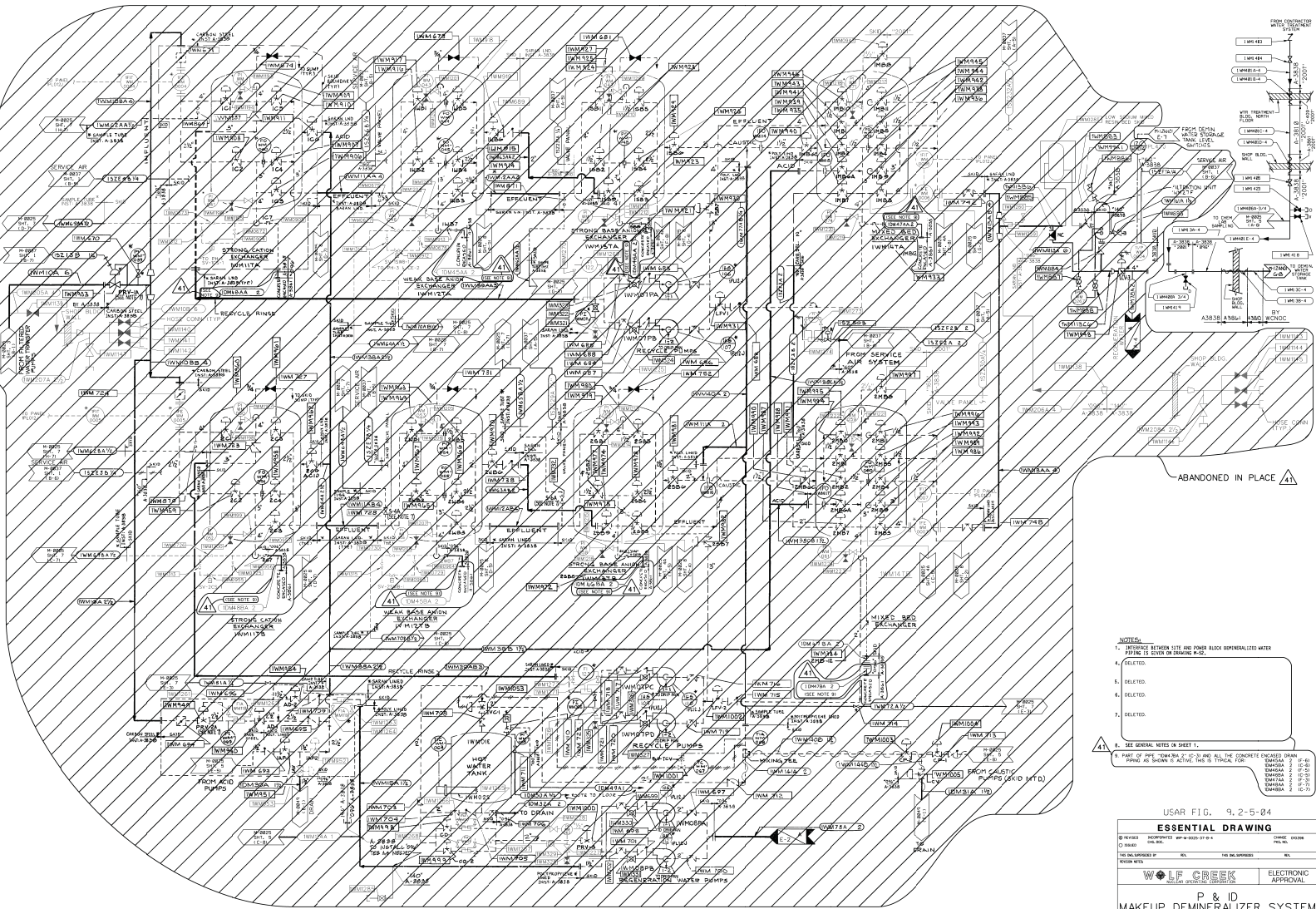
4

3

2

1

 ABANDONED IN PLACE

 ABANDONED IN PLACE


USAR FIG. 9.2-5-04

ESSENTIAL DRAWING

NO.	REVISION	DATE	BY	CHKD.	DATE	BY	CHKD.
1	ISSUED	10/10/00	WOLF CREEK		10/10/00	WOLF CREEK	
2	REVISION	10/10/00	WOLF CREEK		10/10/00	WOLF CREEK	
3	REVISION	10/10/00	WOLF CREEK		10/10/00	WOLF CREEK	
4	REVISION	10/10/00	WOLF CREEK		10/10/00	WOLF CREEK	
5	REVISION	10/10/00	WOLF CREEK		10/10/00	WOLF CREEK	
6	REVISION	10/10/00	WOLF CREEK		10/10/00	WOLF CREEK	
7	REVISION	10/10/00	WOLF CREEK		10/10/00	WOLF CREEK	
8	REVISION	10/10/00	WOLF CREEK		10/10/00	WOLF CREEK	
9	REVISION	10/10/00	WOLF CREEK		10/10/00	WOLF CREEK	
10	REVISION	10/10/00	WOLF CREEK		10/10/00	WOLF CREEK	

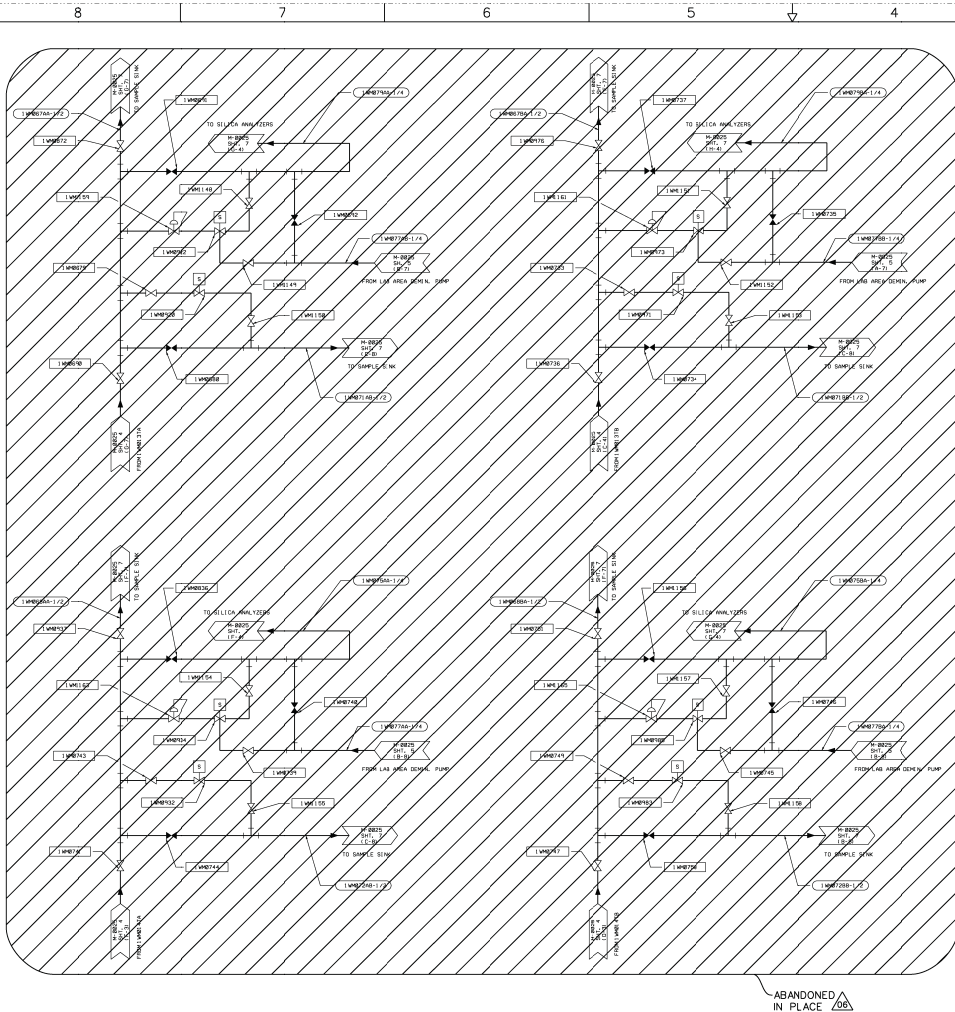
WOLF CREEK

P & ID

MAKEUP DEMINERALIZER SYSTEM

M-0025

41

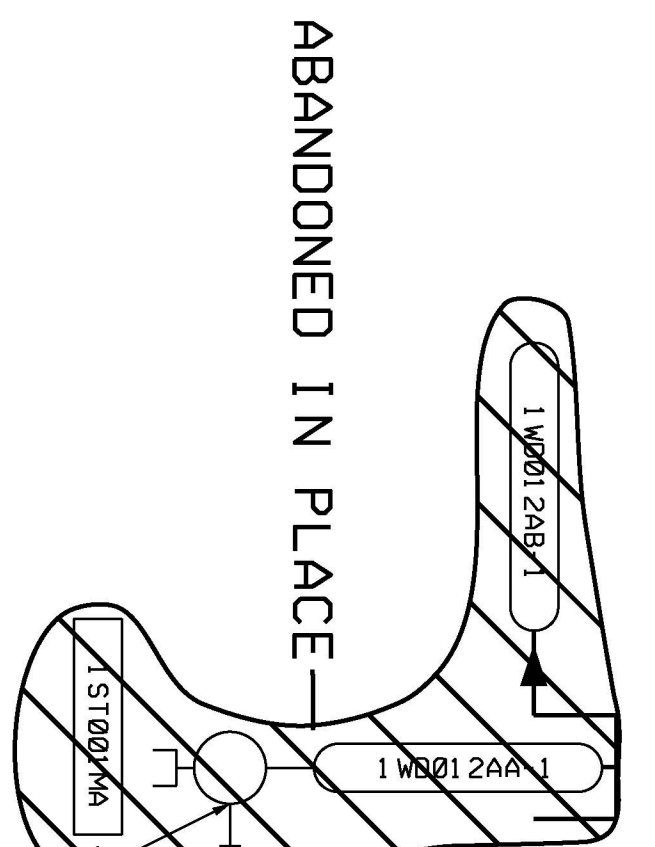


USAR FIG. 9.2-5-4A

ESSENTIAL DRAWING			
<input type="checkbox"/> REVISION <input type="checkbox"/> SUBMITTAL	UNIFORMED CHS. BOLD	WPM-M-0025-04-A-0A CHS. BOLD	CHANGE NO. 0008 PCL. NO.
THIS DOCUMENT IS BY		THIS DOCUMENT IS BY	
REVISION NO.		REVISION NO.	
WOLF CREEK WOLF CREEK OPERATING CORPORATION		ELECTRONIC APPROVAL	
P & ID MAKEUP DEMINERALIZER SYSTEM			
SHEET NONE	DRAWING NUMBER M-0025		SHEET NO. 06

The schematic diagram illustrates the input circuitry for the 80C37A-2. It features a central horizontal bus line. On the left, a component labeled 'A-831' is connected to the bus. Below the bus, there are two vertical labels: 'A-381 OC' and '1K033A'. To the right of the bus, a component labeled '8BC1' is connected via a diagonal line. Further right, another component labeled '1K033A-Z' is connected to the bus. At the far right, a dashed rectangular box contains the 80C37A-2 chip. The chip's pins are labeled as follows: 'CURRENT FACILITY' at the top, 'ELECTROSTATIC PROTECTION' below it, 'COUNT' on the left side, 'SEE DNL.' on the right side, and 'M-17 K0301' at the bottom.

CHEMICAL STORAGE
BUILDING AREA

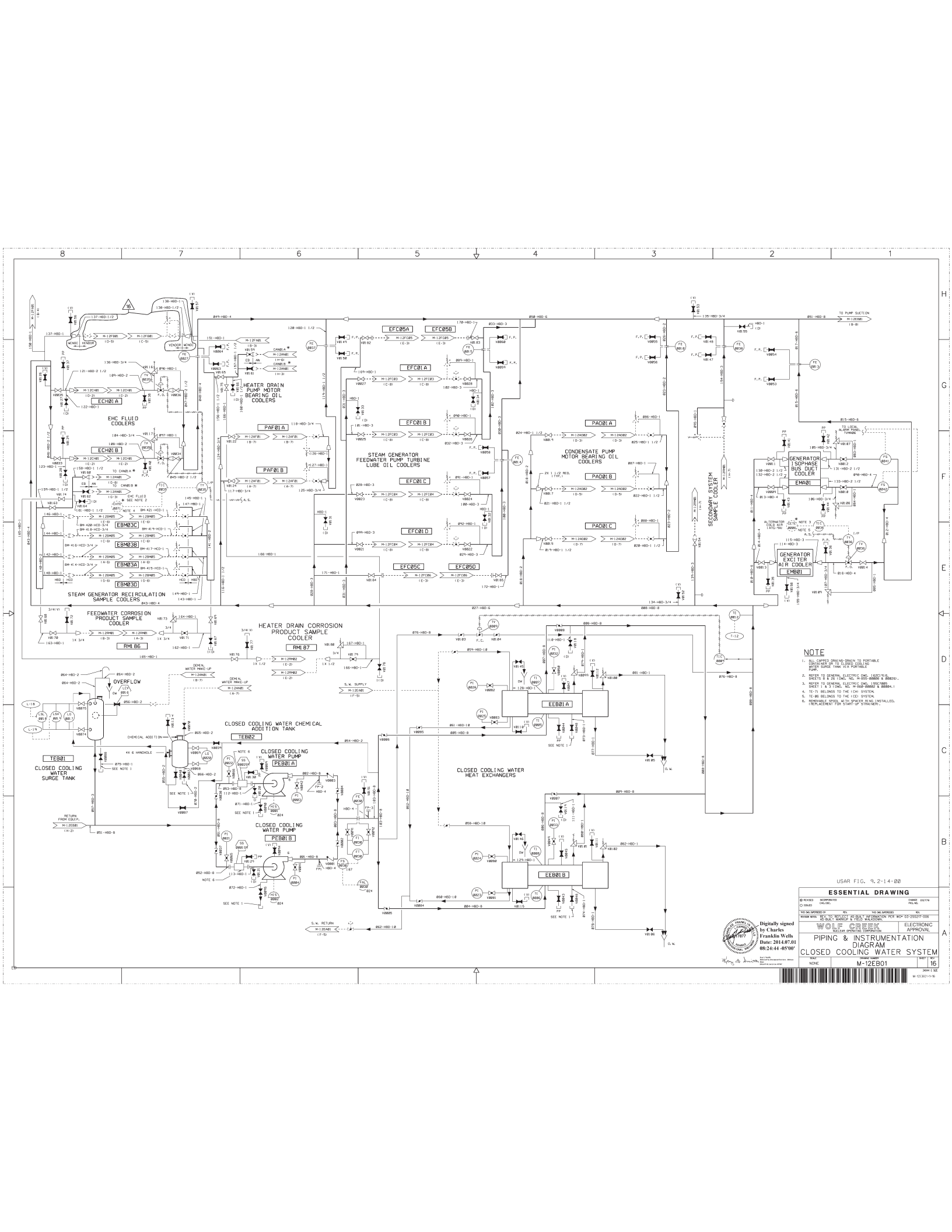


—ABANDONED IN PLACE

- | REFERENCE DRAWINGS | |
|--------------------|---|
| A-501 | SANITARY SINKER AND POTABLE WATER SYSTEMS SHEET 1 |
| A-502 | SANITARY SINKER AND POTABLE WATER SYSTEMS SHEET 2 |
| A-509 | SANITARY SINKER AND POTABLE WATER SYSTEMS SHEET 3 |
| A-527 | PLUMBING SECOND FLOOR PLAN |
| A-532 | PLUMBING SECOND FLOOR PLAN |
| A-548 | PLUMBING GROUND & SECOND FLOOR SUPPLY DIAPHRAGMS |
| A-0893
Sht. 2 | PIPING & INSTRUMENTATION DIAGRAM |

USAR FIG. 9.2-5A-00

 WOLF CREEK NUCLEAR OPERATING CORPORATION	ELECTRIC APPROPRIATION
POTABLE WATER SYSTEM	



NOTE

1. ALL CORROSION DRAIN TO PORTABLE CONTAINER. DO NOT DRINK. DO NOT REUSE. DO NOT REUSE. DO NOT REUSE.
2. REFER TO GENERAL ELECTRIC SPECIFICATION SHEET FOR THE SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM.
3. REFER TO SYSTEM SPECIFICATION SHEET FOR THE SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM.
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5. REFER TO SYSTEM SPECIFICATION SHEET FOR THE SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM.
6. REFER TO SYSTEM SPECIFICATION SHEET FOR THE SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM. THE SYSTEM IS A CLOSED LOOP SYSTEM.

USAR FIG. 9.2-1.4-00

ESSENTIAL DRAWING

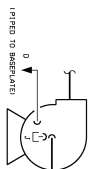
DESIGNED	INTEGRATED	CHANGED	DATE
DATE	DATE	DATE	DATE

WOLF CREEK
PIPING & INSTRUMENTATION
DIAGRAM
CLOSED COOLING WATER SYSTEM
M-12E801

Digitally signed by Charles Franklin Wells
Date: 2014.07.01 08:24:44 -0500

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(SEE NOTE 2)



CONA	PLANT	WATER NO.	LIVE NO.	REPORT
A	W201	275-0BC-1	275-0BC-1	BRISTLE ARI DRAIN
B	W202	275-0BC-2	275-0BC-2	BRISTLE ARI DRAIN
C	W203	275-0BC-3	275-0BC-3	BRISTLE ARI DRAIN
D	W204	275-0BC-4	275-0BC-4	BRISTLE ARI DRAIN
E	W205	275-0BC-5	275-0BC-5	BRISTLE ARI DRAIN
F	W206	275-0BC-6	275-0BC-6	BRISTLE ARI DRAIN
G	W207	275-0BC-7	275-0BC-7	BRISTLE ARI DRAIN
H	W208	275-0BC-8	275-0BC-8	BRISTLE ARI DRAIN
I	W209	275-0BC-9	275-0BC-9	BRISTLE ARI DRAIN
J	W210	275-0BC-10	275-0BC-10	BRISTLE ARI DRAIN
K	W211	275-0BC-11	275-0BC-11	BRISTLE ARI DRAIN
L	W212	275-0BC-12	275-0BC-12	BRISTLE ARI DRAIN
M	W213	275-0BC-13	275-0BC-13	BRISTLE ARI DRAIN
N	W214	275-0BC-14	275-0BC-14	BRISTLE ARI DRAIN
O	W215	275-0BC-15	275-0BC-15	BRISTLE ARI DRAIN
P	W216	275-0BC-16	275-0BC-16	BRISTLE ARI DRAIN
Q	W217	275-0BC-17	275-0BC-17	BRISTLE ARI DRAIN
R	W218	275-0BC-18	275-0BC-18	BRISTLE ARI DRAIN
S	W219	275-0BC-19	275-0BC-19	BRISTLE ARI DRAIN
T	W220	275-0BC-20	275-0BC-20	BRISTLE ARI DRAIN
U	W221	275-0BC-21	275-0BC-21	BRISTLE ARI DRAIN
V	W222	275-0BC-22	275-0BC-22	BRISTLE ARI DRAIN
W	W223	275-0BC-23	275-0BC-23	BRISTLE ARI DRAIN
X	W224	275-0BC-24	275-0BC-24	BRISTLE ARI DRAIN
Y	W225	275-0BC-25	275-0BC-25	BRISTLE ARI DRAIN
Z	W226	275-0BC-26	275-0BC-26	BRISTLE ARI DRAIN
AA	W227	275-0BC-27	275-0BC-27	BRISTLE ARI DRAIN
AB	W228	275-0BC-28	275-0BC-28	BRISTLE ARI DRAIN
AC	W229	275-0BC-29	275-0BC-29	BRISTLE ARI DRAIN
AD	W230	275-0BC-30	275-0BC-30	BRISTLE ARI DRAIN
AE	W231	275-0BC-31	275-0BC-31	BRISTLE ARI DRAIN
AF	W232	275-0BC-32	275-0BC-32	BRISTLE ARI DRAIN
AG	W233	275-0BC-33	275-0BC-33	BRISTLE ARI DRAIN
AH	W234	275-0BC-34	275-0BC-34	BRISTLE ARI DRAIN
AI	W235	275-0BC-35	275-0BC-35	BRISTLE ARI DRAIN
AJ	W236	275-0BC-36	275-0BC-36	BRISTLE ARI DRAIN
AK	W237	275-0BC-37	275-0BC-37	BRISTLE ARI DRAIN
AL	W238	275-0BC-38	275-0BC-38	BRISTLE ARI DRAIN
AM	W239	275-0BC-39	275-0BC-39	BRISTLE ARI DRAIN
AN	W240	275-0BC-40	275-0BC-40	BRISTLE ARI DRAIN
AO	W241	275-0BC-41	275-0BC-41	BRISTLE ARI DRAIN
AP	W242	275-0BC-42	275-0BC-42	BRISTLE ARI DRAIN
AQ	W243	275-0BC-43	275-0BC-43	BRISTLE ARI DRAIN
AR	W244	275-0BC-44	275-0BC-44	BRISTLE ARI DRAIN
AS	W245	275-0BC-45	275-0BC-45	BRISTLE ARI DRAIN
AT	W246	275-0BC-46	275-0BC-46	BRISTLE ARI DRAIN
AU	W247	275-0BC-47	275-0BC-47	BRISTLE ARI DRAIN
AV	W248	275-0BC-48	275-0BC-48	BRISTLE ARI DRAIN
AW	W249	275-0BC-49	275-0BC-49	BRISTLE ARI DRAIN
AX	W250	275-0BC-50	275-0BC-50	BRISTLE ARI DRAIN
AY	W251	275-0BC-51	275-0BC-51	BRISTLE ARI DRAIN
AZ	W252	275-0BC-52	275-0BC-52	BRISTLE ARI DRAIN
BA	W253	275-0BC-53	275-0BC-53	BRISTLE ARI DRAIN
BB	W254	275-0BC-54	275-0BC-54	BRISTLE ARI DRAIN
BC	W255	275-0BC-55	275-0BC-55	BRISTLE ARI DRAIN
BD	W256	275-0BC-56	275-0BC-56	BRISTLE ARI DRAIN
BE	W257	275-0BC-57	275-0BC-57	BRISTLE ARI DRAIN
BF	W258	275-0BC-58	275-0BC-58	BRISTLE ARI DRAIN
BG	W259	275-0BC-59	275-0BC-59	BRISTLE ARI DRAIN
BH	W260	275-0BC-60	275-0BC-60	BRISTLE ARI DRAIN
BI	W261	275-0BC-61	275-0BC-61	BRISTLE ARI DRAIN
BJ	W262	275-0BC-62	275-0BC-62	BRISTLE ARI DRAIN
BK	W263	275-0BC-63	275-0BC-63	BRISTLE ARI DRAIN
BL	W264	275-0BC-64	275-0BC-64	BRISTLE ARI DRAIN
BM	W265	275-0BC-65	275-0BC-65	BRISTLE ARI DRAIN
BN	W266	275-0BC-66	275-0BC-66	BRISTLE ARI DRAIN
BO	W267	275-0BC-67	275-0BC-67	BRISTLE ARI

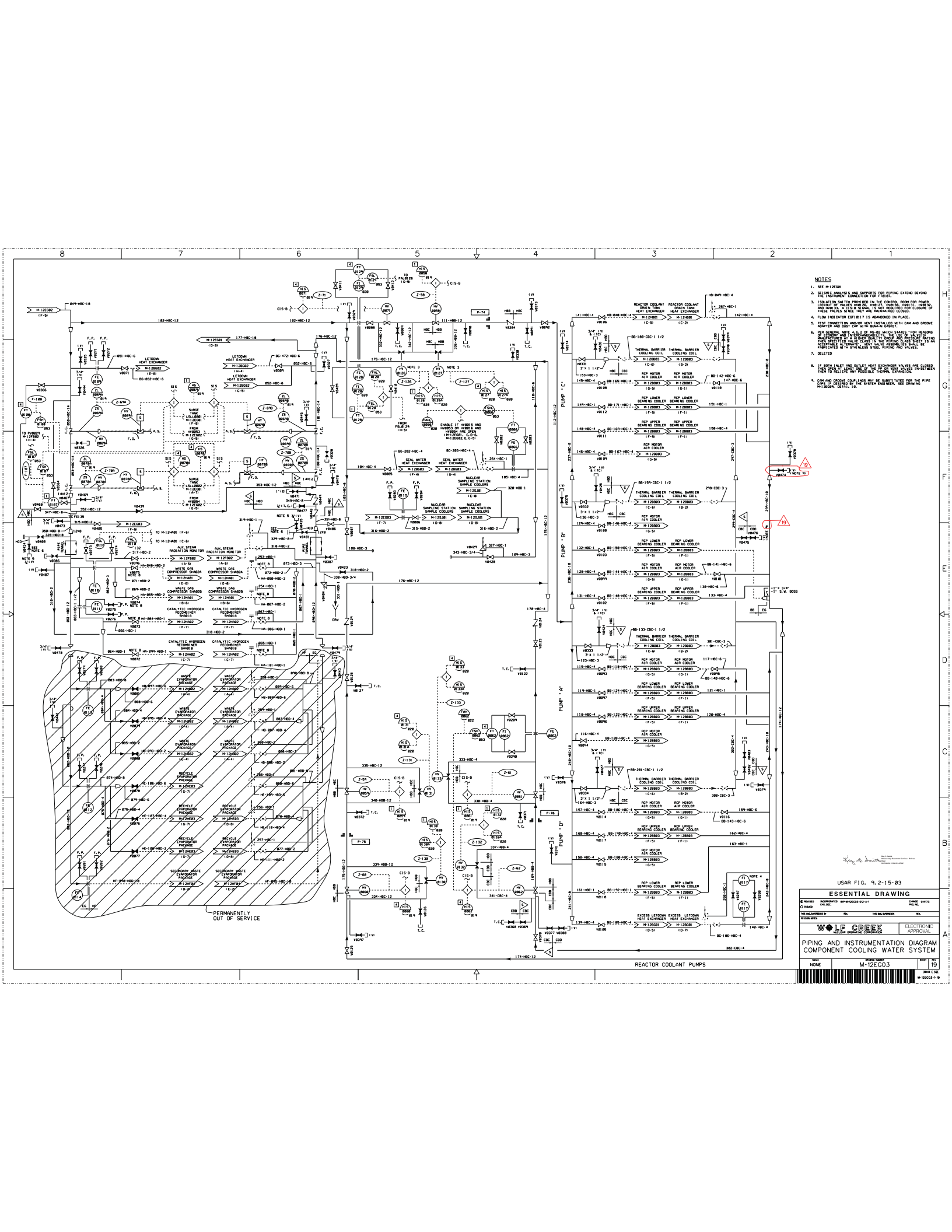
1. ALL CAPPED DRAINS: DRAIN TO PORTABLE CONTAINER OR TO THE COMPONENT COOLING WATER SURGE

- [illegible]

DC24 11/03/2015

ESSENTIAL DRAWING

[illegible]



NOTES

1. SEE M-12001
2. SEE ANALYSIS AND SUPPORT FOR PIPING EXTENDING BEYOND THE INSTRUMENTED SECTION FOR PIPING.
3. ISOLATION VALVE PROVIDED IN THE CONTROL ROOM FOR PIPING. ISOLATION VALVE PROVIDED IN THE CONTROL ROOM FOR PIPING. ISOLATION VALVE PROVIDED IN THE CONTROL ROOM FOR PIPING. ISOLATION VALVE PROVIDED IN THE CONTROL ROOM FOR PIPING.
4. FLOW INDICATOR COUPLER IS SHOWN IN PLACE.
5. TEST CONNECTION VALVE IS INSTALLED IN THE CAN AND GROOVE.
6. NEW GENERAL NOTE: A & B OF M-12003, FOR REASONS OF SAFETY AND PERFORMANCE, THE USE OF THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET. THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET. THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET. THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET.
7. DETAILS
8. IN RETAILING AND QUALITY HEAT EXCHANGER ANALYSIS, THE USE OF THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET. THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET. THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET. THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET.
9. CAN AND GROOVE COUPLERS ARE SUBSTITUTED FOR THE PIPE LINE. IN RETAILING AND QUALITY HEAT EXCHANGER ANALYSIS, THE USE OF THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET. THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET. THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET. THE PIPE LINE IS LIMITED TO A MAXIMUM OF 100 FEET.

USAR FIG. 9.2-15-03

ESSENTIAL DRAWING

REVISIONS

DATE

BY

CHKD

APP'D

WOLF CREEK ELECTRONIC APPROVAL

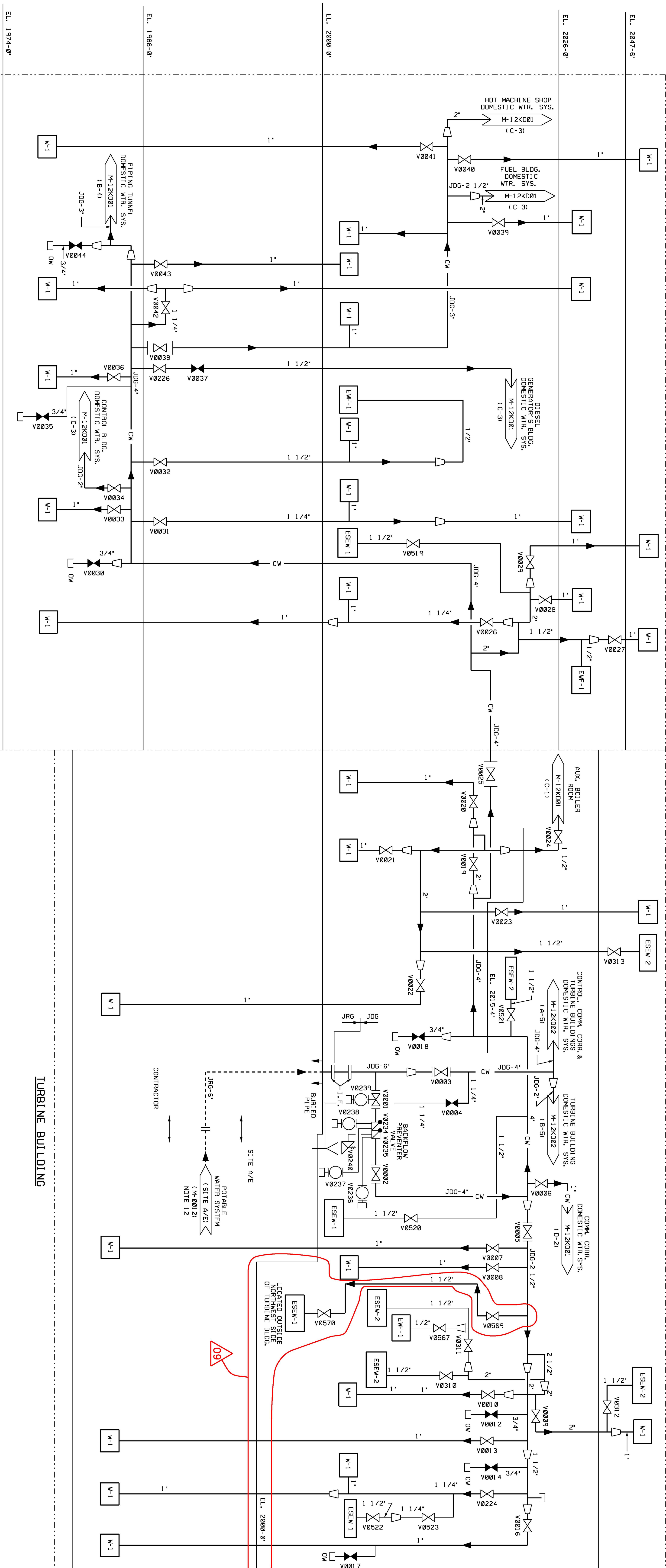
PIPING AND INSTRUMENTATION DIAGRAM

COMPONENT COOLING WATER SYSTEM

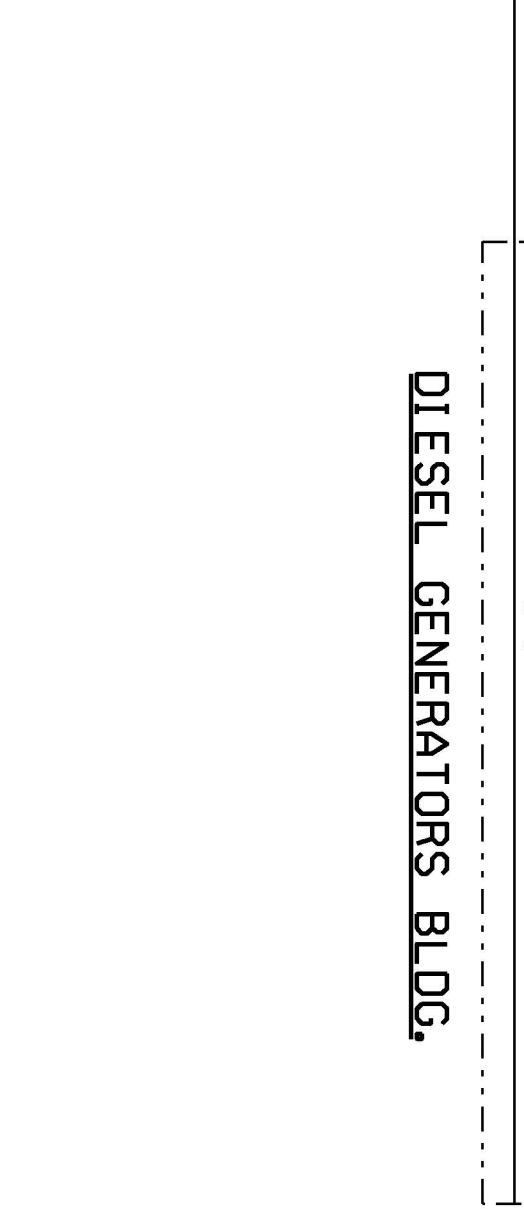
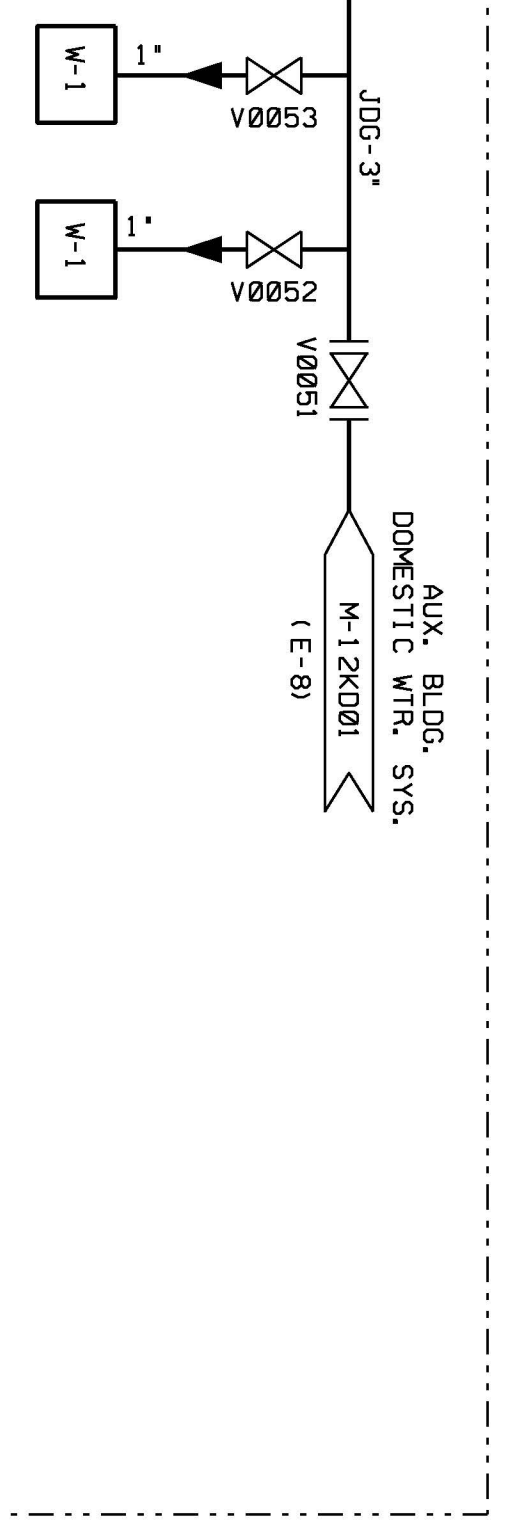
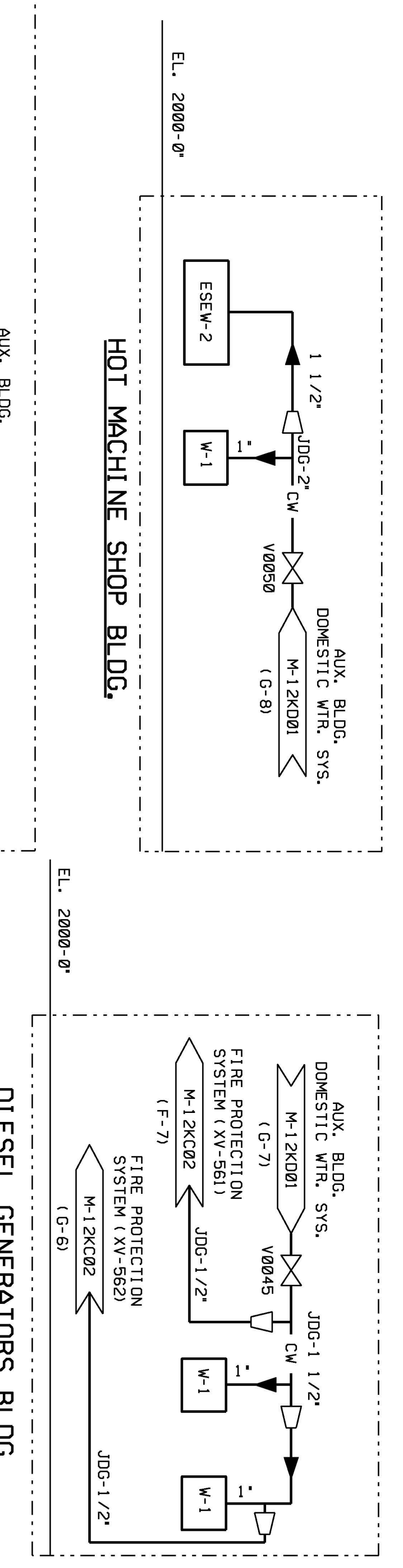
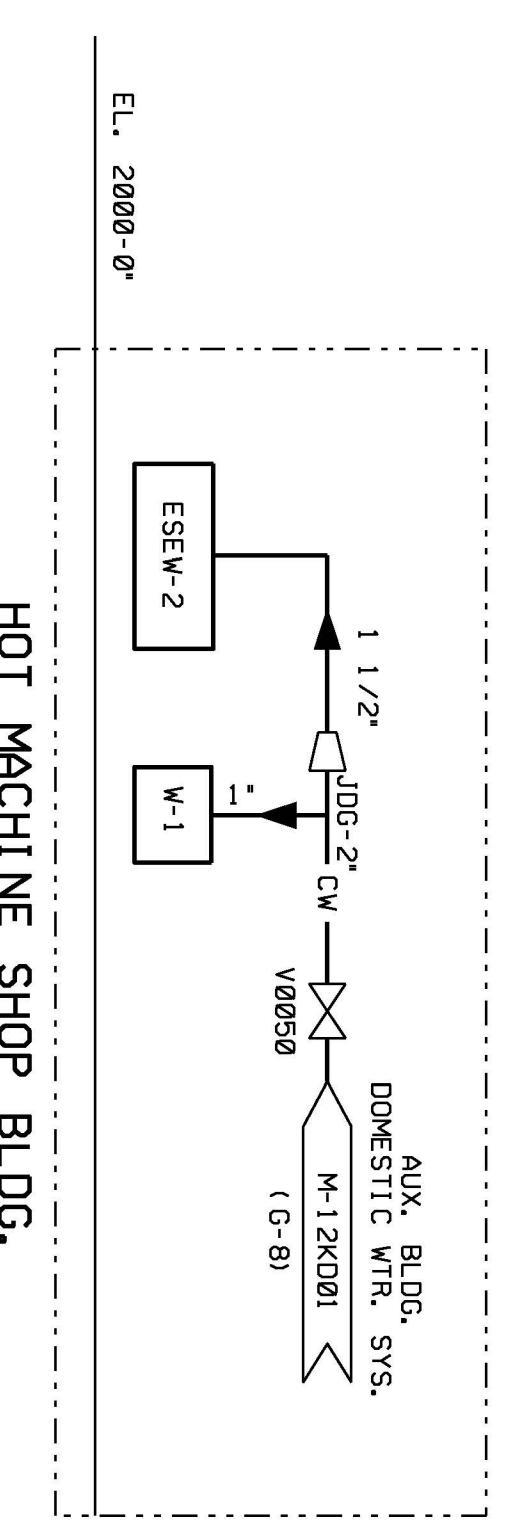
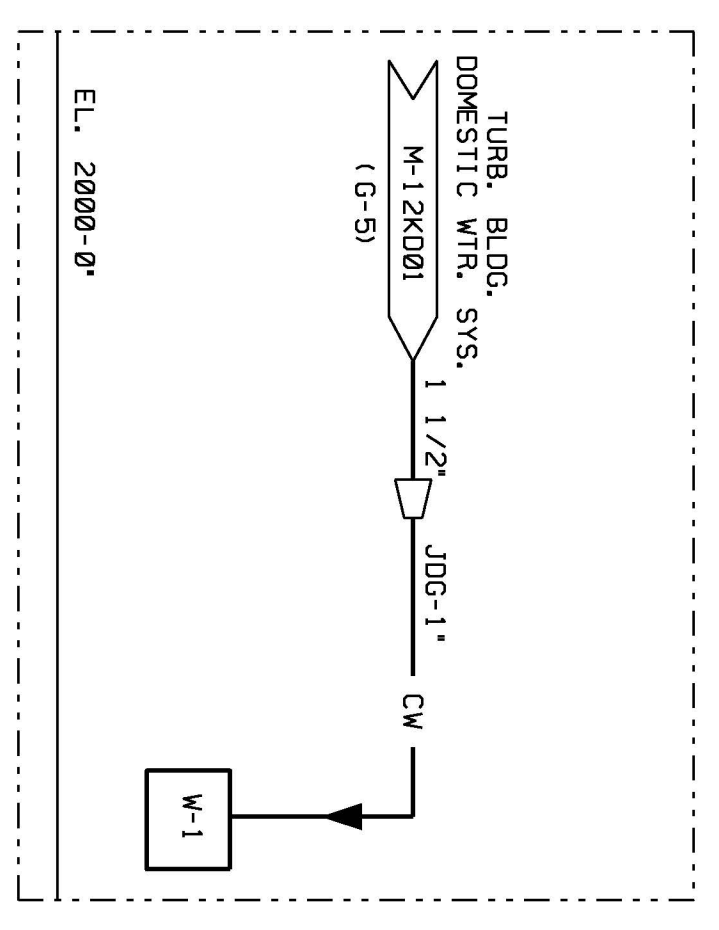
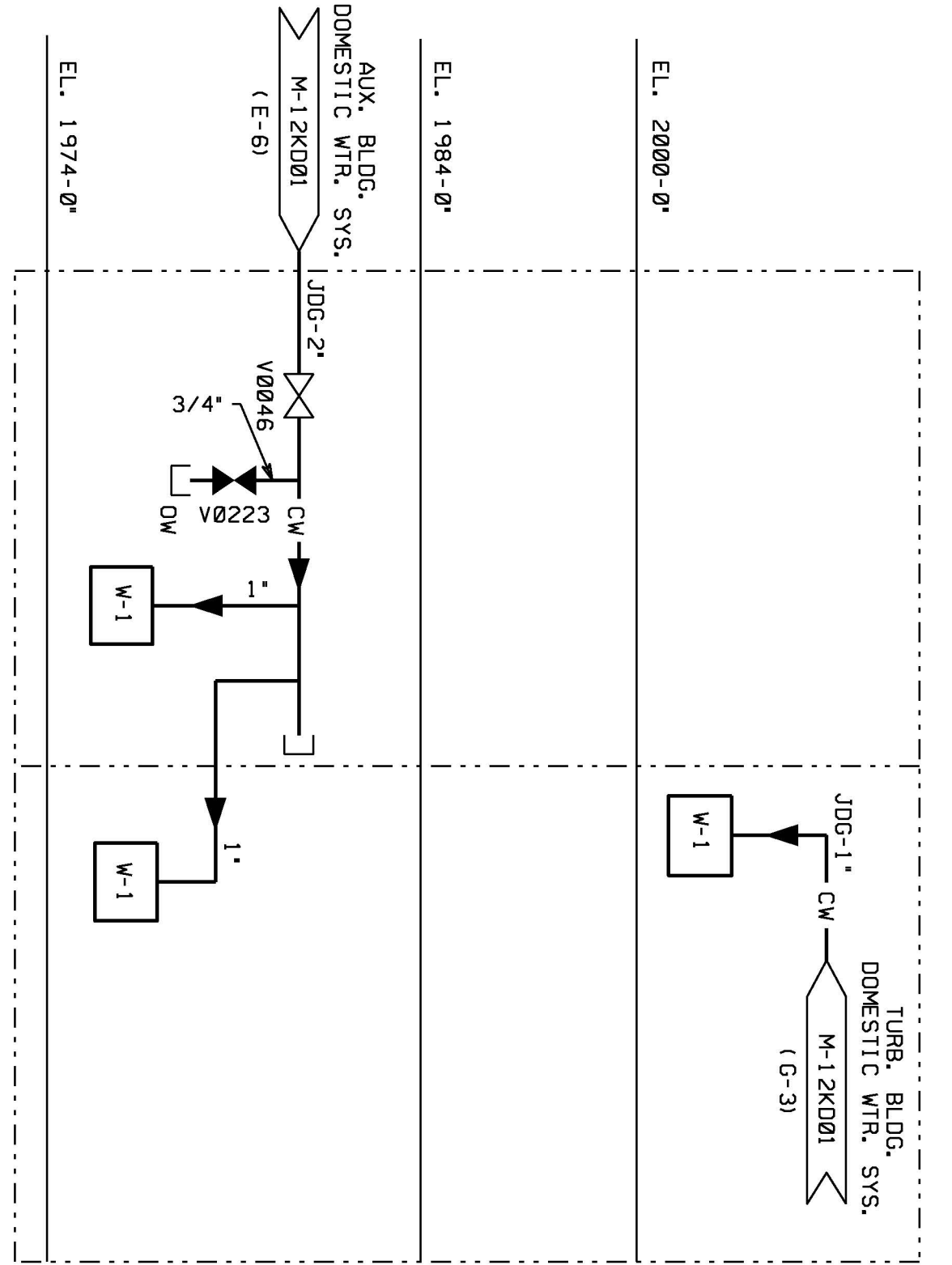
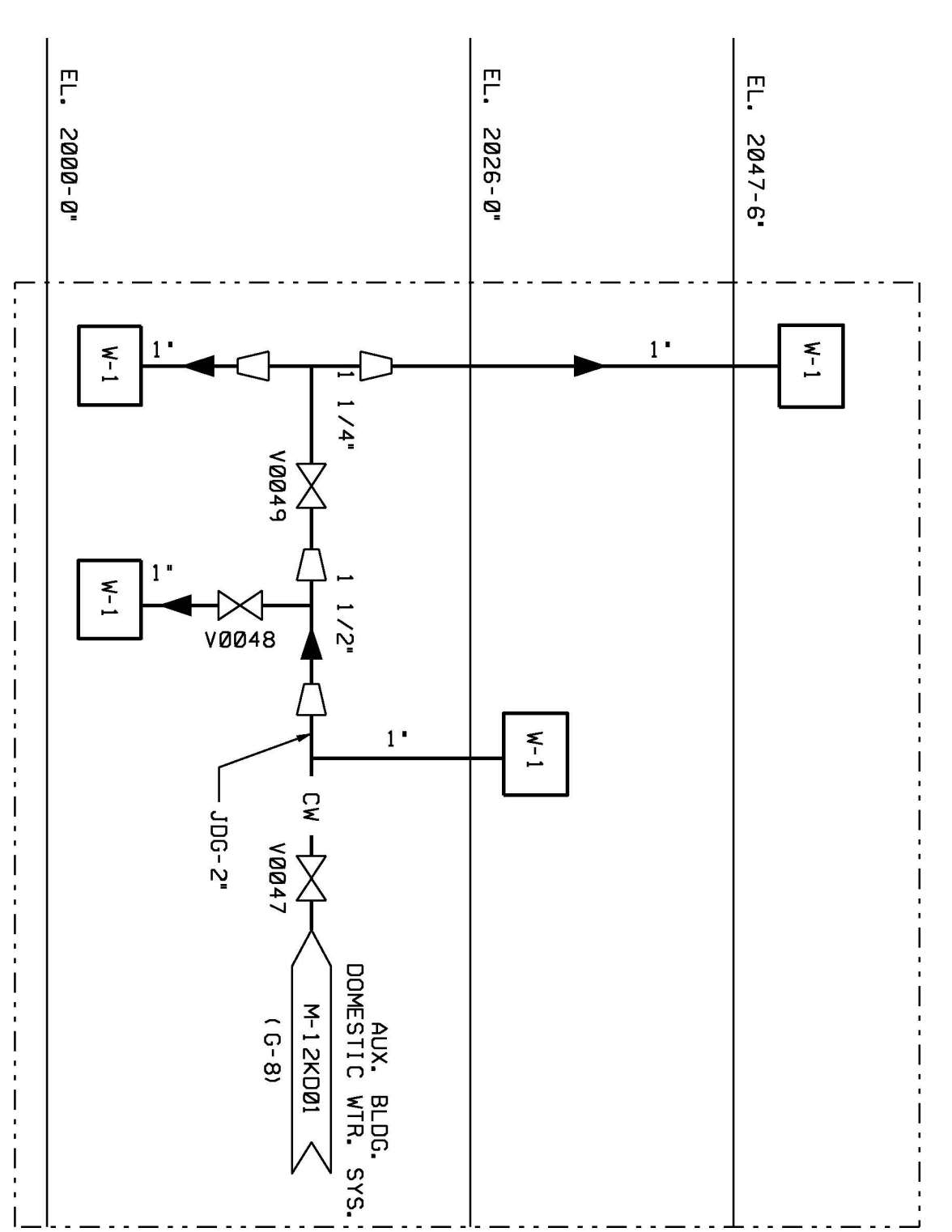
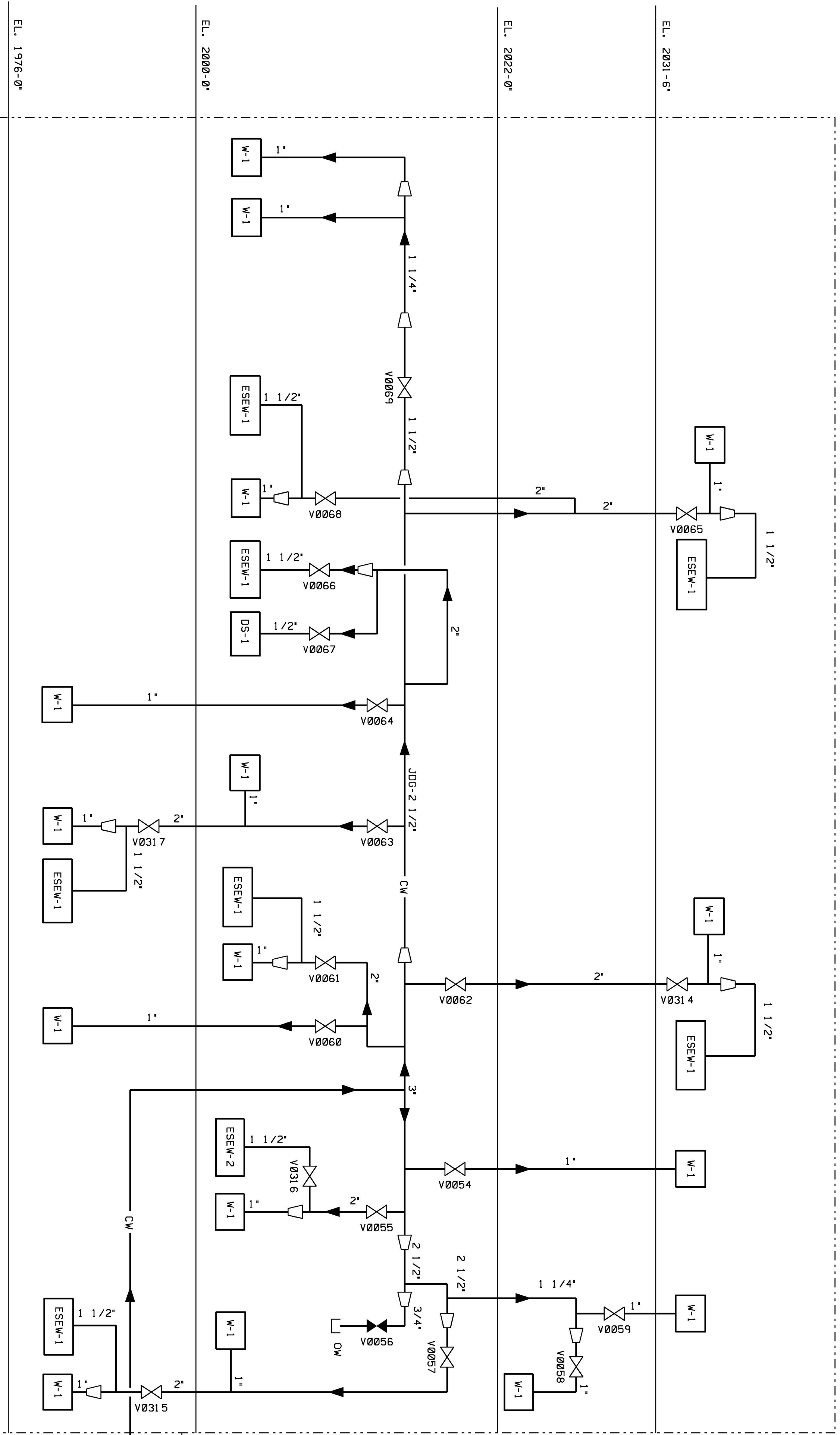
REACTOR COOLANT PUMPS

M-12003

19-11-1983



- # NOTES
1. PIPING, VALVES AND OTHER COMPONENTS ARE INDICATED BY THE DOMESTIC WATER SYSTEM. THEY SHALL BE PLANNED IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE AND THE APPLICABLE STATE AND/OR LOCAL CODE.
 2. FOR GENERAL NOTES, SYMBOLS, SCHEDULES AND DIMENSIONS, SEE DWG. S-11-17-80 AND M-11-17-82.
 3. FOR DOMESTIC WATER SYSTEM PIPING, VALVES, AND NOZZLES, MATERIAL, SEE SPEC. NO. M-2, AND NO. 11-182.
 4. FOR PLUMBING FIXTURES, SEE SPEC. NO. A-228, AND NO. A-1182.
 5. SHOWER, SINK, AND TUB ARE INDICATED BY THE DOMESTIC WATER SYSTEM. THEY SHALL BE PLANNED IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE AND THE APPLICABLE STATE AND/OR LOCAL CODE.
 6. DOMESTIC WATER FIXTURES SHALL BE SUPPLIED WITH SHOWERHEADS, INDICATED BY M-11-20-82.
 7. SEE DWG. M-11-20-80 FOR ADDITIONAL K-11 DETAILS.
 8. SHOCK ABSORBERS AND PRESSURE REGULATING VALVES SHALL BE INSTALLED AS SHOWN ON DWGS. M-11-20-80.
 9. SHOWERS TO BE USED FOR OTHER THAN EMERGENCY PURPOSES SHALL BE EQUIPPED WITH A FLOW CONTROL VALVE TO BE USED TO ADJUST THE WATER TEMPERATURE TO A MAXIMUM OF 3 GRAIN. IN THE SHOWERHEAD TO A MAXIMUM OF 1 GRAIN. IN THE CODE MAY, 1978, THE MAXIMUM ADOPTED IN THE
 10. DELETE
 11. ALL FIXTURES SHALL HAVE A SHUT OFF OR LOCAL CONTROL VALVE AS REQUIRED.
 12. MECHANICAL DESIGNATION PER M-11-20-80.
 13. VALVE NOS. IN THE DOMESTIC WATER SYSTEM ARE NOT TO BE USED FOR THE PLUMBING OF THE HYDROPHOBIC FLUID AND ARE NOT REQUIRED ON THE HYDROPHOBIC

AUXILIARY BLDG.

RADWASTE BLDG.

PIPING TUNNEL

USAR FIG. 9.2-17-01

ESSENTIAL DRAWING

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<input type="radio"/> ISSUED	CHG. DOC.		PKG. NO.	

THIS OMC SUPERSEDES	REV.	THIS OMC SUPERSEDES	REV.
REVISION NOTES			

WOLF CREEK NUCLEAR OPERATING CORPORATION	ELECTRONIC APPROVAL
---	------------------------

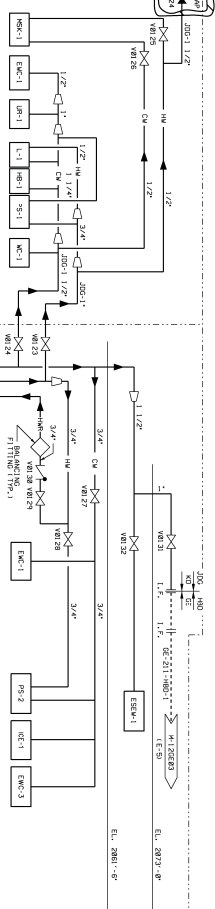
PIPING & INSTRUMENTATION

DIAGRAM DOMESTIC WATER SYSTEM

SCALE	DRAWING NUMBER	SHEET	REV
NONE	M-12KDN1		00

7	IM 121001	34X44 ES
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ABANDONED IN PLACE

CONTROL ROOM PANTRY,
TOILETS AND JANITOR'S CLOSETCONFERENCE
ROOM AREAWORK CONTROLS/
RELIEF CREW AREA

EL. 2845'-0"

EL. 2835'-0"

EL. 2825'-0"

EL. 2815'-0"

EL. 2805'-0"

EL. 2800'-0"

EL. 2795'-0"

EL. 2790'-0"

EL. 2785'-0"

EL. 2780'-0"

EL. 2775'-0"

EL. 2770'-0"

EL. 2765'-0"

EL. 2760'-0"

EL. 2755'-0"

EL. 2750'-0"

EL. 2745'-0"

EL. 2740'-0"

EL. 2735'-0"

EL. 2730'-0"

EL. 2725'-0"

EL. 2720'-0"

EL. 2715'-0"

EL. 2710'-0"

EL. 2705'-0"

EL. 2700'-0"

EL. 2695'-0"

EL. 2690'-0"

EL. 2685'-0"

EL. 2680'-0"

EL. 2675'-0"

EL. 2670'-0"

EL. 2665'-0"

EL. 2660'-0"

EL. 2655'-0"

EL. 2650'-0"

EL. 2645'-0"

EL. 2640'-0"

EL. 2635'-0"

EL. 2630'-0"

EL. 2625'-0"

EL. 2620'-0"

EL. 2615'-0"

EL. 2610'-0"

EL. 2605'-0"

EL. 2600'-0"

EL. 2595'-0"

EL. 2590'-0"

EL. 2585'-0"

EL. 2580'-0"

EL. 2575'-0"

EL. 2570'-0"

EL. 2565'-0"

EL. 2560'-0"

EL. 2555'-0"

EL. 2550'-0"

EL. 2545'-0"

EL. 2540'-0"

EL. 2535'-0"

EL. 2530'-0"

EL. 2525'-0"

EL. 2520'-0"

EL. 2515'-0"

EL. 2510'-0"

EL. 2505'-0"

EL. 2500'-0"

EL. 2495'-0"

EL. 2490'-0"

EL. 2485'-0"

EL. 2480'-0"

EL. 2475'-0"

EL. 2470'-0"

EL. 2465'-0"

EL. 2460'-0"

EL. 2455'-0"

EL. 2450'-0"

EL. 2445'-0"

EL. 2440'-0"

EL. 2435'-0"

EL. 2430'-0"

EL. 2425'-0"

EL. 2420'-0"

EL. 2415'-0"

EL. 2410'-0"

EL. 2405'-0"

EL. 2400'-0"

EL. 2395'-0"

EL. 2390'-0"

EL. 2385'-0"

EL. 2380'-0"

EL. 2375'-0"

EL. 2370'-0"

EL. 2365'-0"

EL. 2360'-0"

EL. 2355'-0"

EL. 2350'-0"

EL. 2345'-0"

EL. 2340'-0"

EL. 2335'-0"

EL. 2330'-0"

EL. 2325'-0"

EL. 2320'-0"

EL. 2315'-0"

EL. 2310'-0"

EL. 2305'-0"

EL. 2300'-0"

EL. 2295'-0"

EL. 2290'-0"

EL. 2285'-0"

EL. 2280'-0"

EL. 2275'-0"

EL. 2270'-0"

EL. 2265'-0"

EL. 2260'-0"

EL. 2255'-0"

EL. 2250'-0"

EL. 2245'-0"

EL. 2240'-0"

EL. 2235'-0"

EL. 2230'-0"

EL. 2225'-0"

EL. 2220'-0"

EL. 2215'-0"

EL. 2210'-0"

EL. 2205'-0"

EL. 2200'-0"

EL. 2195'-0"

EL. 2190'-0"

EL. 2185'-0"

EL. 2180'-0"

EL. 2175'-0"

EL. 2170'-0"

EL. 2165'-0"

EL. 2160'-0"

EL. 2155'-0"

EL. 2150'-0"

EL. 2145'-0"

EL. 2140'-0"

EL. 2135'-0"

EL. 2130'-0"

EL. 2125'-0"

EL. 2120'-0"

EL. 2115'-0"

EL. 2110'-0"

EL. 2105'-0"

EL. 2100'-0"

EL. 2095'-0"

EL. 2090'-0"

EL. 2085'-0"

EL. 2080'-0"

EL. 2075'-0"

EL. 2070'-0"

EL. 2065'-0"

EL. 2060'-0"

EL. 2055'-0"

EL. 2050'-0"

EL. 2045'-0"

EL. 2040'-0"

EL. 2035'-0"

EL. 2030'-0"

EL. 2025'-0"

EL. 2020'-0"

EL. 2015'-0"

EL. 2010'-0"

EL. 2005'-0"

EL. 2000'-0"

EL. 1995'-0"

EL. 1990'-0"

EL. 1985'-0"

EL. 1980'-0"

EL. 1975'-0"

EL. 1970'-0"

EL. 1965'-0"

EL. 1960'-0"

EL. 1955'-0"

EL. 1950'-0"

EL. 1945'-0"

EL. 1940'-0"

EL. 1935'-0"

EL. 1930'-0"

EL. 1925'-0"

EL. 1920'-0"

EL. 1915'-0"

EL. 1910'-0"

EL. 1905'-0"

EL. 1900'-0"

EL. 1895'-0"

EL. 1890'-0"

EL. 1885'-0"

EL. 1880'-0"

EL. 1875'-0"

EL. 1870'-0"

EL. 1865'-0"

EL. 1860'-0"

EL. 1855'-0"

EL. 1850'-0"

EL. 1845'-0"

EL. 1840'-0"

EL. 1835'-0"

EL. 1830'-0"

EL. 1825'-0"

EL. 1820'-0"

EL. 1815'-0"

EL. 1810'-0"

EL. 1805'-0"

EL. 1800'-0"

EL. 1795'-0"

EL. 1790'-0"

EL. 1785'-0"

EL. 1780'-0"

EL. 1775'-0"

EL. 1770'-0"

EL. 1765'-0"

EL. 1760'-0"

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EL. 1735'-0"

EL. 1730'-0"

EL. 1725'-0"

EL. 1720'-0"

EL. 1715'-0"

EL. 1710'-0"

EL. 1705'-0"

EL. 1700'-0"

EL. 1695'-0"

EL. 1690'-0"

EL. 1685'-0"

EL. 1680'-0"

EL. 1675'-0"

EL. 1670'-0"

EL. 1665'-0"

EL. 1660'-0"

EL. 1655'-0"

EL. 1650'-0"

EL. 1645'-0"

EL. 1640'-0"

EL. 1635'-0"

EL. 1630'-0"

EL. 1625'-0"

EL. 1620'-0"

EL. 1615'-0"

EL. 1610'-0"

EL. 1605'-0"

EL. 1600'-0"

EL. 1595'-0"

EL. 1590'-0"

EL. 1585'-0"

EL. 1580'-0"

EL. 1575'-0"

EL. 1570'-0"

EL. 1565'-0"

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EL. 1520'-0"

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EL. 1505'-0"

EL. 1500'-0"

EL. 1495'-0"

EL. 1490'-0"

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EL. 1480'-0"

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EL. 1460'-0"

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EL. 1450'-0"

EL. 1445'-0"

EL. 1440'-0"

EL. 1435'-0"

EL. 1430'-0"

EL. 1425'-0"

EL. 1420'-0"

EL. 1415'-0"

EL. 1410'-0"

EL. 1405'-0"

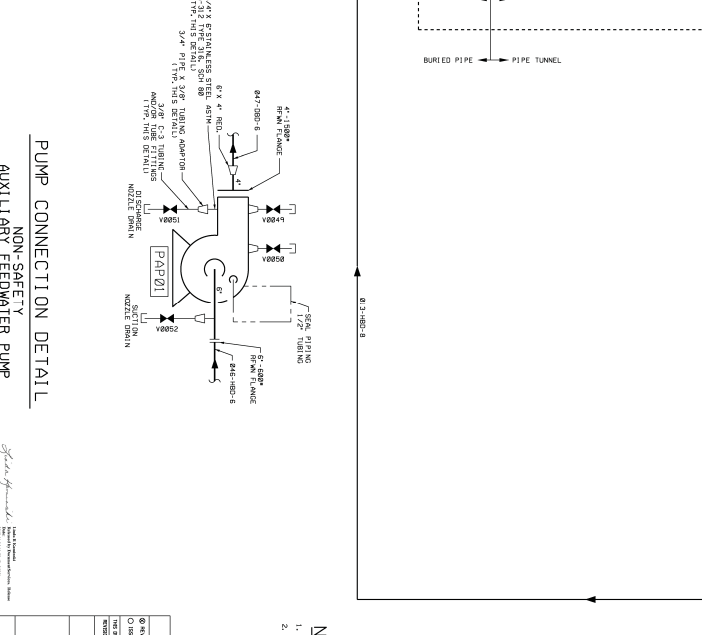
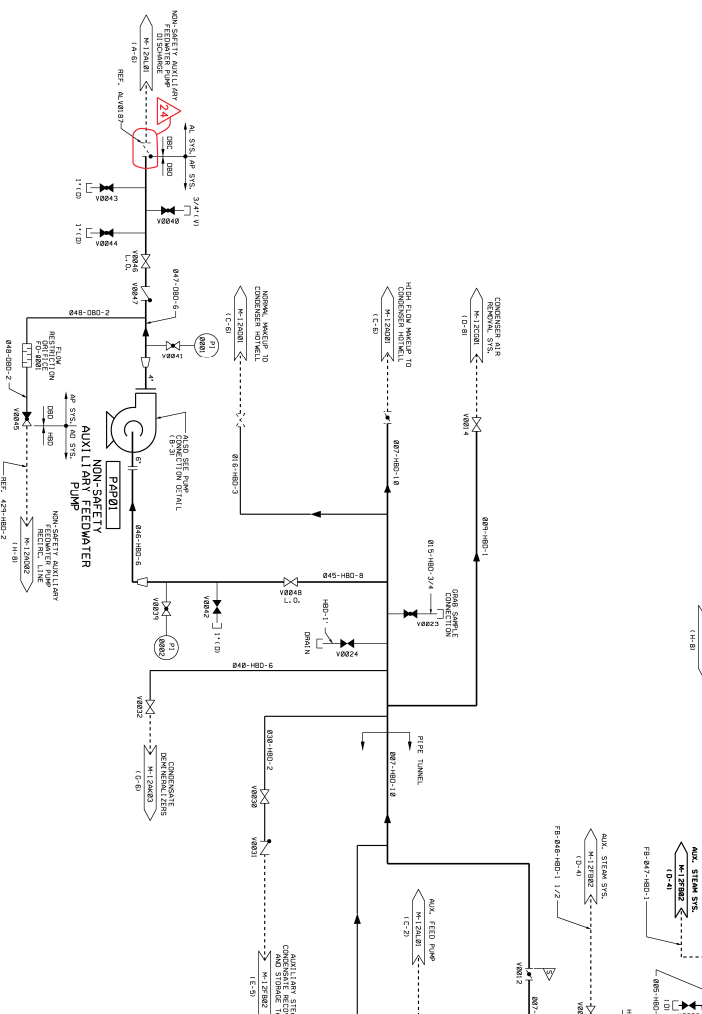
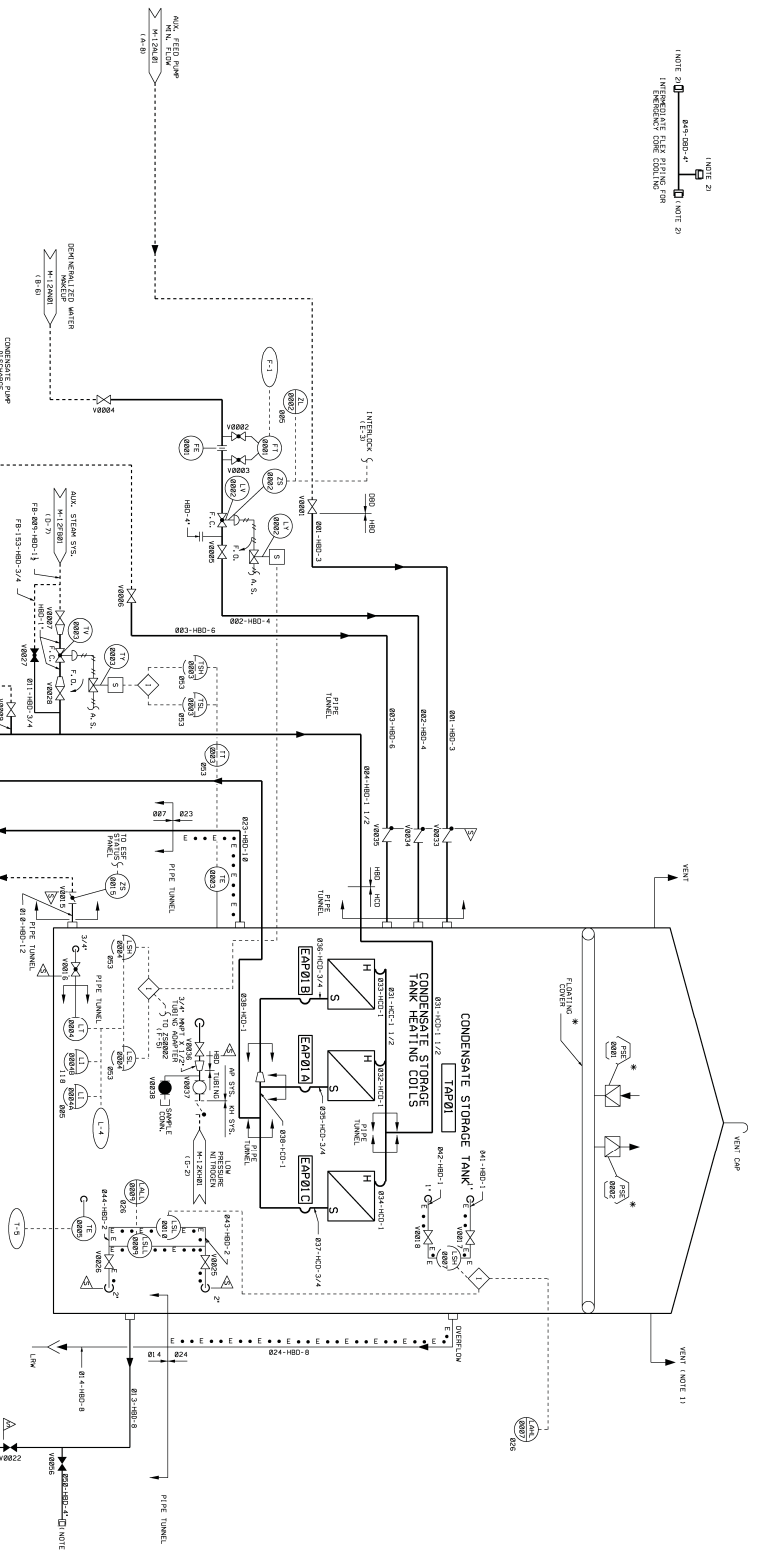
EL. 1400'-0"

EL. 1395'-0"

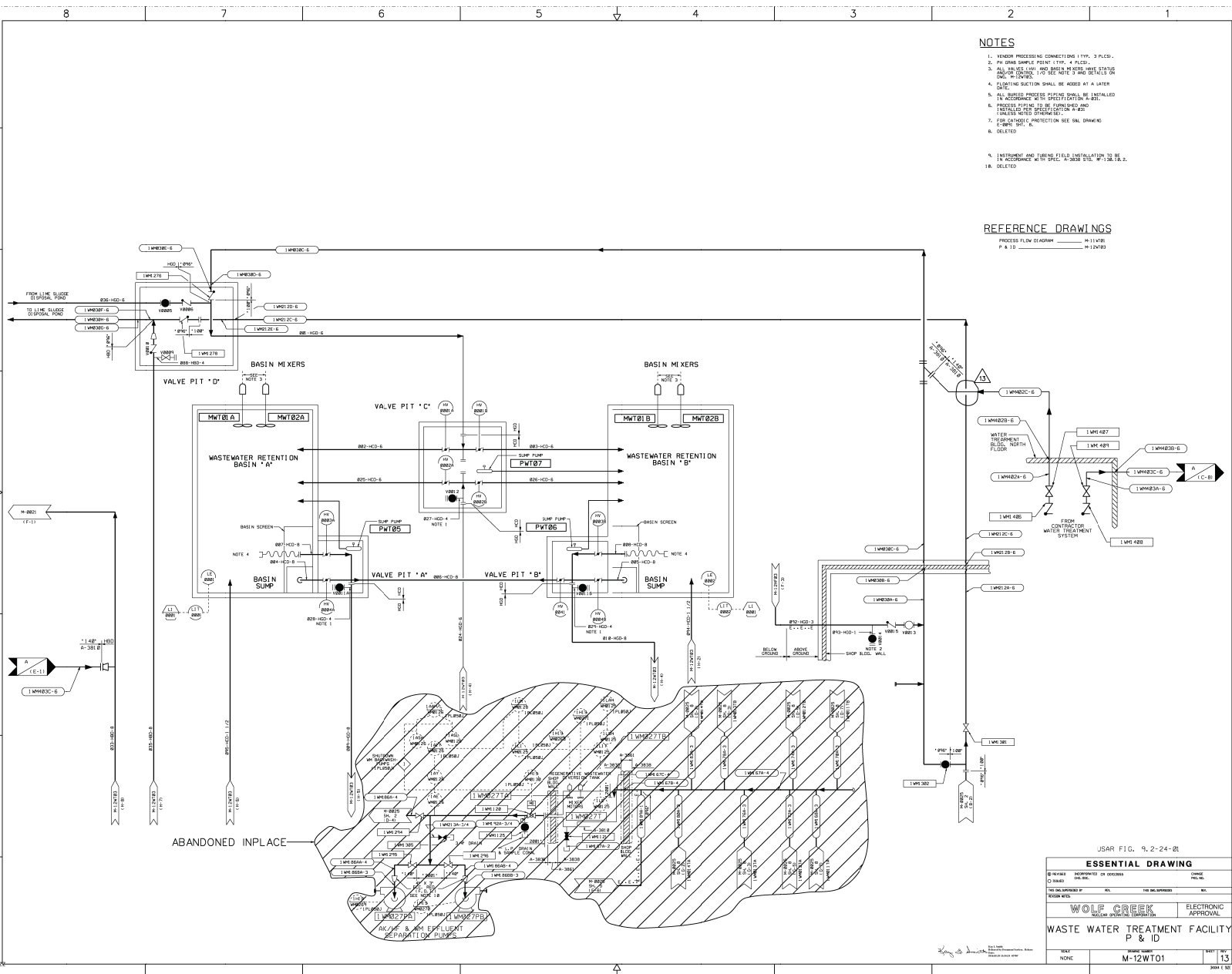
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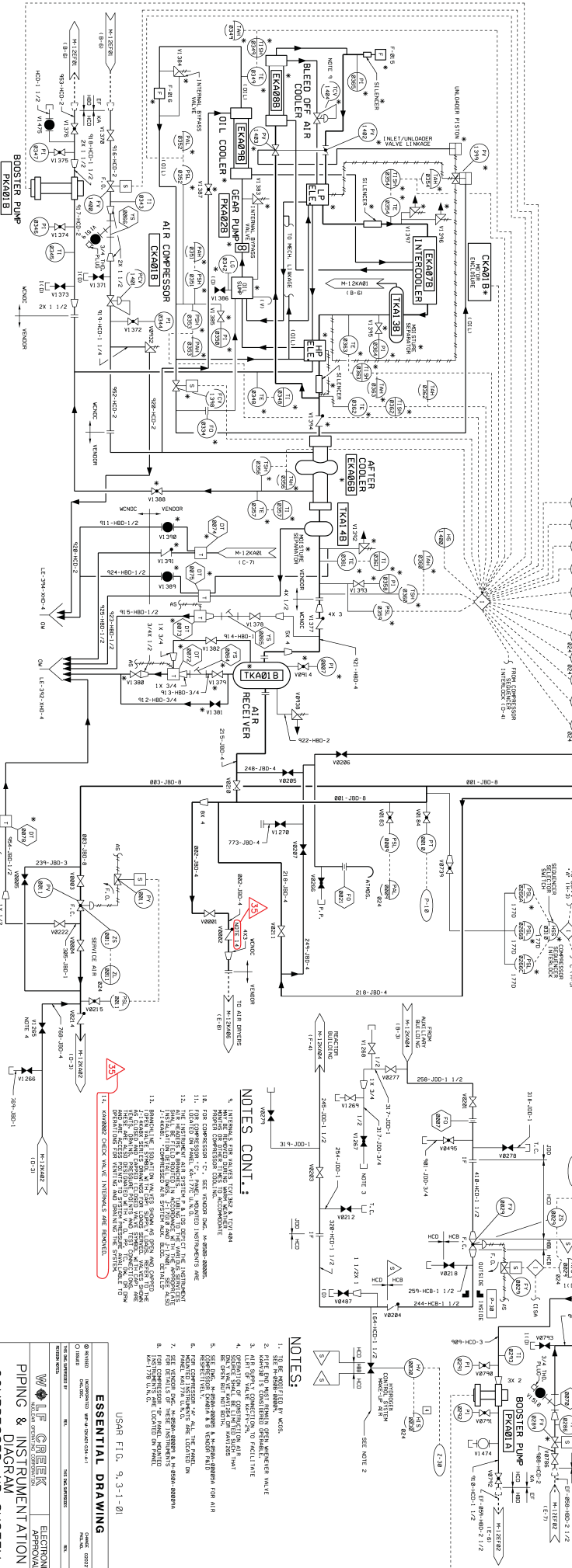
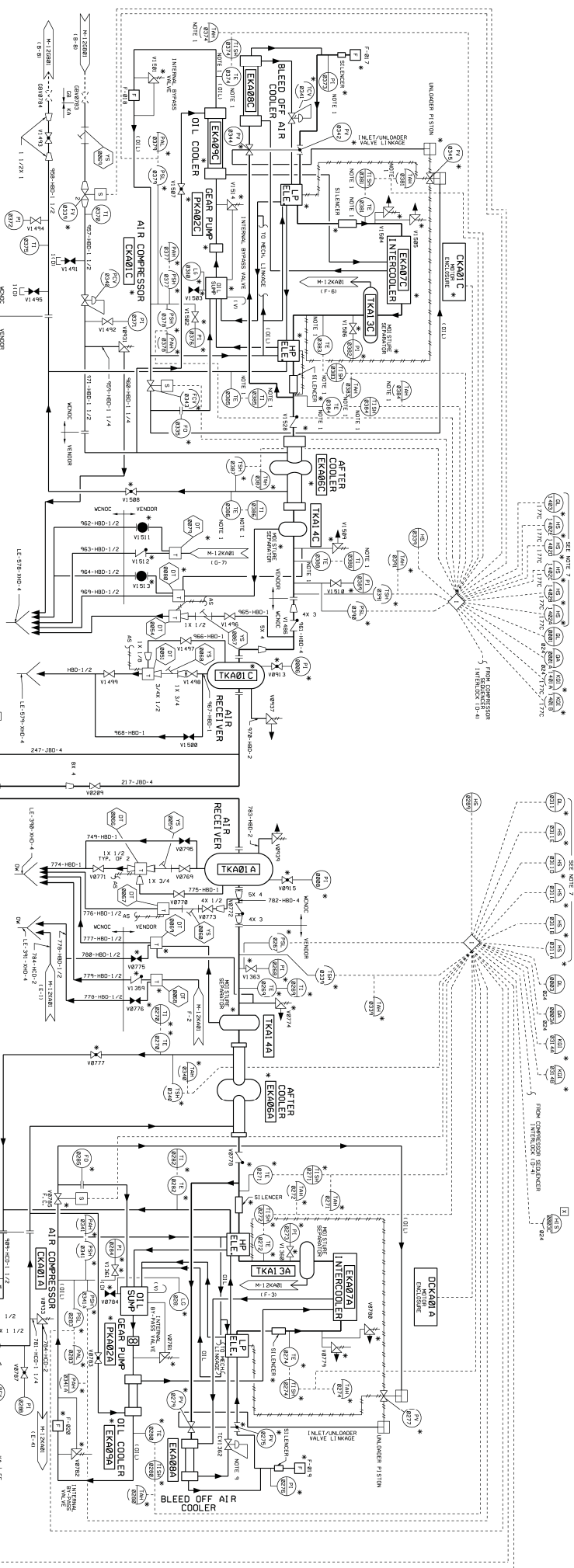
EL. 13

NOTE 20
 847-HSD-4" (NOTE 20)
 INTERMEDIATE FLEX PIPING FOR
 CONDENSATE COILS (LINE 10)



<p>NOTES</p> <p>1. CONDENSED STEAM AND INJECTION WATER.</p> <p>2. THIS CONNECTION IS TO BE USED ONLY FOR RETURN DESIGN BASIS.</p>	
<p>JSAR FID. 9.2.23-00</p>	
<p>ESSENTIAL DRAWING</p>	
<p>WIPER</p>	
<p>CONDENSATE STORAGE TANK</p>	
<p>TRANSFER SYSTEM</p>	
<p>APPROVAL</p>	
<p>24</p>	





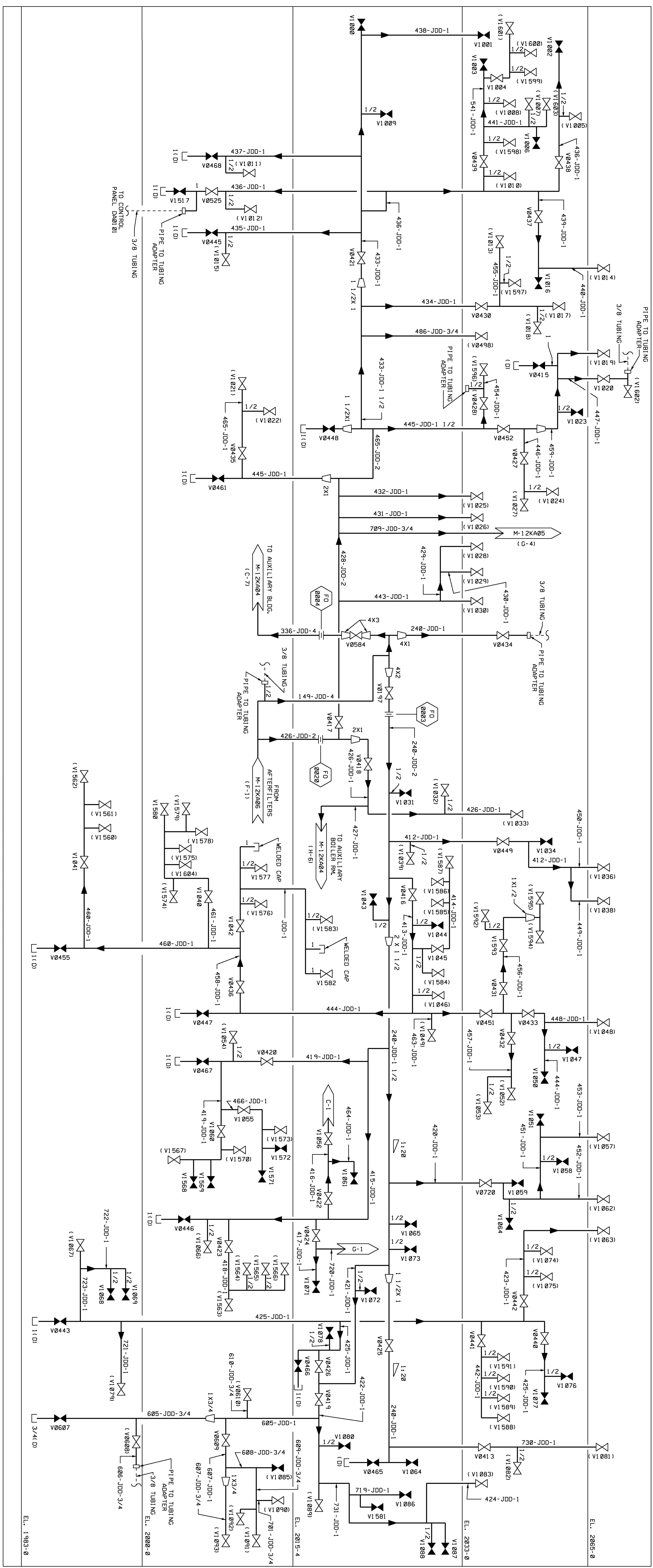
NOTES CONT.

1. 10. SEE SECTION 10 FOR MORE DETAILS.
2. 11. SEE SECTION 11 FOR MORE DETAILS.
3. 12. SEE SECTION 12 FOR MORE DETAILS.
4. 13. SEE SECTION 13 FOR MORE DETAILS.
5. 14. SEE SECTION 14 FOR MORE DETAILS.
6. 15. SEE SECTION 15 FOR MORE DETAILS.
7. 16. SEE SECTION 16 FOR MORE DETAILS.
8. 17. SEE SECTION 17 FOR MORE DETAILS.
9. 18. SEE SECTION 18 FOR MORE DETAILS.
10. 19. SEE SECTION 19 FOR MORE DETAILS.
11. 20. SEE SECTION 20 FOR MORE DETAILS.
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13. 22. SEE SECTION 22 FOR MORE DETAILS.
14. 23. SEE SECTION 23 FOR MORE DETAILS.
15. 24. SEE SECTION 24 FOR MORE DETAILS.
16. 25. SEE SECTION 25 FOR MORE DETAILS.
17. 26. SEE SECTION 26 FOR MORE DETAILS.
18. 27. SEE SECTION 27 FOR MORE DETAILS.
19. 28. SEE SECTION 28 FOR MORE DETAILS.
20. 29. SEE SECTION 29 FOR MORE DETAILS.
21. 30. SEE SECTION 30 FOR MORE DETAILS.
22. 31. SEE SECTION 31 FOR MORE DETAILS.
23. 32. SEE SECTION 32 FOR MORE DETAILS.
24. 33. SEE SECTION 33 FOR MORE DETAILS.
25. 34. SEE SECTION 34 FOR MORE DETAILS.
26. 35. SEE SECTION 35 FOR MORE DETAILS.
27. 36. SEE SECTION 36 FOR MORE DETAILS.
28. 37. SEE SECTION 37 FOR MORE DETAILS.
29. 38. SEE SECTION 38 FOR MORE DETAILS.
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31. 40. SEE SECTION 40 FOR MORE DETAILS.
32. 41. SEE SECTION 41 FOR MORE DETAILS.
33. 42. SEE SECTION 42 FOR MORE DETAILS.
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35. 44. SEE SECTION 44 FOR MORE DETAILS.
36. 45. SEE SECTION 45 FOR MORE DETAILS.
37. 46. SEE SECTION 46 FOR MORE DETAILS.
38. 47. SEE SECTION 47 FOR MORE DETAILS.
39. 48. SEE SECTION 48 FOR MORE DETAILS.
40. 49. SEE SECTION 49 FOR MORE DETAILS.
41. 50. SEE SECTION 50 FOR MORE DETAILS.
42. 51. SEE SECTION 51 FOR MORE DETAILS.
43. 52. SEE SECTION 52 FOR MORE DETAILS.
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45. 54. SEE SECTION 54 FOR MORE DETAILS.
46. 55. SEE SECTION 55 FOR MORE DETAILS.
47. 56. SEE SECTION 56 FOR MORE DETAILS.
48. 57. SEE SECTION 57 FOR MORE DETAILS.
49. 58. SEE SECTION 58 FOR MORE DETAILS.
50. 59. SEE SECTION 59 FOR MORE DETAILS.
51. 60. SEE SECTION 60 FOR MORE DETAILS.
52. 61. SEE SECTION 61 FOR MORE DETAILS.
53. 62. SEE SECTION 62 FOR MORE DETAILS.
54. 63. SEE SECTION 63 FOR MORE DETAILS.
55. 64. SEE SECTION 64 FOR MORE DETAILS.
56. 65. SEE SECTION 65 FOR MORE DETAILS.
57. 66. SEE SECTION 66 FOR MORE DETAILS.
58. 67. SEE SECTION 67 FOR MORE DETAILS.
59. 68. SEE SECTION 68 FOR MORE DETAILS.
60. 69. SEE SECTION 69 FOR MORE DETAILS.
61. 70. SEE SECTION 70 FOR MORE DETAILS.
62. 71. SEE SECTION 71 FOR MORE DETAILS.
63. 72. SEE SECTION 72 FOR MORE DETAILS.
64. 73. SEE SECTION 73 FOR MORE DETAILS.
65. 74. SEE SECTION 74 FOR MORE DETAILS.
66. 75. SEE SECTION 75 FOR MORE DETAILS.
67. 76. SEE SECTION 76 FOR MORE DETAILS.
68. 77. SEE SECTION 77 FOR MORE DETAILS.
69. 78. SEE SECTION 78 FOR MORE DETAILS.
70. 79. SEE SECTION 79 FOR MORE DETAILS.
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81. 90. SEE SECTION 90 FOR MORE DETAILS.
82. 91. SEE SECTION 91 FOR MORE DETAILS.
83. 92. SEE SECTION 92 FOR MORE DETAILS.
84. 93. SEE SECTION 93 FOR MORE DETAILS.
85. 94. SEE SECTION 94 FOR MORE DETAILS.
86. 95. SEE SECTION 95 FOR MORE DETAILS.
87. 96. SEE SECTION 96 FOR MORE DETAILS.
88. 97. SEE SECTION 97 FOR MORE DETAILS.
89. 98. SEE SECTION 98 FOR MORE DETAILS.
90. 99. SEE SECTION 99 FOR MORE DETAILS.
91. 100. SEE SECTION 100 FOR MORE DETAILS.

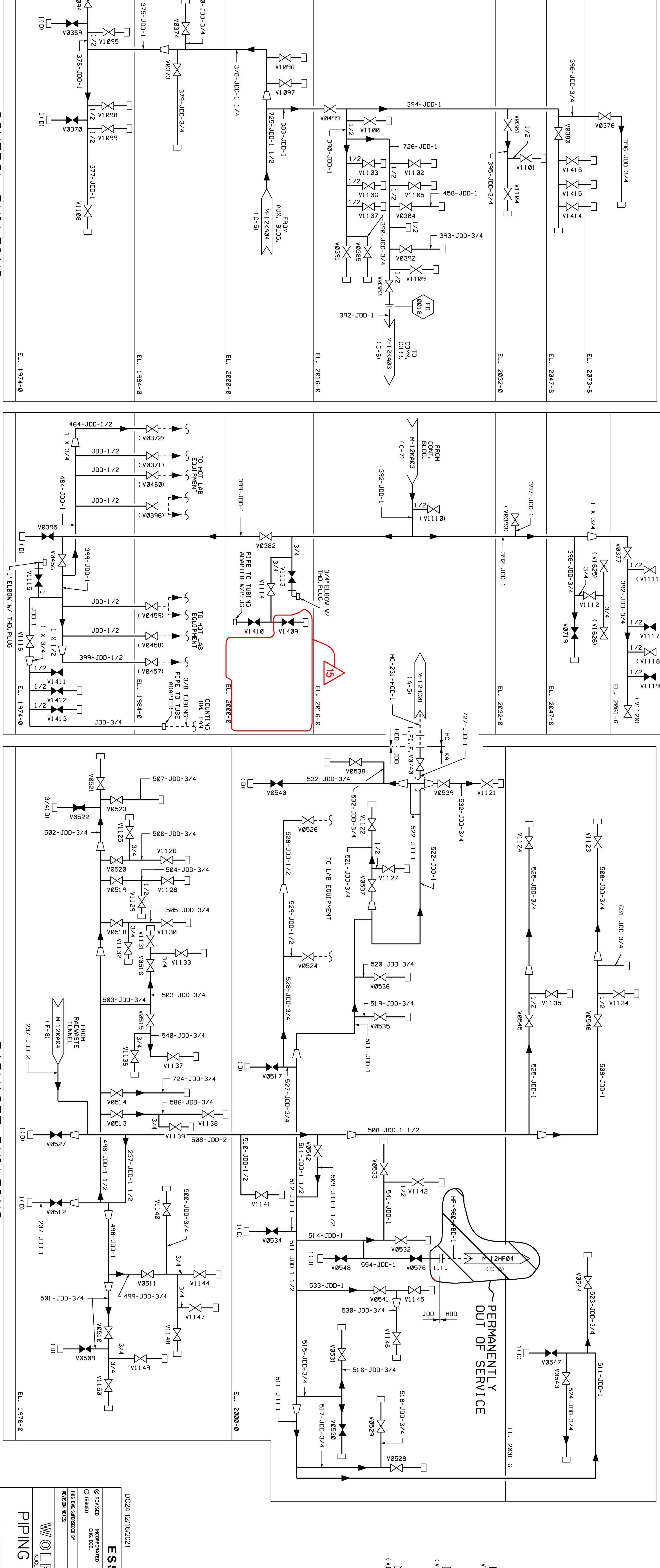
USAR FIG. 9-3-1-01

ESSENTIAL DRAWING

WALF CREEK ELECTRONIC APPROVAL
PIPING & INSTRUMENTATION
COMpressed AIR SYSTEM
M-12KAO1



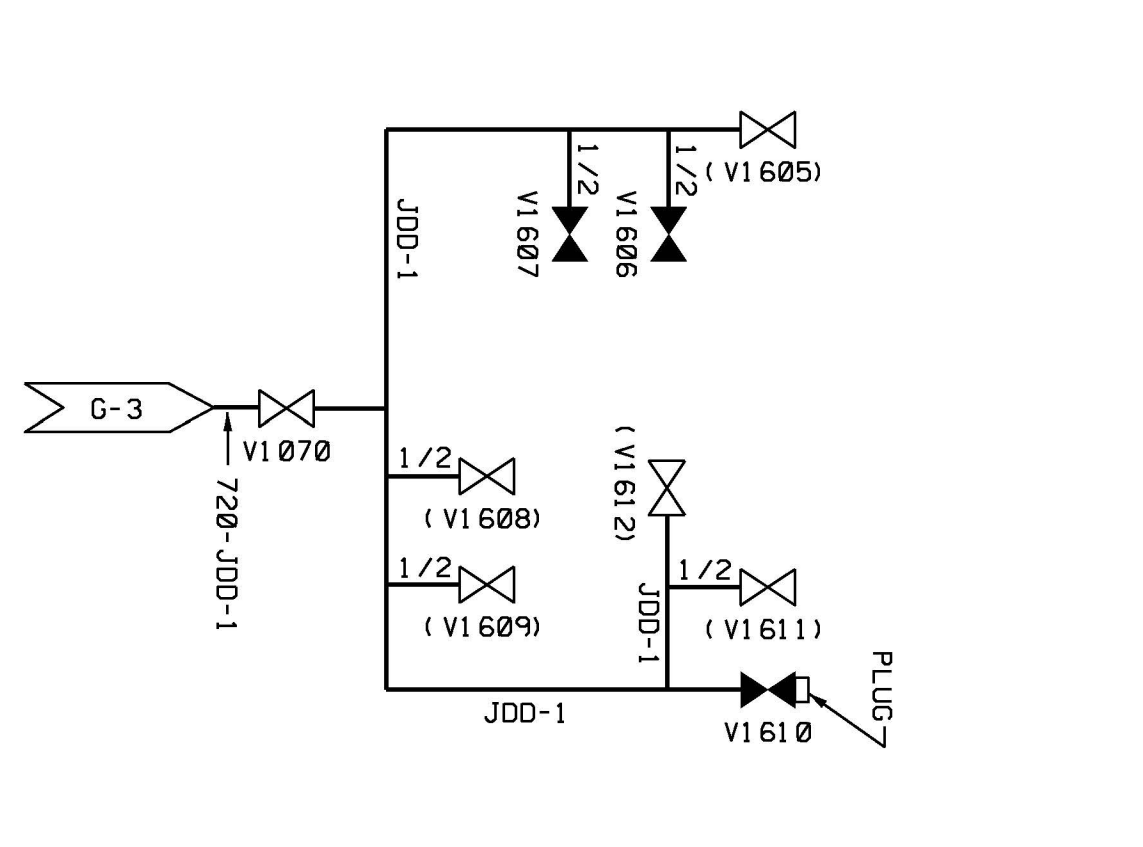
TURBINE BUILDING



CONTROL BUILDING

COMMUNICATIONS CORRIDOR

RADWASTE BUILDING



NOTES

1. THE INSTRUMENT AIR SYSTEM P & ID'S...
2. THE INSTRUMENT AIR SYSTEM P & ID'S...
3. THE INSTRUMENT AIR SYSTEM P & ID'S...
4. THE INSTRUMENT AIR SYSTEM P & ID'S...
5. THE INSTRUMENT AIR SYSTEM P & ID'S...
6. THE INSTRUMENT AIR SYSTEM P & ID'S...
7. THE INSTRUMENT AIR SYSTEM P & ID'S...
8. THE INSTRUMENT AIR SYSTEM P & ID'S...
9. THE INSTRUMENT AIR SYSTEM P & ID'S...

USAR FIG. 9.3-1-03

DOCA 1216/2021

ESSENTIAL DRAWING

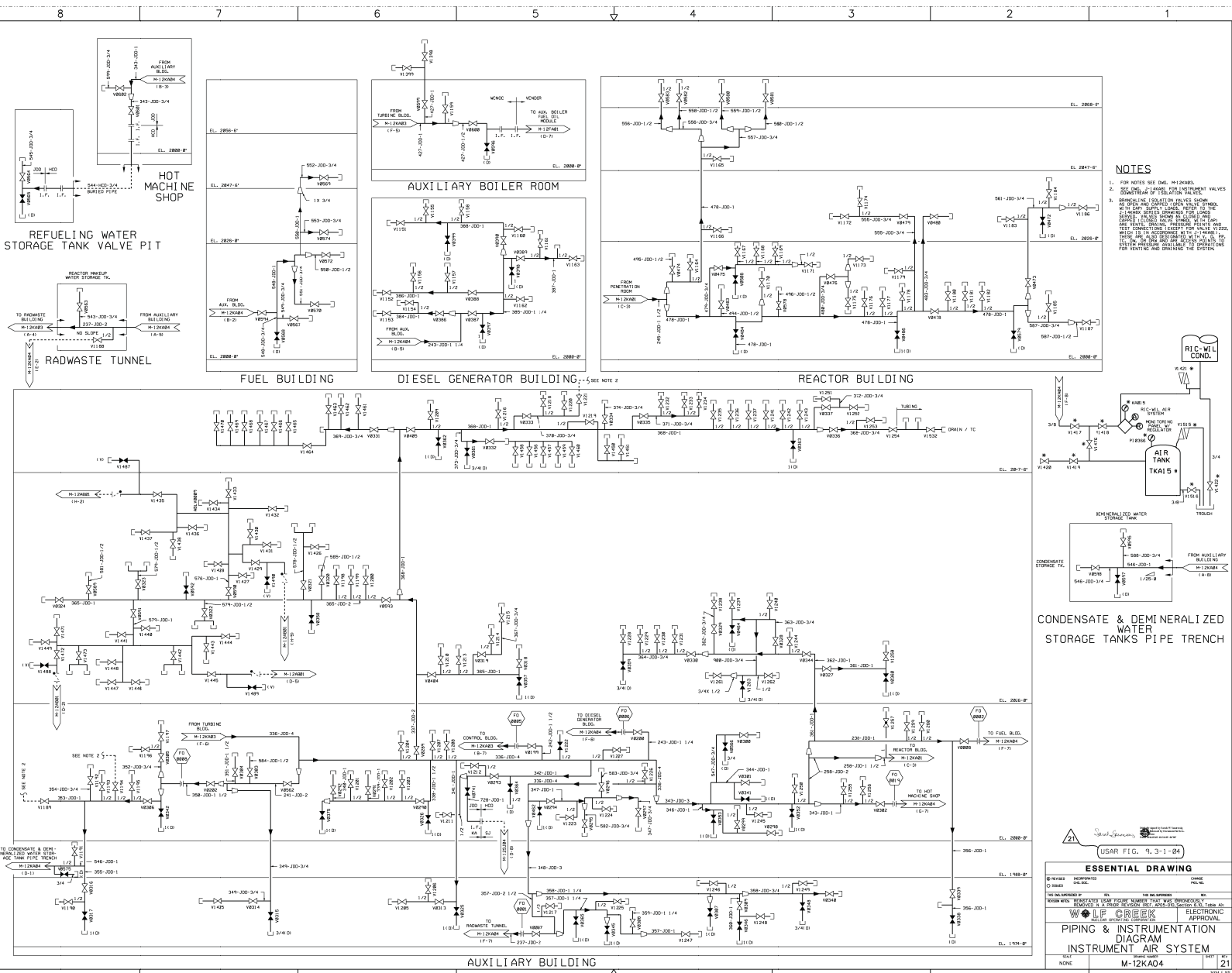
WOLF CREEK ELECTRONIC APPROVAL

PIPING & INSTRUMENTATION

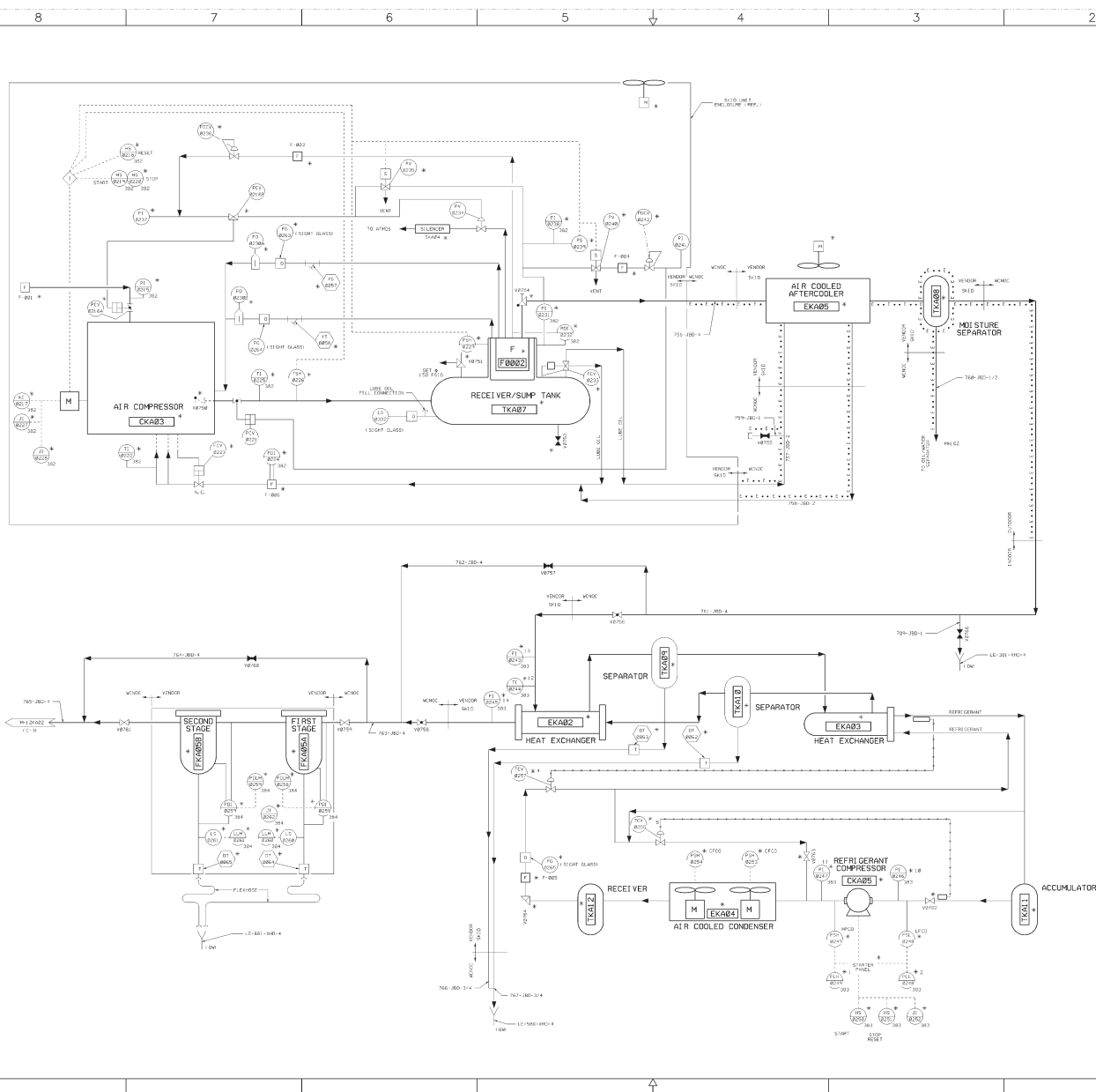
INSTRUMENT AIR SYSTEM

SCALE: NONE

DATE: 15







NOTES

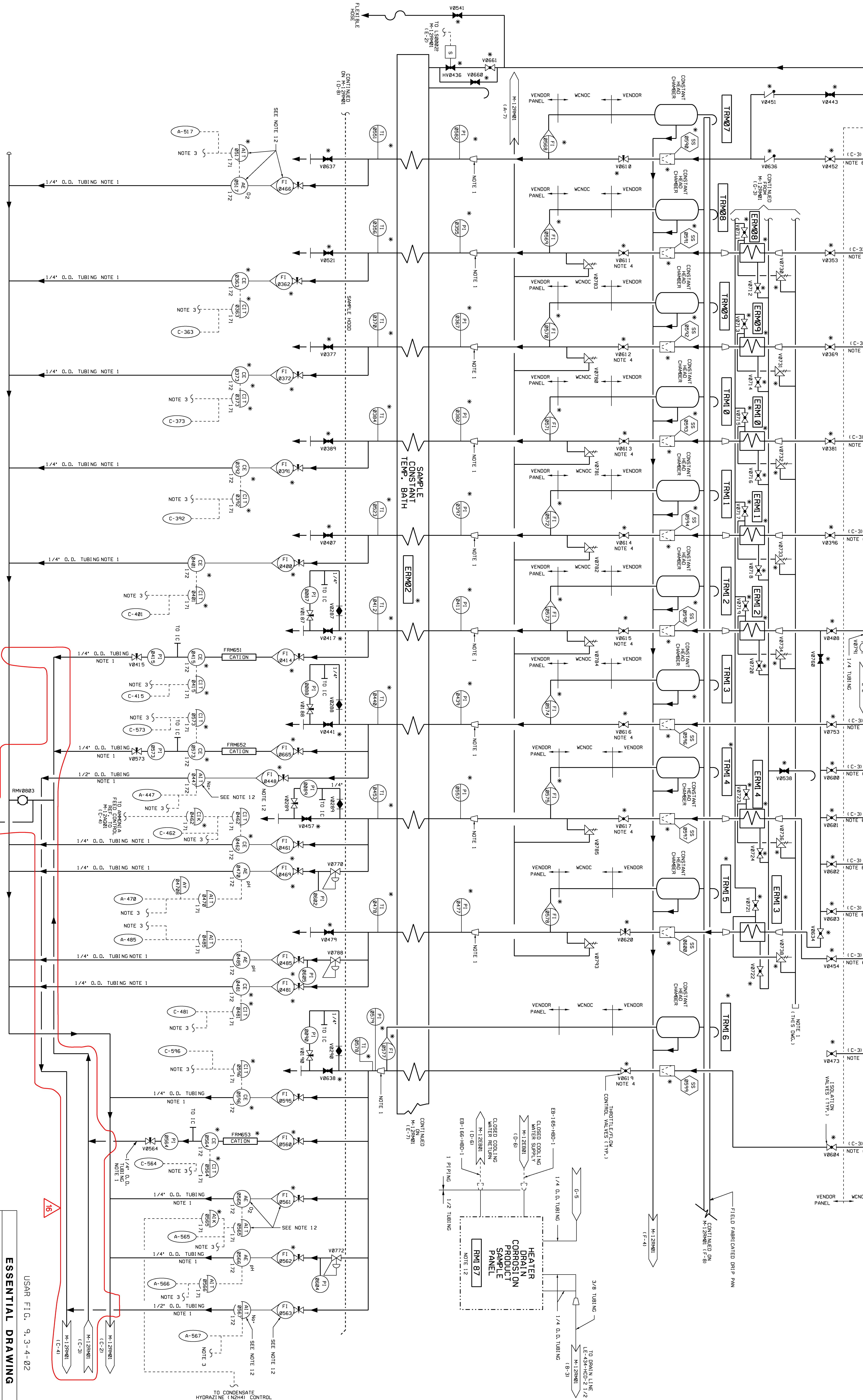
1. FOR NOTES SEE DWG. M-12K022 AND M-12K023

USAR FIG. 9.3-1 07

ESSENTIAL DRAWING

@ REVISED INCORPORATED @ ISSUED ONE BOX		PAGE NO. 1	
WOLF CREEK REGIONAL WATER	PWT	THE BOLD SUBMITTER:	PROJECT:
ELECTRICALLY CONVERTED PER AF 05-01.8			
WOLF CREEK (LOCAL OPERATING COMPANY)		ELECTRONIC APPROVAL	
PIPING & INSTRUMENTATION DIAGRAM COMPRESSED AIR SYSTEM			
DATE NONE	M-12KA07		SHEET

NOTES
FOR GENERAL NOTES SEE M-12RM01.
1. PIPE PLANT MUST BE RECHECKED WHENEVER RMV0789 IS CLOSED.



ESSENTIAL DRAWING

USAR FIG. 9.3-4-02

WILCOX
Nuclear Engineering Corporation
Piping & Instrumentation
Process Sampling System

REVISIONS:
REV. 1: INCORPORATED WP-M-12RM02-015-A-1
REV. 2: ISSUED
REV. 3: THIS Dwg. SUPERSEDES
REV. 4: NONE

SCALE: NONE

SHEET: 16

DATE: 02/03/74

APPROVAL: ELECTRONIC



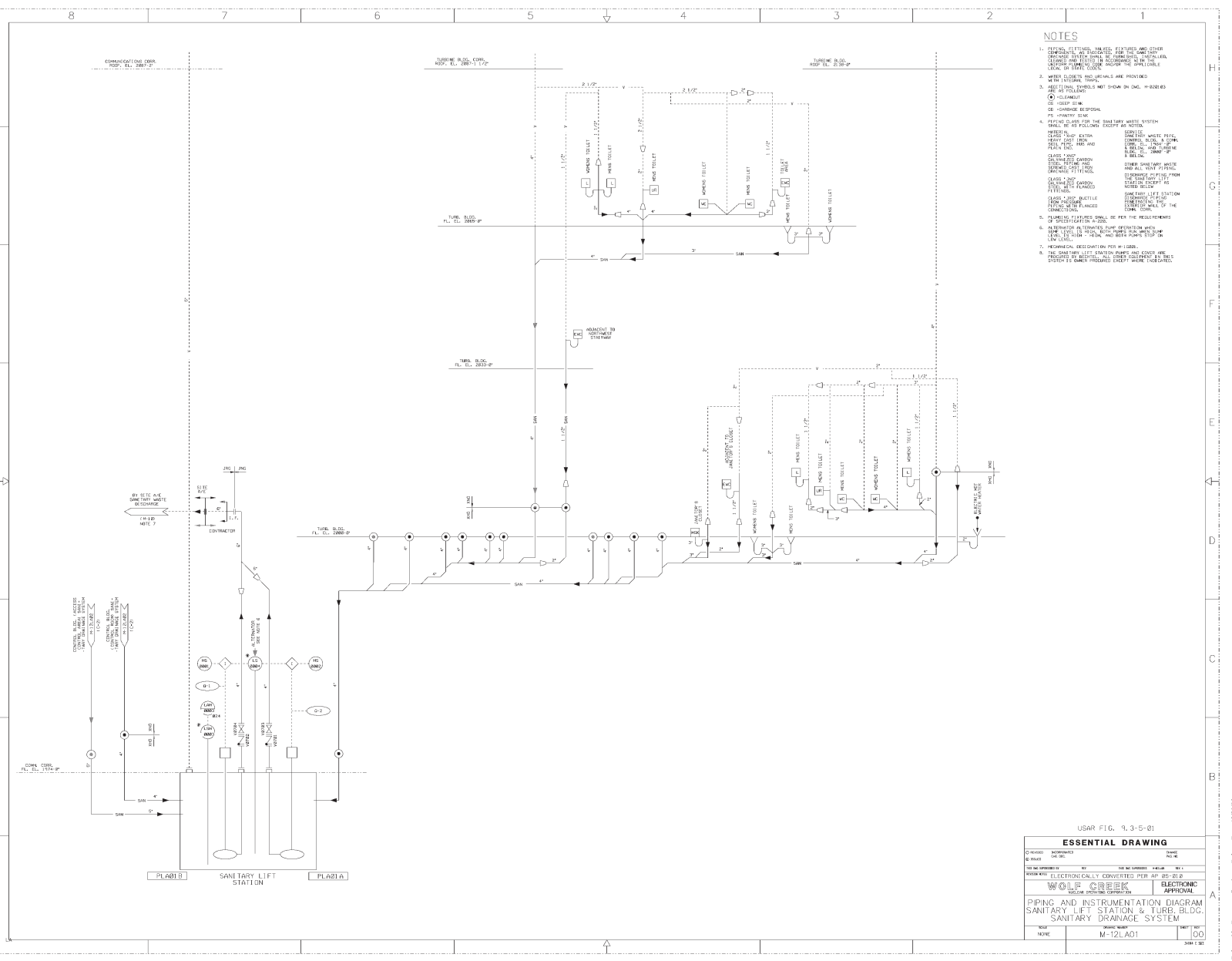
USAR FIG. 9, 3-4-03			
ESSENTIAL DRAWING			
<input checked="" type="checkbox"/> REVISION	INFORMATION CHG. DES.	CHANGE REASON	
FIG. UNAPPROVED BY		FIG. UNAPPROVED BY	
REVISION NUMBER		TYPE	
REVISED PER AM 02-018, SECTION 6.18, TABLE 4, TYPE WOLF CREEK ELECTRO NUCLEAR OPERATING DIVISION APPROV PIPING & INSTRUMENTATION DIAGRAM PROCESS SAMPLING SYSTEM			
SCALE	DRAWING NUMBER	SHEET	
NONE	M-12RM03	34	

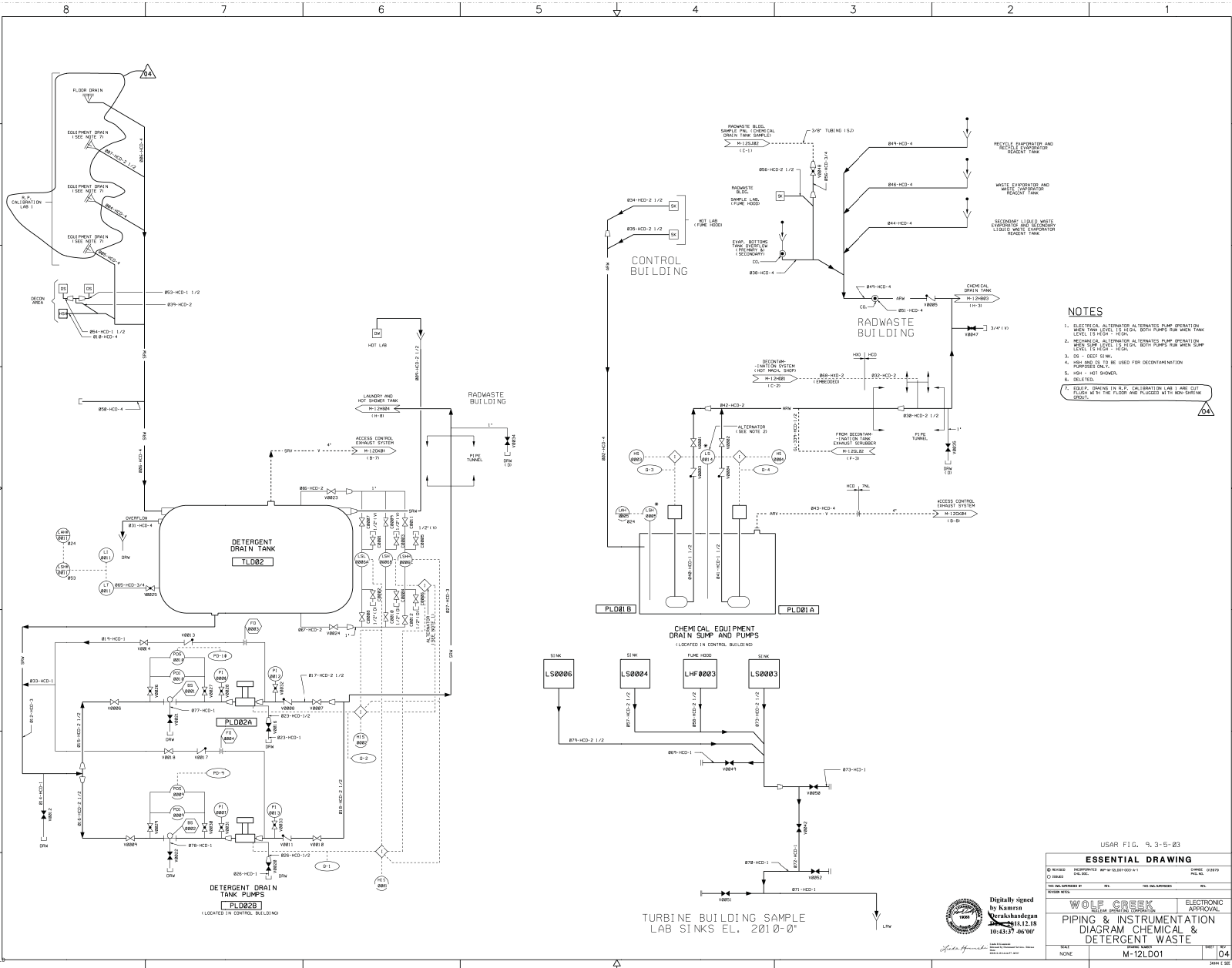
NOTES

1. TRAP, SETTING, VALVED, FITTINGS AND OTHER COMPONENTS ARE FOLLOWED FROM THE SANITARY DRAINAGE AND INSTRUMENTATION DIAGRAMS IN THE LOCAL OR REMOTE ROOMS AND/OR THE AVAILABLE LOCAL OR REMOTE ROOMS.
2. WHEN LOCALS AND REMOTE ARE PROVIDED.
3. WHEN LOCALS AND REMOTE ARE PROVIDED.
4. WHEN LOCALS AND REMOTE ARE PROVIDED.
5. WHEN LOCALS AND REMOTE ARE PROVIDED.
6. WHEN LOCALS AND REMOTE ARE PROVIDED.
7. WHEN LOCALS AND REMOTE ARE PROVIDED.
8. WHEN LOCALS AND REMOTE ARE PROVIDED.
9. WHEN LOCALS AND REMOTE ARE PROVIDED.
10. WHEN LOCALS AND REMOTE ARE PROVIDED.

USAR FIG. 4.3-5-01

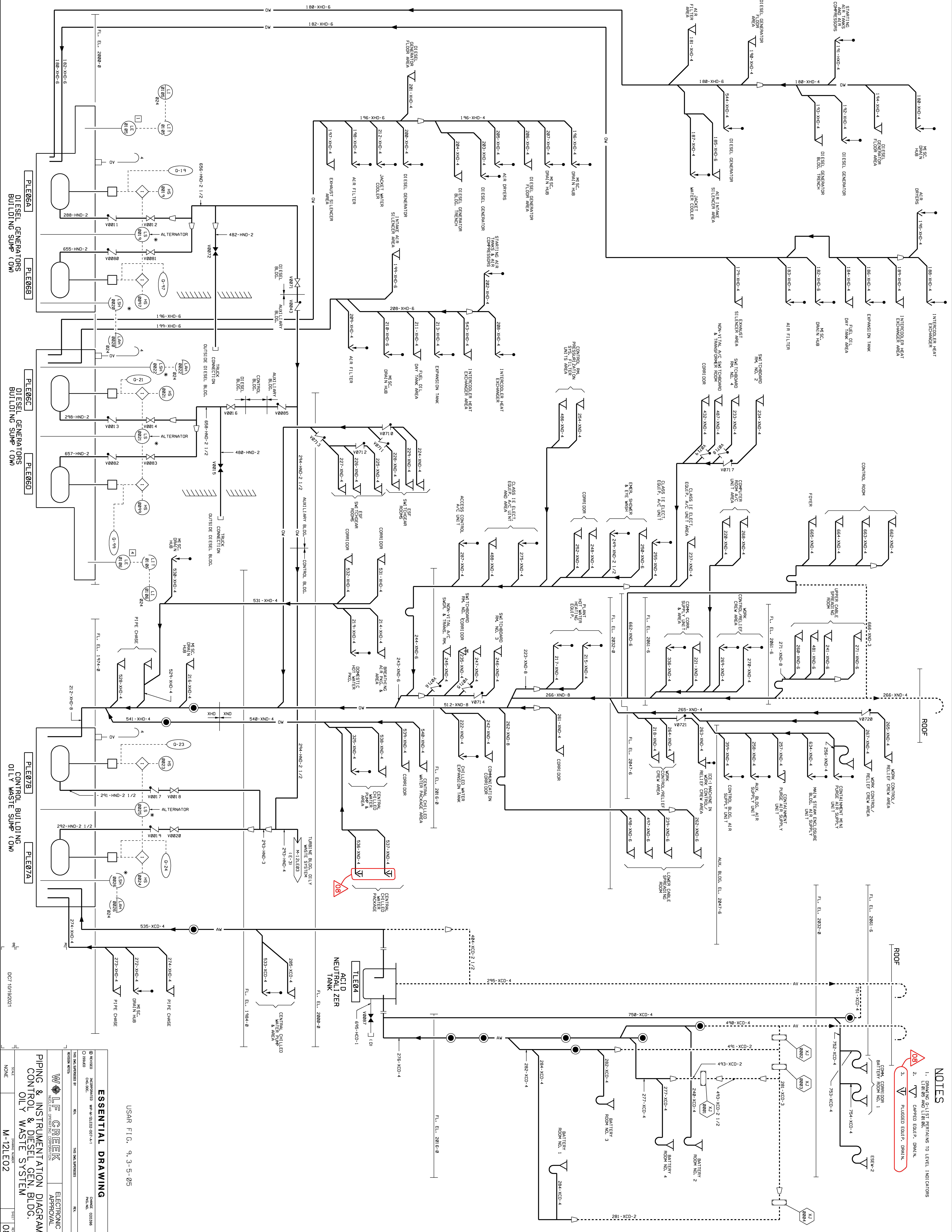
ESSENTIAL DRAWING			
DATE	BY	CHKD	APP'D
10/1/00	W. J. H. H.	W. J. H. H.	W. J. H. H.
ELECTRONICALLY CONVERTED FROM 4.3-5-01			
W. J. H. H.		ELECTRONIC APPROVAL	
PIPING AND INSTRUMENTATION DIAGRAM			
SANITARY LIFT STATION & TURB. BLDG.			
SANITARY DRAINAGE SYSTEM			
NO.	M-12L A01		REV.
100			100





NOTES

1. DRAWING DOTTED LINE REMAINS TO LEVEL INDICATORS
2. CAPPED EQUIP. DRAIN.
3. PLUGGED EQUIP. DRAIN.



USAR FIG. 9, 3-5-05

ESSENTIAL DRAWING

REVISIONS

NO.	DESCRIPTION	DATE	BY	CHKD.
1	ISSUED	02/03/96	W. J. HARRIS	W. J. HARRIS
2	REVISED	02/03/96	W. J. HARRIS	W. J. HARRIS

DESIGNED BY: W. J. HARRIS

CHECKED BY: W. J. HARRIS

APPROVED BY: W. J. HARRIS

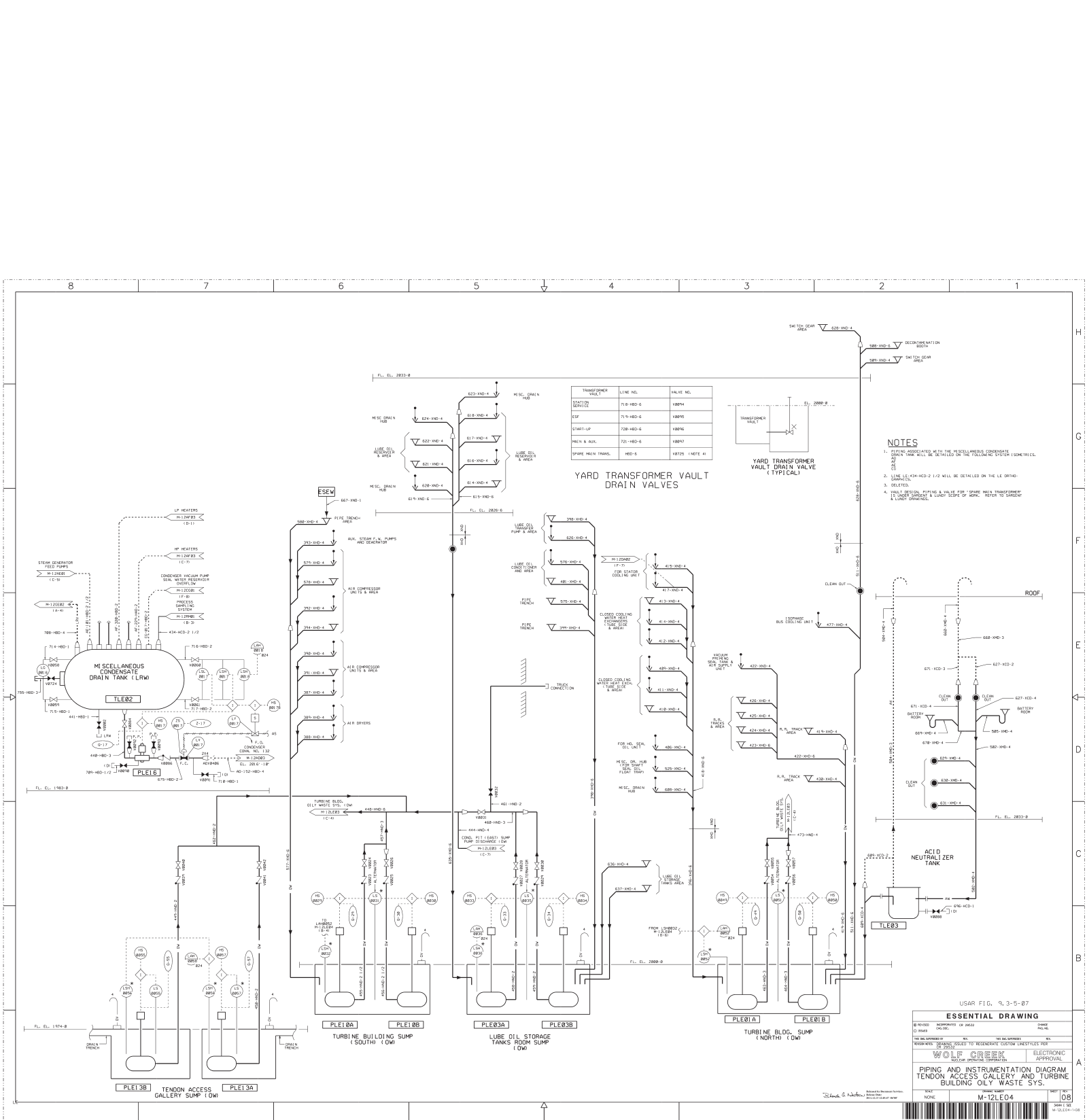
SCALE: NONE

DWG NO: 10192021

SHEET NO: 08

TOTAL SHEETS: 08

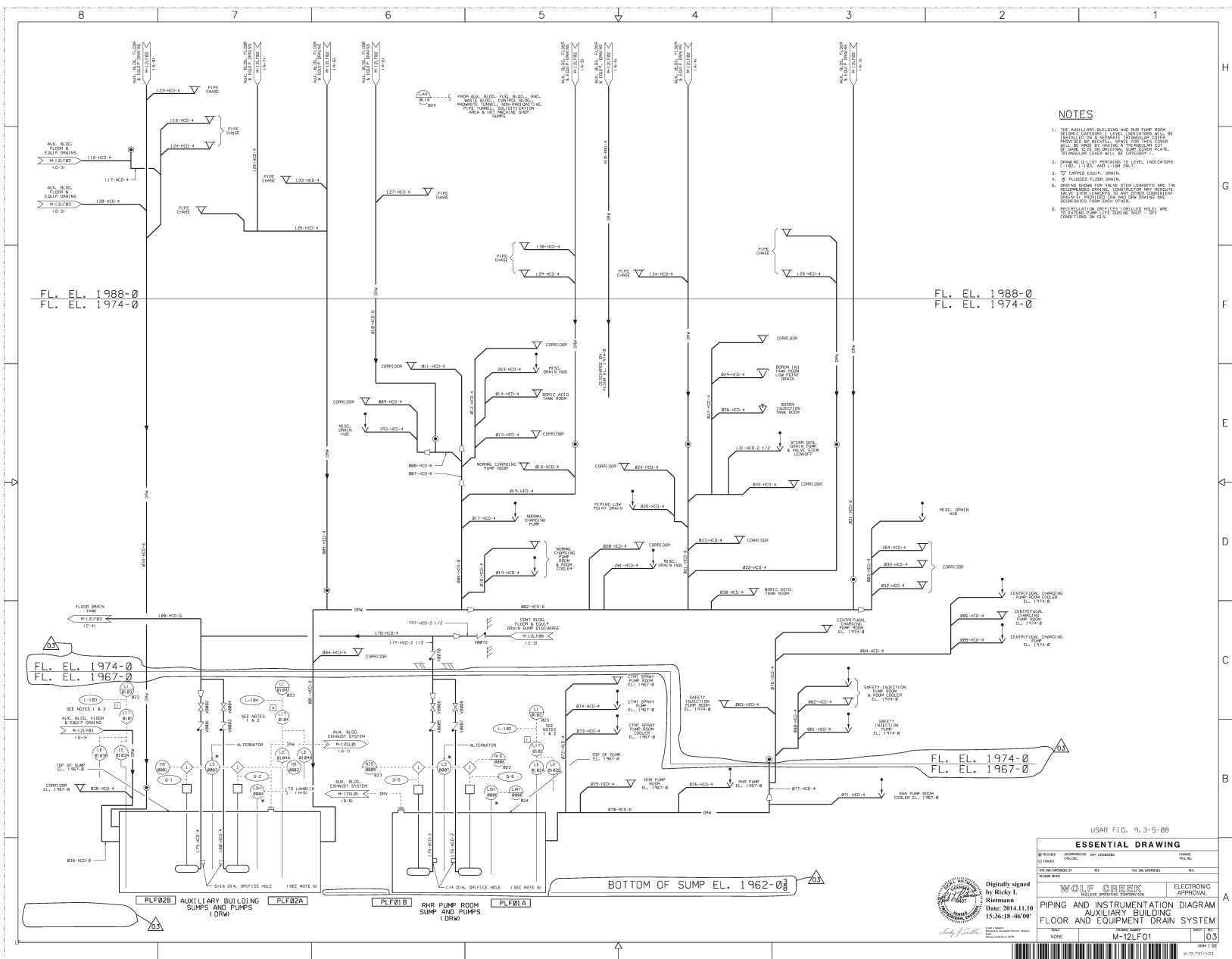
PROJECT: PIPING & INSTRUMENTATION DIAGRAM FOR DIESEL GENERATOR BUILDING CONTROL AND OIL WASTE SYSTEM

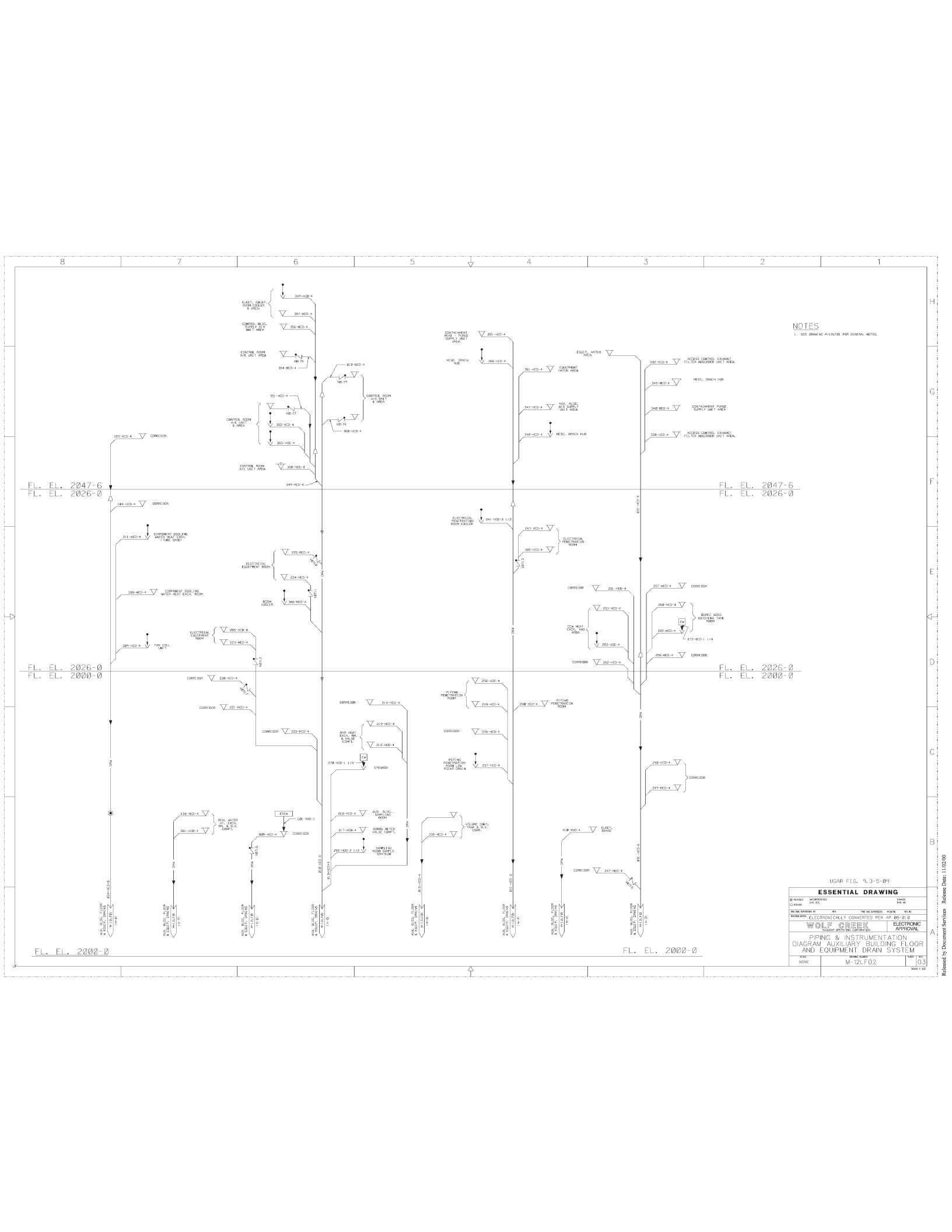


USAR FIG. 9, 3-5-07

ESSENTIAL DRAWING

REVISION	DATE	BY	CHKD	APPD
1	01/01/07	WOLF CREEK		
2	02/01/07	WOLF CREEK		
3	03/01/07	WOLF CREEK		
4	04/01/07	WOLF CREEK		
5	05/01/07	WOLF CREEK		
6	06/01/07	WOLF CREEK		
7	07/01/07	WOLF CREEK		
8	08/01/07	WOLF CREEK		
9	09/01/07	WOLF CREEK		
10	10/01/07	WOLF CREEK		
11	11/01/07	WOLF CREEK		
12	12/01/07	WOLF CREEK		
13	01/01/08	WOLF CREEK		
14	02/01/08	WOLF CREEK		
15	03/01/08	WOLF CREEK		
16	04/01/08	WOLF CREEK		
17	05/01/08	WOLF CREEK		
18	06/01/08	WOLF CREEK		
19	07/01/08	WOLF CREEK		
20	08/01/08	WOLF CREEK		
21	09/01/08	WOLF CREEK		
22	10/01/08	WOLF CREEK		
23	11/01/08	WOLF CREEK		
24	12/01/08	WOLF CREEK		
25	01/01/09	WOLF CREEK		
26	02/01/09	WOLF CREEK		
27	03/01/09	WOLF CREEK		
28	04/01/09	WOLF CREEK		
29	05/01/09	WOLF CREEK		
30	06/01/09	WOLF CREEK		
31	07/01/09	WOLF CREEK		
32	08/01/09	WOLF CREEK		
33	09/01/09	WOLF CREEK		
34	10/01/09	WOLF CREEK		
35	11/01/09	WOLF CREEK		
36				

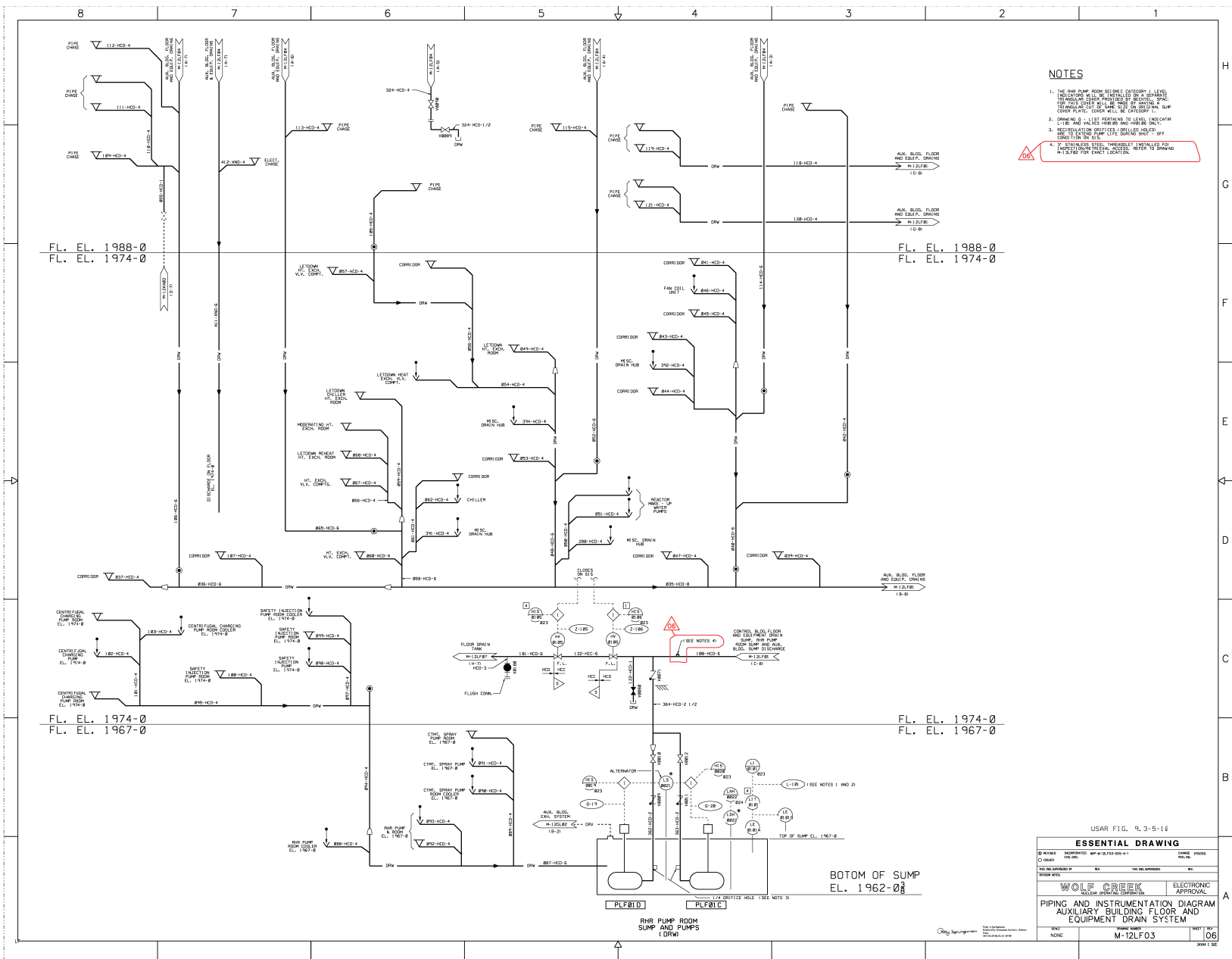


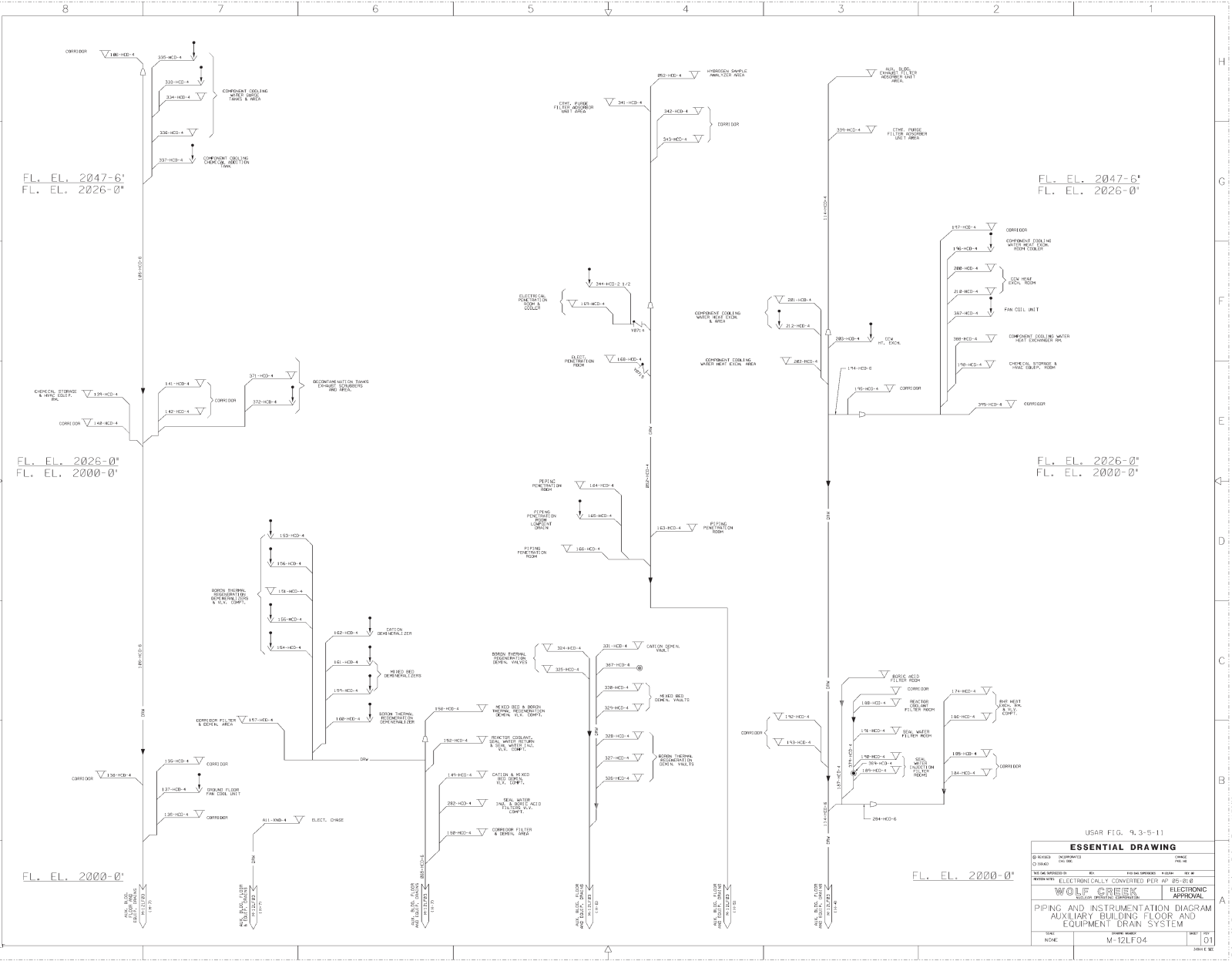


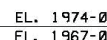
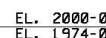
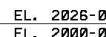
NOTES
1. SEE DRAWING M-12LF02 FOR GENERAL NOTES.







USAR FIG. 9.3-5-09

ESSENTIAL DRAWING			
DESIGNED BY	ENGINEERED BY	DATE	REVISION
WOLF	WOLF	10/10/09	1
ELECTRONICALLY CONVERTED PER AP-05-01.8			
WOLF		ELECTRONIC	
WOLF		APPROVAL	
PIPING & INSTRUMENTATION DIAGRAM, AUXILIARY BUILDING FLOOR AND EQUIPMENT DRAIN SYSTEM			
SCALE	DATE	BY	CHKD
1:1	10/10/09	M-12LF02	10/10/09








3.  ORIGIN FIELD BLANK, DEVICE DEFECT, OR DRAIN FROM THE PROCESS STREAM IS INDICATED. EQUIPMENT DRIVEN LINES AND HEATING/STEAM LAMPFLOW SHALL BE CIRCLED AND INDICATED AS NECESSARY TO CONNECT TO THE DRIVING RULES INDICATED.
4.  INDICATED MULTI-STREAM DRAIN CONNECTION FROM LINE (1, 2, 3) TO SHEET.
5.  INDICATED SOLIDS MATERIAL FLOW. DRAIN OR LAMPFLOW CONNECTION TO USE.
6.  INDICATED CAPPED EQUIPMENT DRAIN.
7.  SELF-CONSISTENT FLOW INSTRUMENT PIPING. CAPPED OR USED FOR ANALYSIS ONLY. TURNED.
8.  OPENED OR UNUSED A CAPPED EQUIPMENT DRAIN. (1, 2, 3). IN A CAPPED EQUIPMENT DRAIN. CONTROLLED PLANT CONDITIONS OR ALLOWS FOR IMPROVED OPERATIONS.

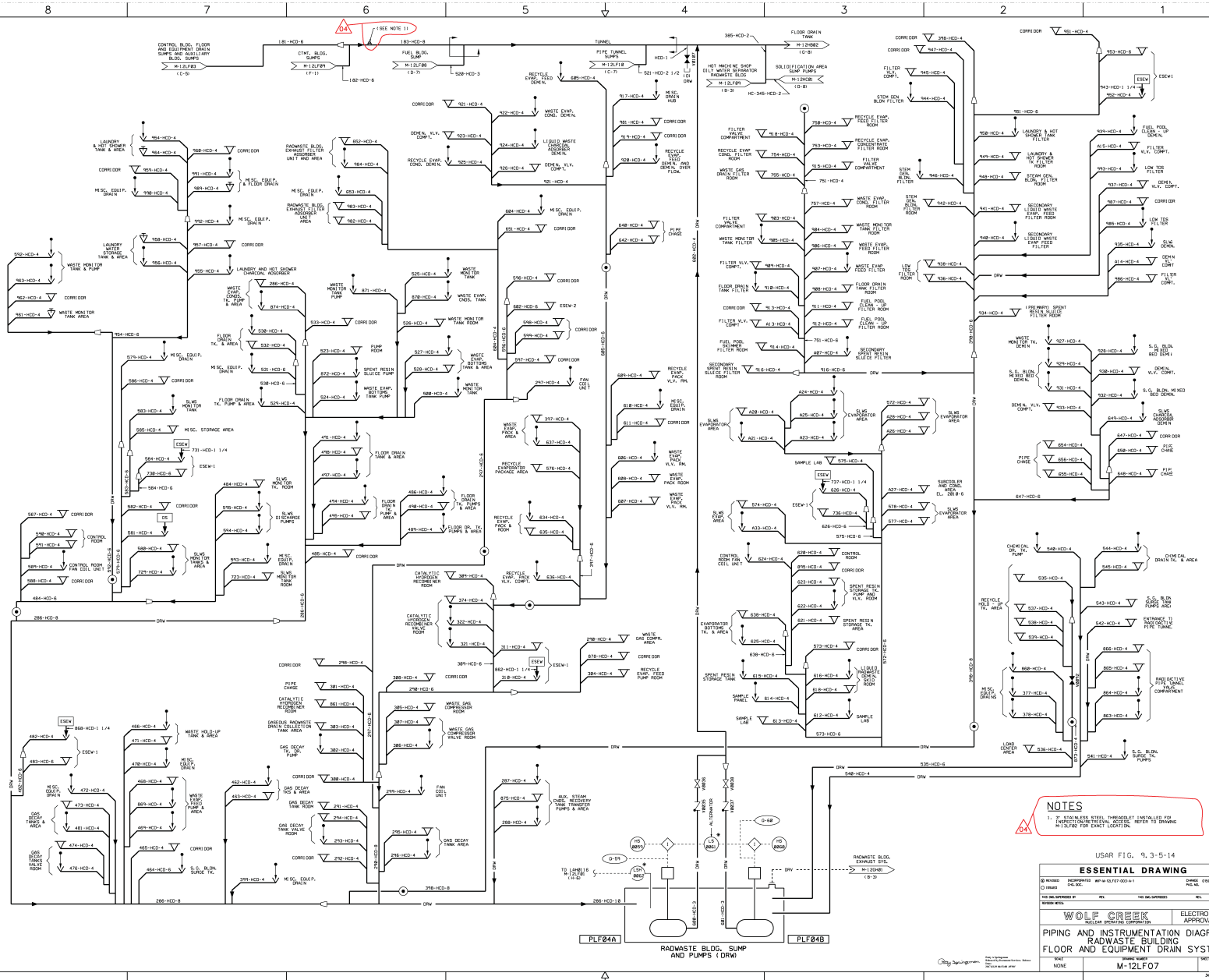
AUXILIARY BUILDING
EQUIPMENT DRAIN SUMP AND PUMPS (CRW)

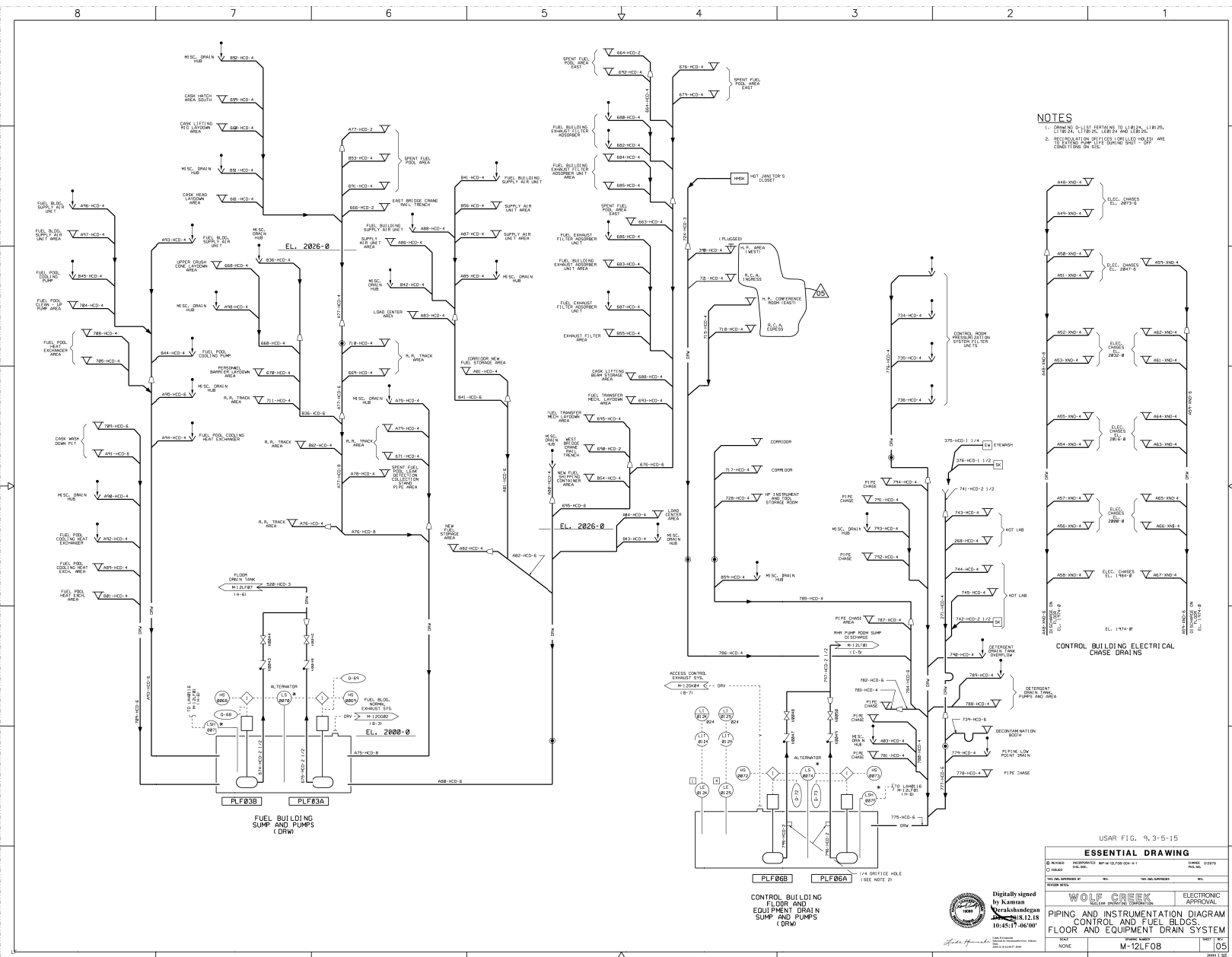
USAR FIG. NO. 9.3-5-12

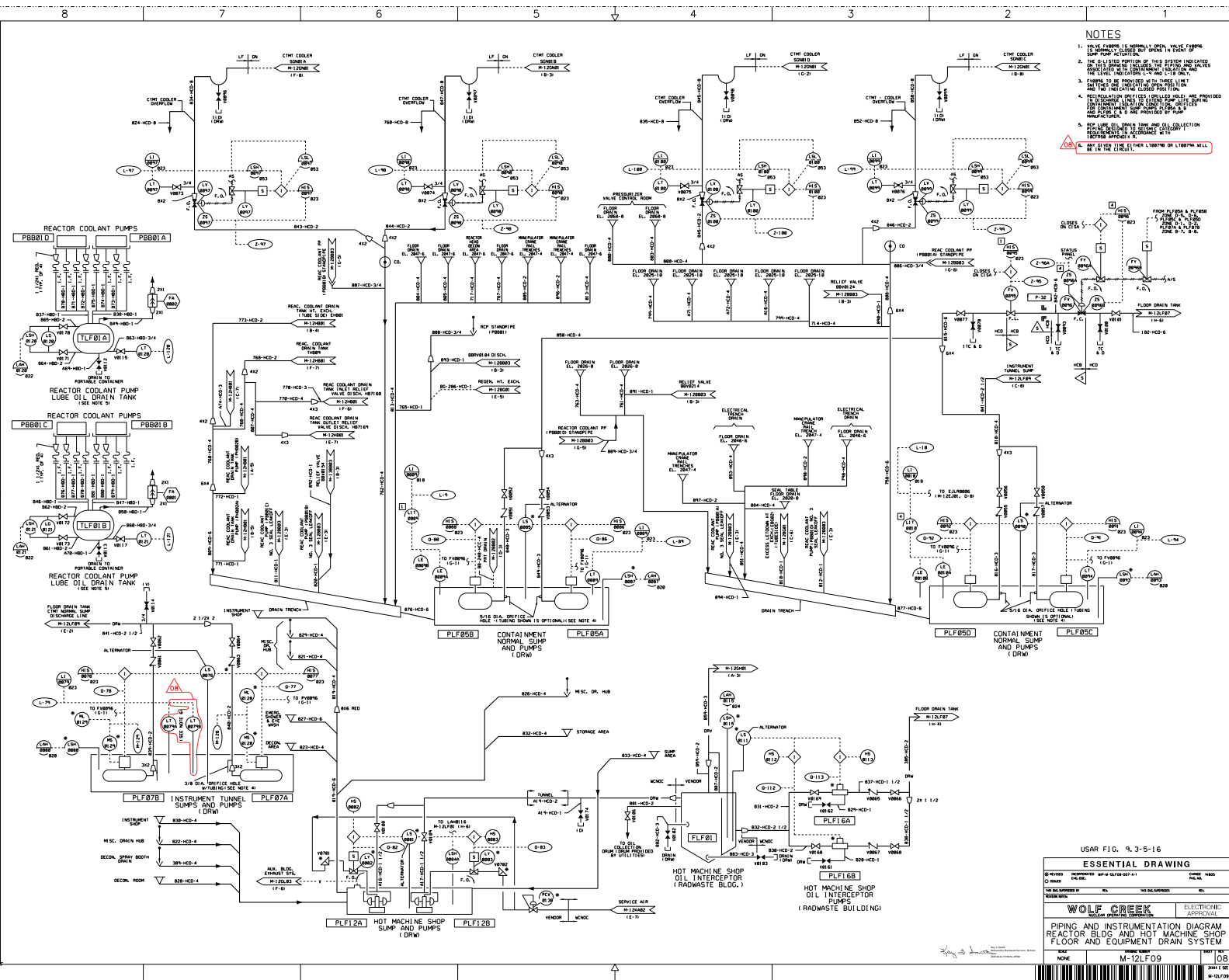
ESSENTIAL DRAWING

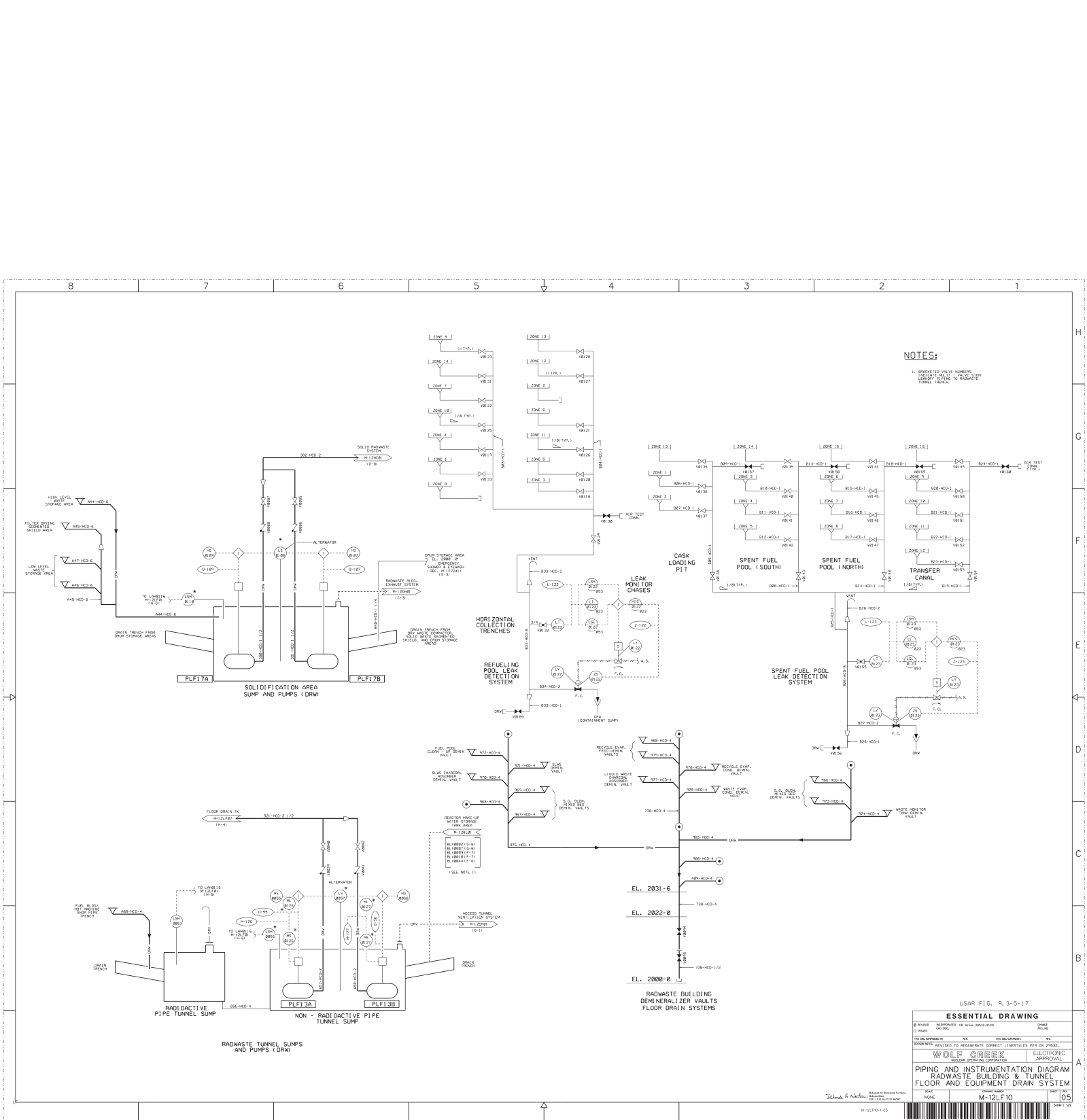
(3) REVIEWED (1) ISSUED		ON APPROVED DATE: 08/15/05	CHECKED: 08/17/05 REVISIONS:
140 DRAWINGS: 00		NO.	THE NO. OF SHEETS: 00
WORKING NAME: WOLF CREEK <small>WOLF CREEK WATER SYSTEM CONSULTING</small>			
PIPING & INSTRUMENTATION DIAGRAM AUXILIARY BUILDING FLOOR & EQUIP. DRAIN SYSTEM			ELECTRONIC APPROVAL
SCALE: NONE	DRAWING NUMBER: M-12L.F05		SHEET

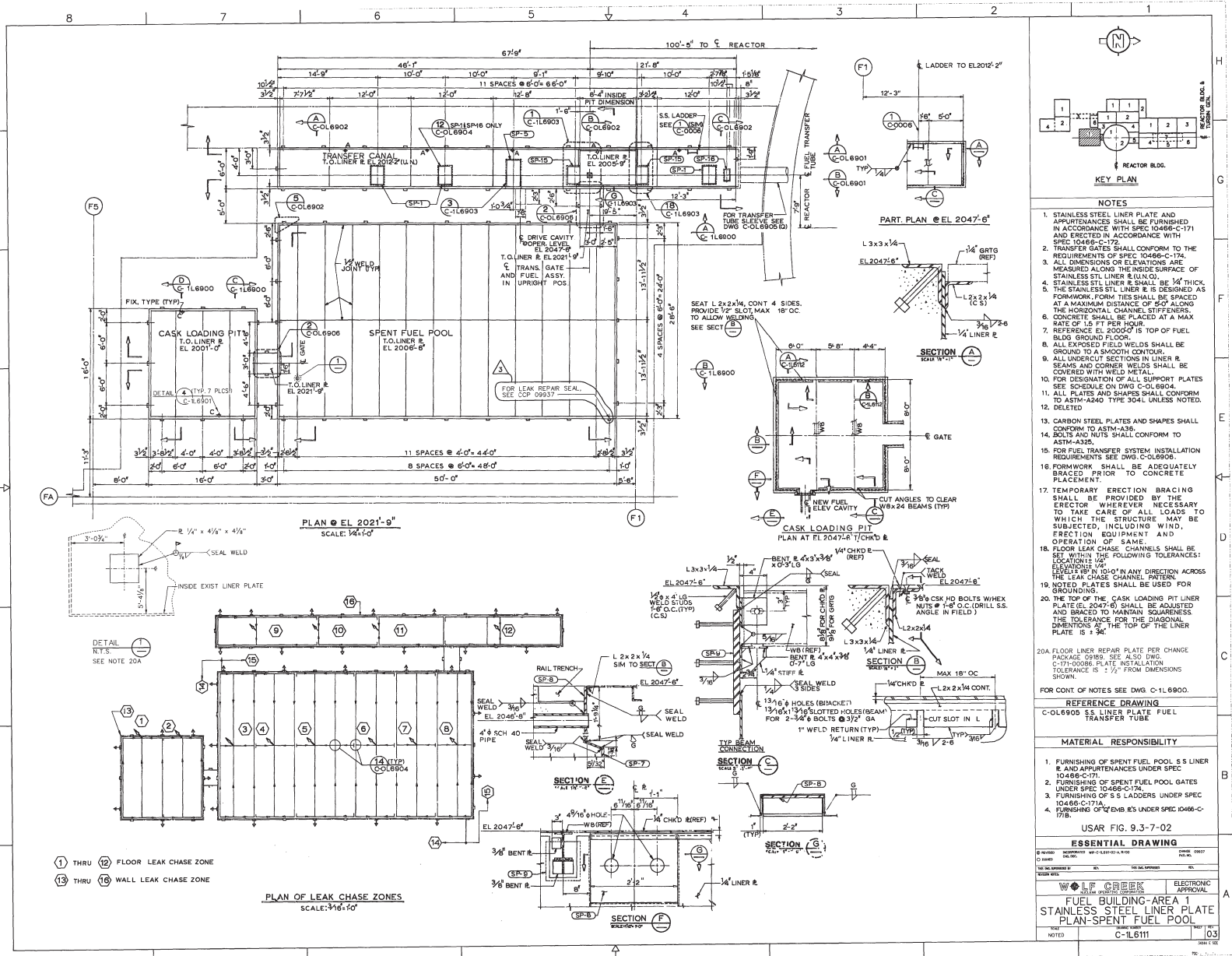
 Perry & Springfield Mechanical/Plumbing/HVAC/Refrigeration 4000 E. 20th St. Ste. 200 Springfield, IL 62761-2020	MAKE NONE	DESIGN NUMBER M-12LF05	SHEET 09
	DATE 08/20/2018		

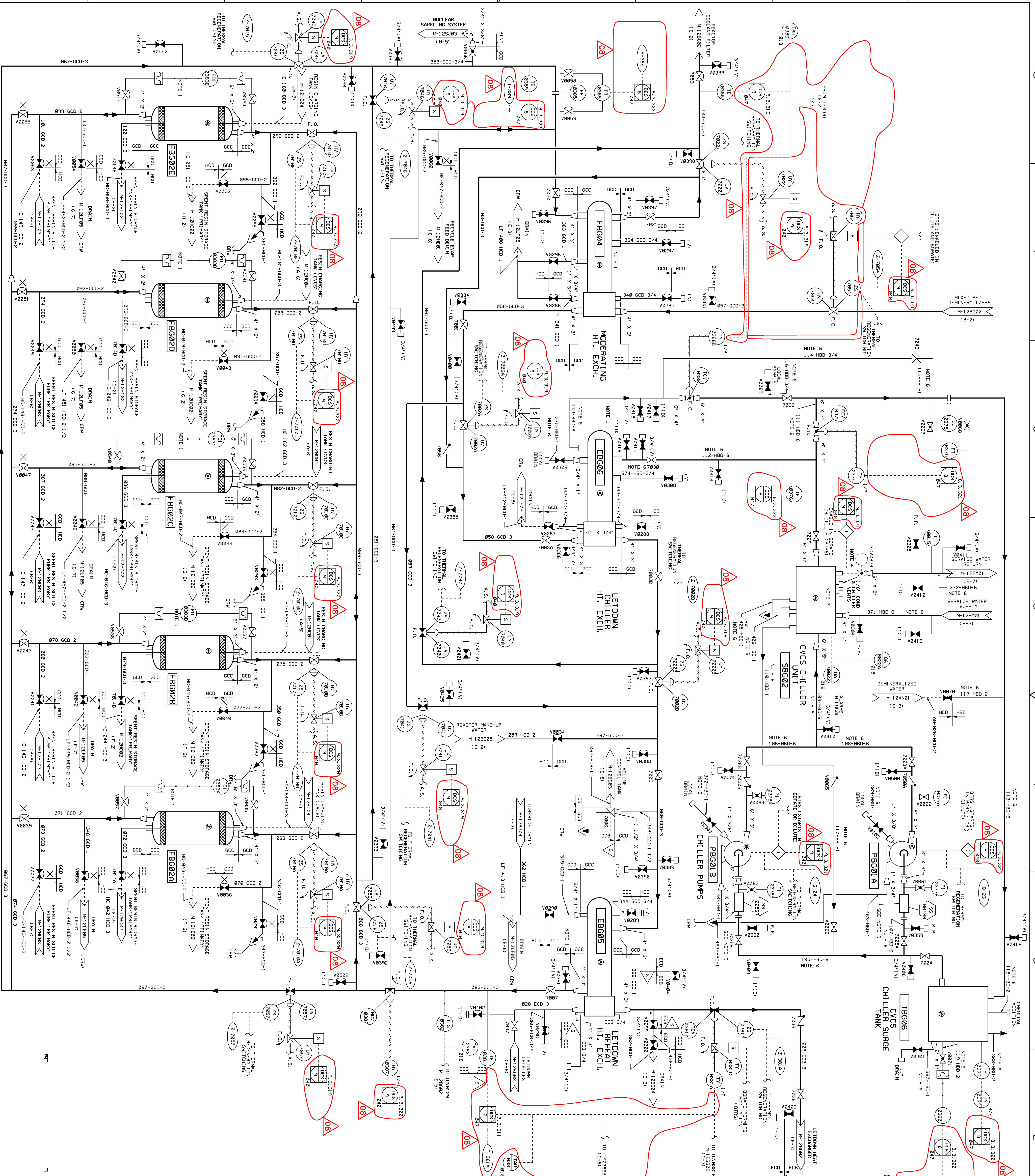












USAR FIG. 9.3-8-04

ESSENTIAL DRAWING

REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUED	01/2021

W. CREK

WATER OPERATING CORPORATION

ENGINEER

W. CREK

WATER OPERATING CORPORATION

APPROVAL

SCALE

1" = 10'

SHEET

08

NOTES

1. THE FOLLOWING STANDARD NOTATIONS ARE USED IN THIS DRAWING:
A. MODERATING HEAT EXCHANGER (SHELL)
B. EXCESS LETDOWN HEAT EXCH. (TUBE)
C. LETDOWN CHILLER HEAT EXCH. (TUBE)
D. MIXED BED DEMINERALIZER
E. MIXED BED DEMINERALIZER
F. CATION BED DEMINERALIZER
G. SHELL OF RAS SYSTEM THAT CONTAINS RADIATIVE FLUIDS AND ARE IDENTIFIED BY DUALITY SYMBOLS (SHELL MEET THE RADIATIVE FLUIDS AND ARE IDENTIFIED BY DUALITY SYMBOLS)
H. INDICATED PORTIONS OF THIS SYSTEM GROUP (INDICATED BY DUALITY SYMBOLS)
I. DELETED
J. REMOVABLE SPEED WITH SPINER RING STRAINER (THERMADISK FOR SHUT-UP)

2. THIS DRAWING IS BASED ON WESTINGHOUSE DRAWING NO. 726-00005 THROUGH 726-00008, SUPPLIED LONG, WITH CHILLER UNIT 726-00009, REFERENCE DRAWING M-12B604.

3. REFER TO NOTES 748 ON M-12B604.

4. INDICATED PORTIONS OF THIS SYSTEM GROUP (INDICATED BY DUALITY SYMBOLS)

5. DELETED

6. DELETED

7. DELETED

8. DELETED

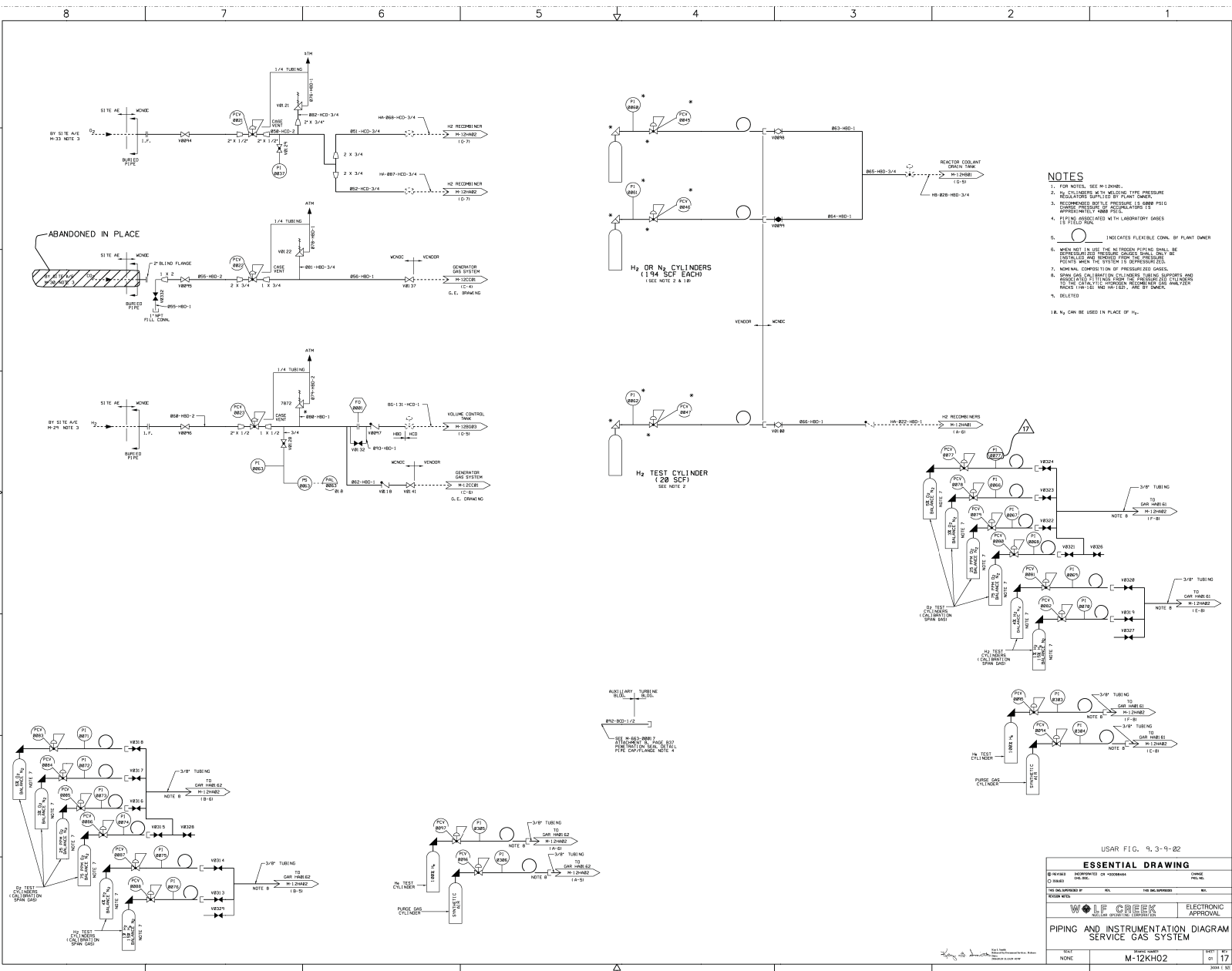
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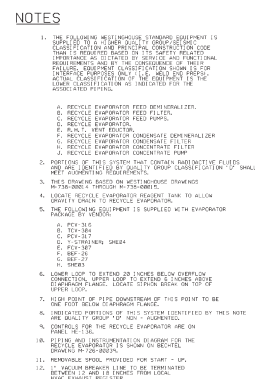
10. DELETED



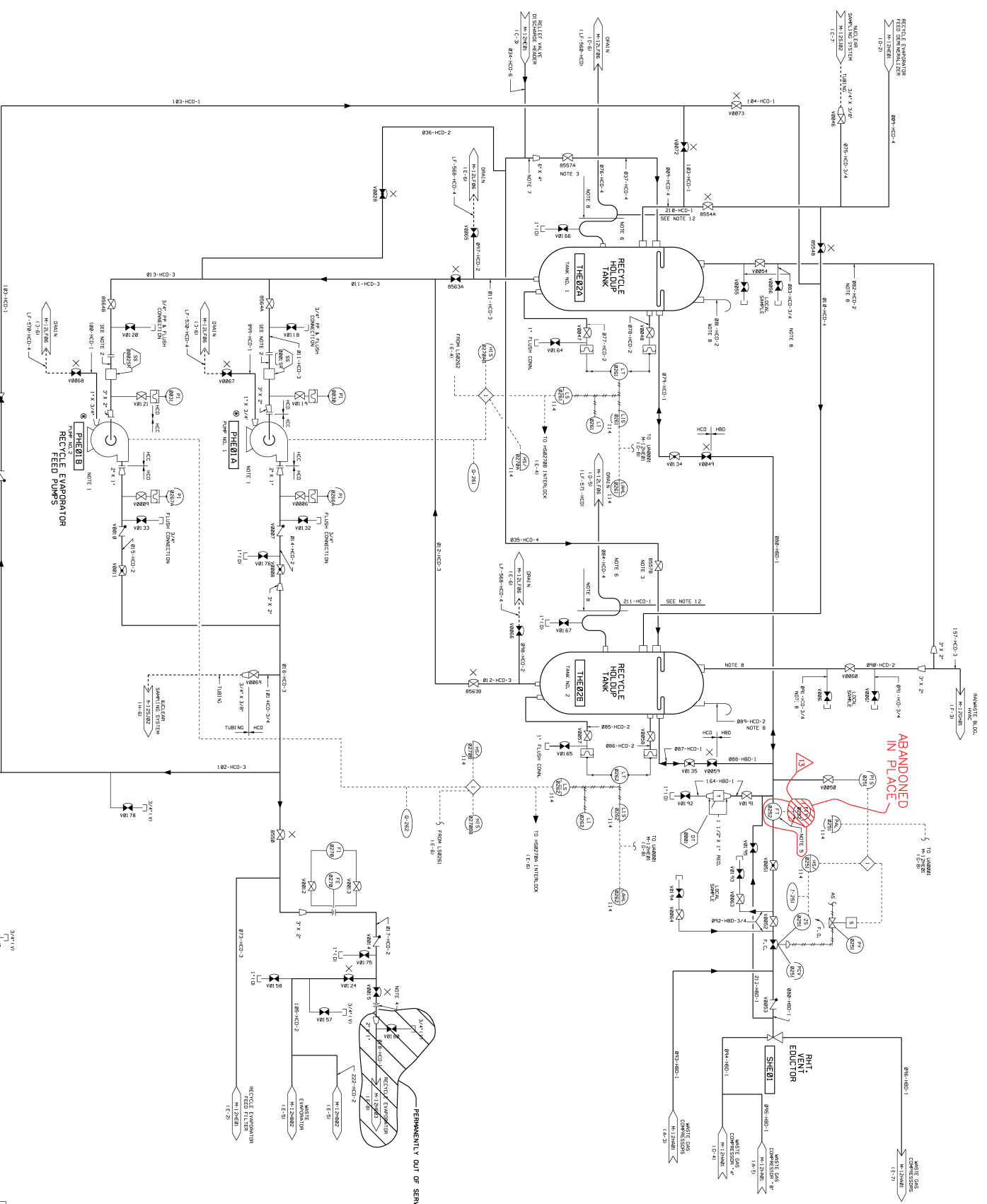
NONE	M-12K
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NONE	M-12KH01
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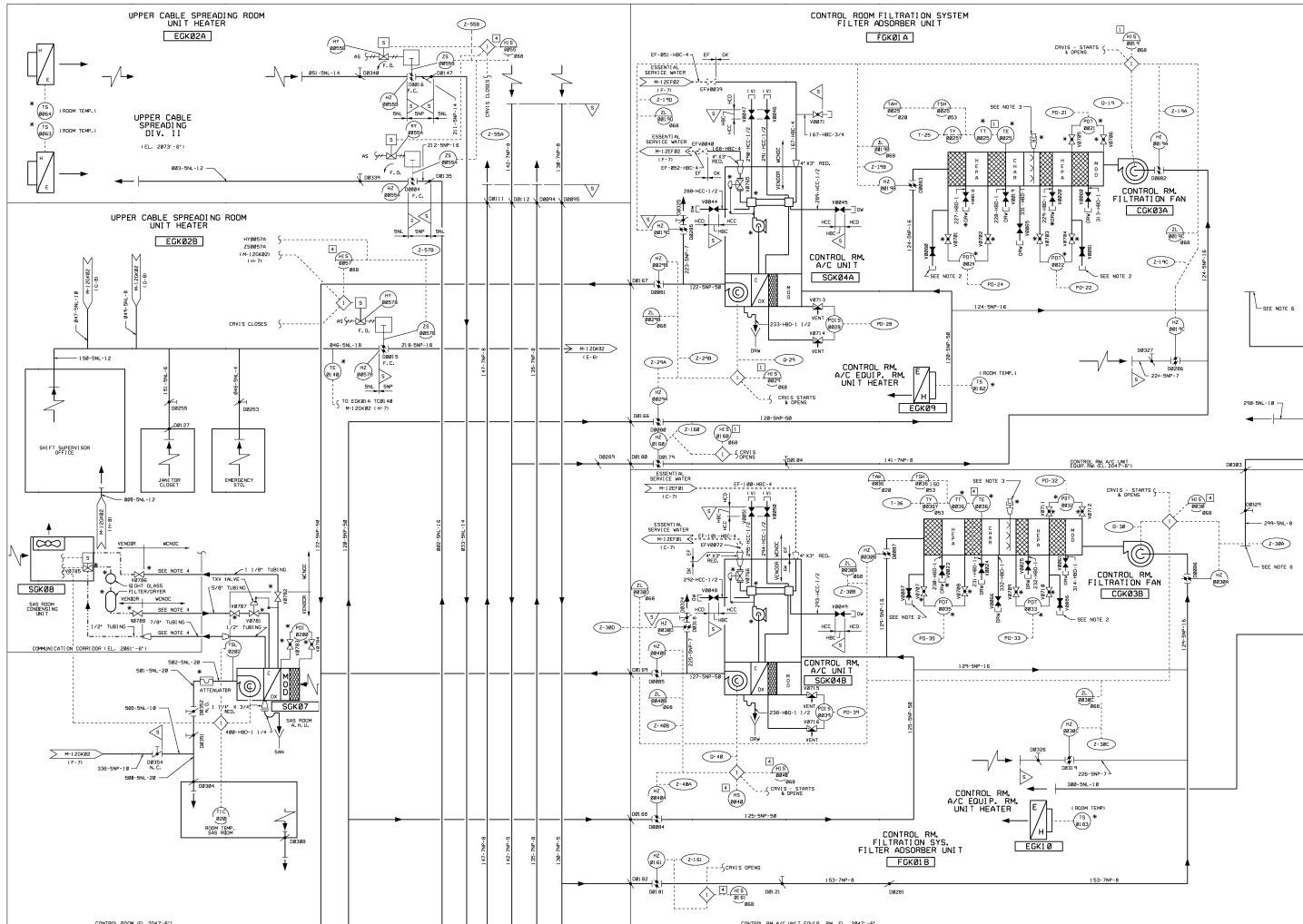


USAR FIG. 9.3-11-01			
ESSENTIAL DRAWING			
<input type="checkbox"/> SCHEDULE <input type="checkbox"/> ISSUED INFORMATION CHANGES			CHANGE NUMBER
PREPARED BY REVIEWED BY	ISSUED BY REVIEWED BY	PREPARED BY REVIEWED BY	ISSUED BY REVIEWED BY
REVISION FOR: AF 85-01-B, SECTION 6.1.6, TABLE 4, TYPE 2			
WOLF CREEK NUCLEAR OPERATING CORPORATION			
PIPING & INSTRUMENTATION DIAGRAM BORON RECYCLE SYSTEM			ELECTRO APPROVAL
DATE NONE	DRAWING NUMBER M-12HE01		SHEET 001



- NOTES**
1. THE SYSTEM IS TO BE ABANDONED IN PLACE.
 2. THE SYSTEM IS TO BE ABANDONED IN PLACE.
 3. THE SYSTEM IS TO BE ABANDONED IN PLACE.
 4. THE SYSTEM IS TO BE ABANDONED IN PLACE.
 5. THE SYSTEM IS TO BE ABANDONED IN PLACE.

USAR FIG. 9.3-11-02	
ESSENTIAL DRAWING	
REVISION	DATE
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100	11/11/02



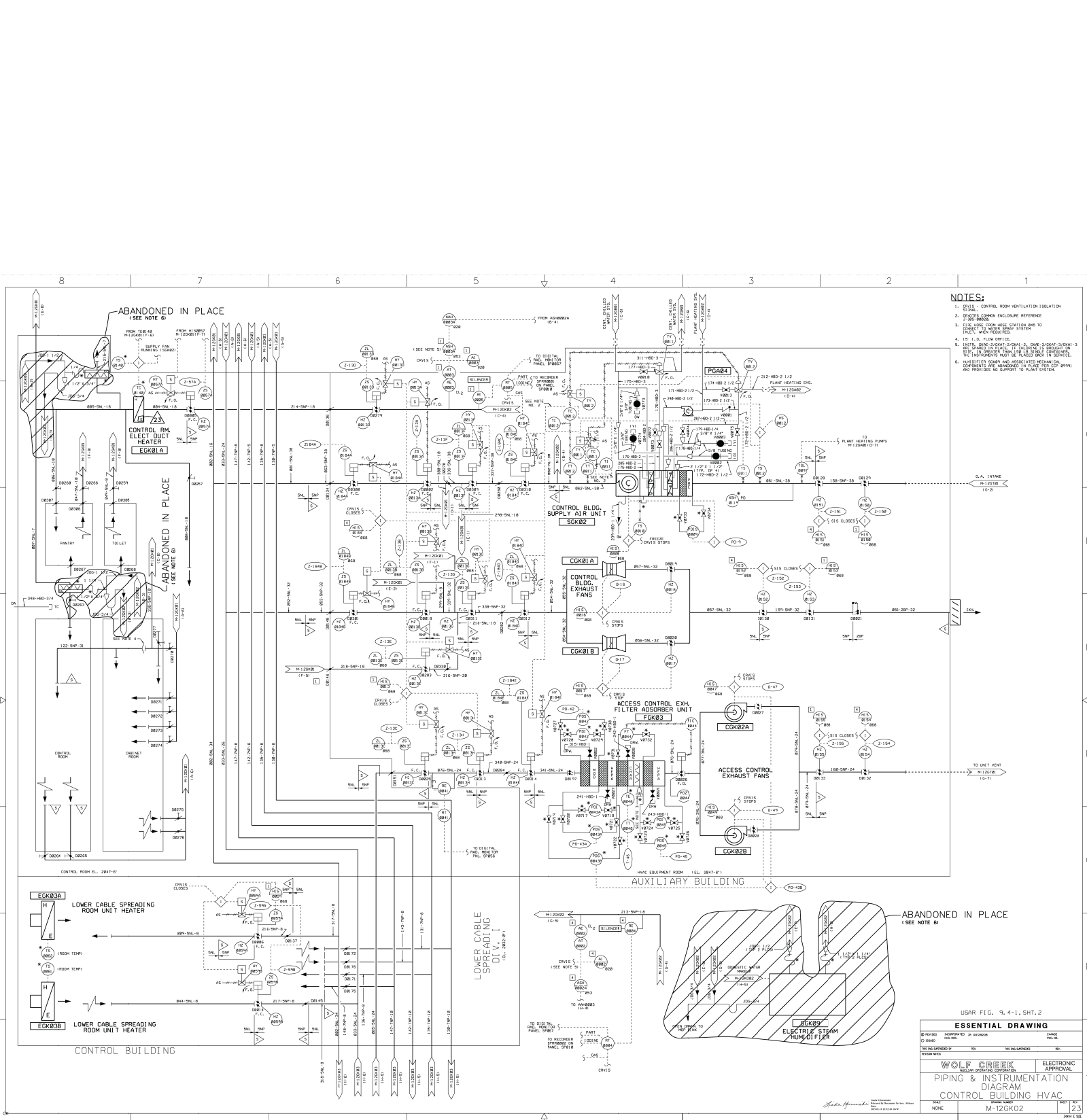
- NOTES**
1. DRIVE 8 - CONTROL ROOM VENTILATION ISOLATION SIGNAL.
 2. CONNECTIONS ARE FOR GROUND SUPPLIED WATER.
 3. FINE SCREEN FROM UPPER STATIONS (AS FOR UNIT FORDAL) SHOULD BE KEPT OPEN TO ALLOW FOR CONNECTION TO WATER SUPPLY.
 4. REFRIGERANT TUBING AND FITTINGS NOT INDICATED ARE TO BE SUPPLIED BY THE USER. THE USER SHALL BE RESPONSIBLE FOR THE TUBING TO BE SUPPLIED AND INSTALLED BY THE USER.
 5. THE INDICATED PORTION OF PIPING REFERENCED TO THIS NOTE SHALL BE PROVIDED FOR AS-SUPPLIED.
 6. PIPING: SIZES, SCHEDULES, AND MATERIALS ARE TO BE DETERMINED BY THE USER. THE USER SHALL BE RESPONSIBLE FOR THE TUBING TO BE SUPPLIED AND INSTALLED BY THE USER.
 7. THE USER SHALL BE RESPONSIBLE FOR THE TUBING TO BE SUPPLIED AND INSTALLED BY THE USER.

USAR FIG. 9, 4-1-01

ESSENTIAL DRAWING

REVISION	DATE	BY	FOR
1	10/1/01	WOLF CREEK	ESSENTIAL DRAWING
2	10/1/01	WOLF CREEK	ESSENTIAL DRAWING
3	10/1/01	WOLF CREEK	ESSENTIAL DRAWING
4	10/1/01	WOLF CREEK	ESSENTIAL DRAWING
5	10/1/01	WOLF CREEK	ESSENTIAL DRAWING
6	10/1/01	WOLF CREEK	ESSENTIAL DRAWING
7	10/1/01	WOLF CREEK	ESSENTIAL DRAWING
8	10/1/01	WOLF CREEK	ESSENTIAL DRAWING
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10	10/1/01	WOLF CREEK	ESSENTIAL DRAWING

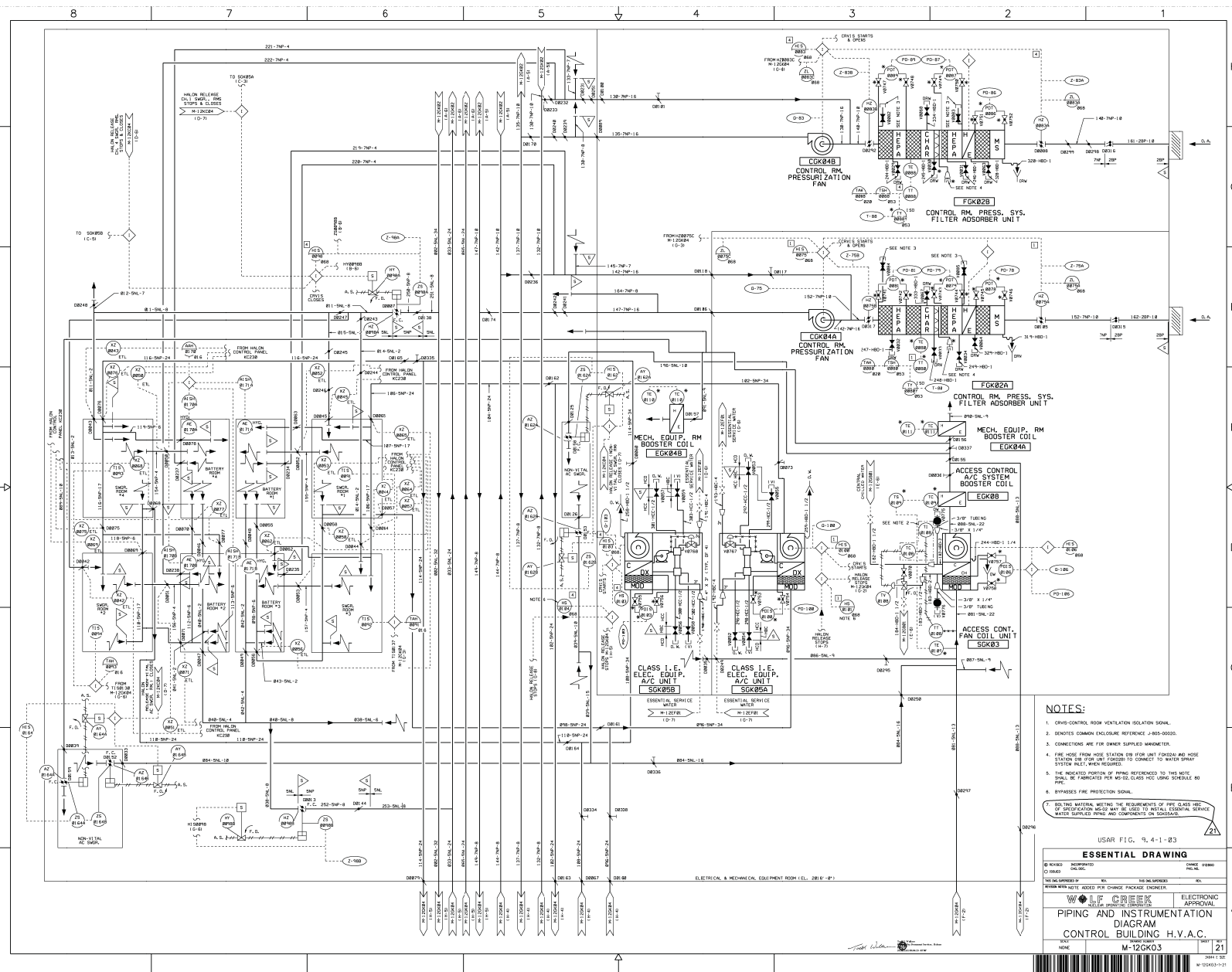
WOLF CREEK
PIPING & INSTRUMENTATION
DIAGRAM
CONTROL BUILDING H.V.A.C.
NAME: M-12GK01
DATE: 10/1/01
PAGE: 14

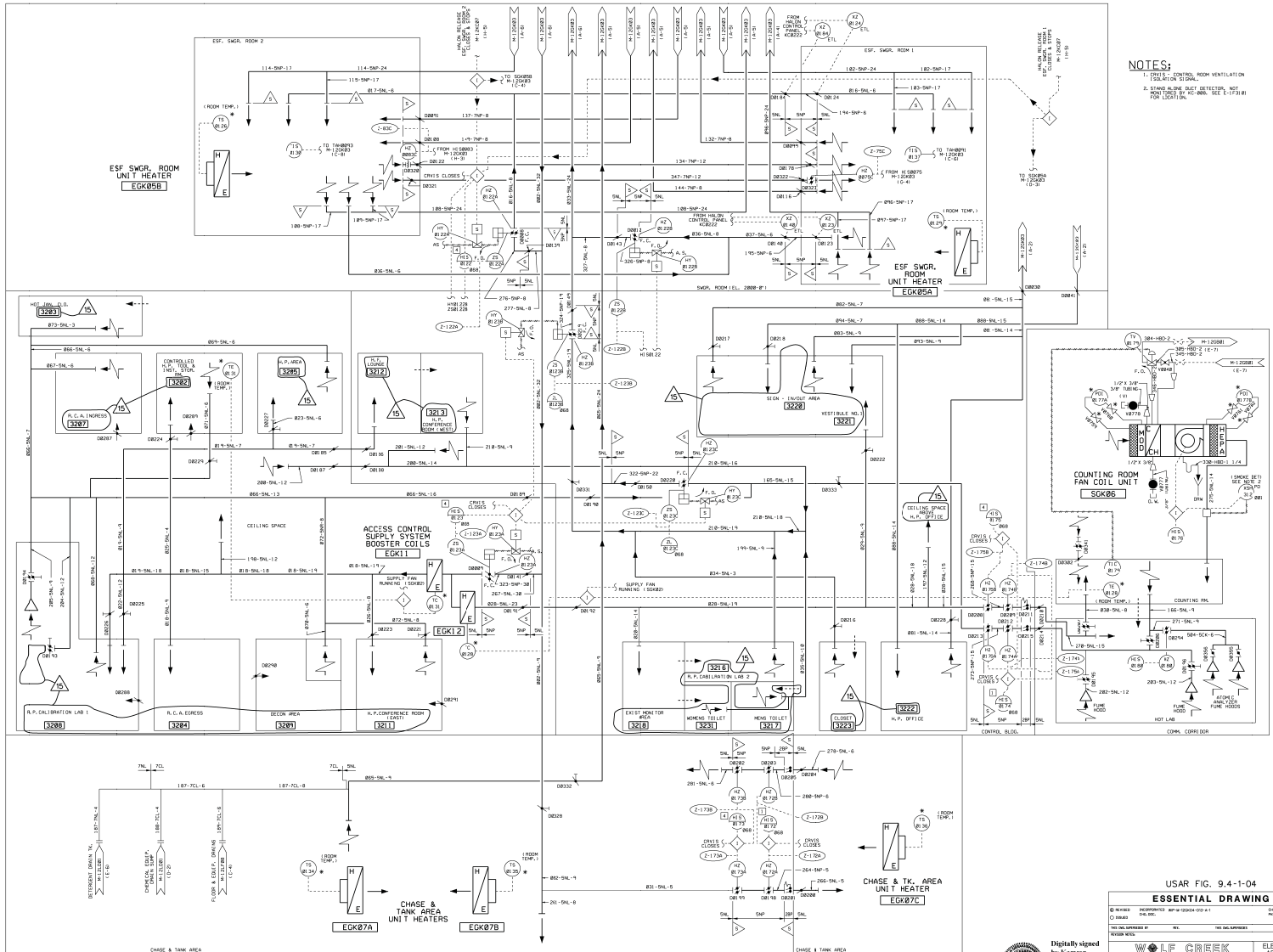


- NOTES:
1. CKK02 - CONTROL ROOM VENTILATION ISOLATION SYSTEM.
 2. CKK02 - CONTROL ROOM VENTILATION ISOLATION SYSTEM.
 3. CKK02 - CONTROL ROOM VENTILATION ISOLATION SYSTEM.
 4. CKK02 - CONTROL ROOM VENTILATION ISOLATION SYSTEM.
 5. CKK02 - CONTROL ROOM VENTILATION ISOLATION SYSTEM.
 6. CKK02 - CONTROL ROOM VENTILATION ISOLATION SYSTEM.

USAR FIG. 9.4-1, SHT.2

ESSENTIAL DRAWING	
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96.0	10/1/00
97.0	10/1/00
98.0	10/1/00
99.0	10/1/00
100.0	10/1/00





NOTES:
1. CONTROL ROOM VENTILATION SYSTEM IS SHOWN.
2. STANDING ALONE TEST DETECTION, NOT FOR LOCATION.

USAR FIG. 9.4-1-04
ESSENTIAL DRAWING

NO. 1000000000	NO. 1000000000	NO. 1000000000	NO. 1000000000
NO. 1000000000	NO. 1000000000	NO. 1000000000	NO. 1000000000
NO. 1000000000	NO. 1000000000	NO. 1000000000	NO. 1000000000
NO. 1000000000	NO. 1000000000	NO. 1000000000	NO. 1000000000

WOLF CREEK
PIPING AND INSTRUMENTATION
DIAGRAM CONTROL
BUILDING H.V.A.C.

Digitally signed by Kamran Voraahandegan
DN: cn=Kamran Voraahandegan, o=USAR, ou=USAR, email=Kamran.Voraahandegan@usar.mil, c=US

DATE: 10/31/2018 10:37:57 -06'00'

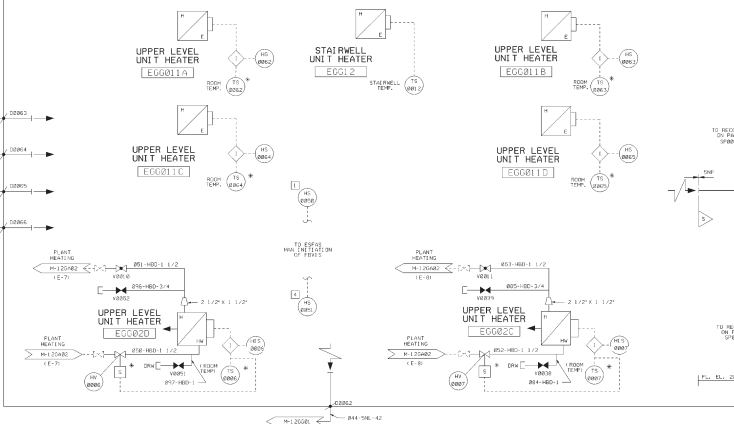
TEST: NONE

DATE: 10/31/2018 10:37:57 -06'00'

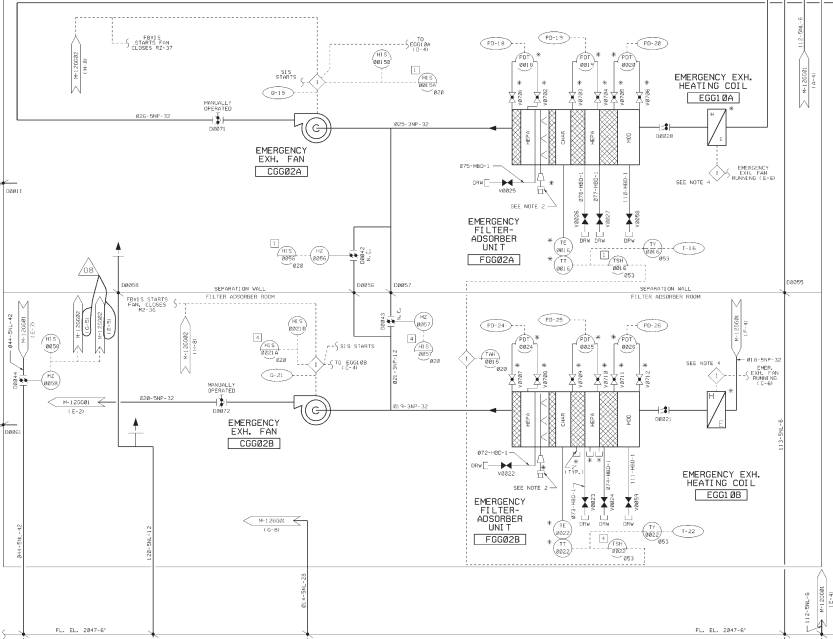
DATE: 10/31/2018 10:37:57 -06'00'

DATE: 10/31/2018 10:37:57 -06'00'

SPENT FUEL POOL AREA



EMERGENCY EXHAUST FILTER ADSORBER ROOM



NOTES:

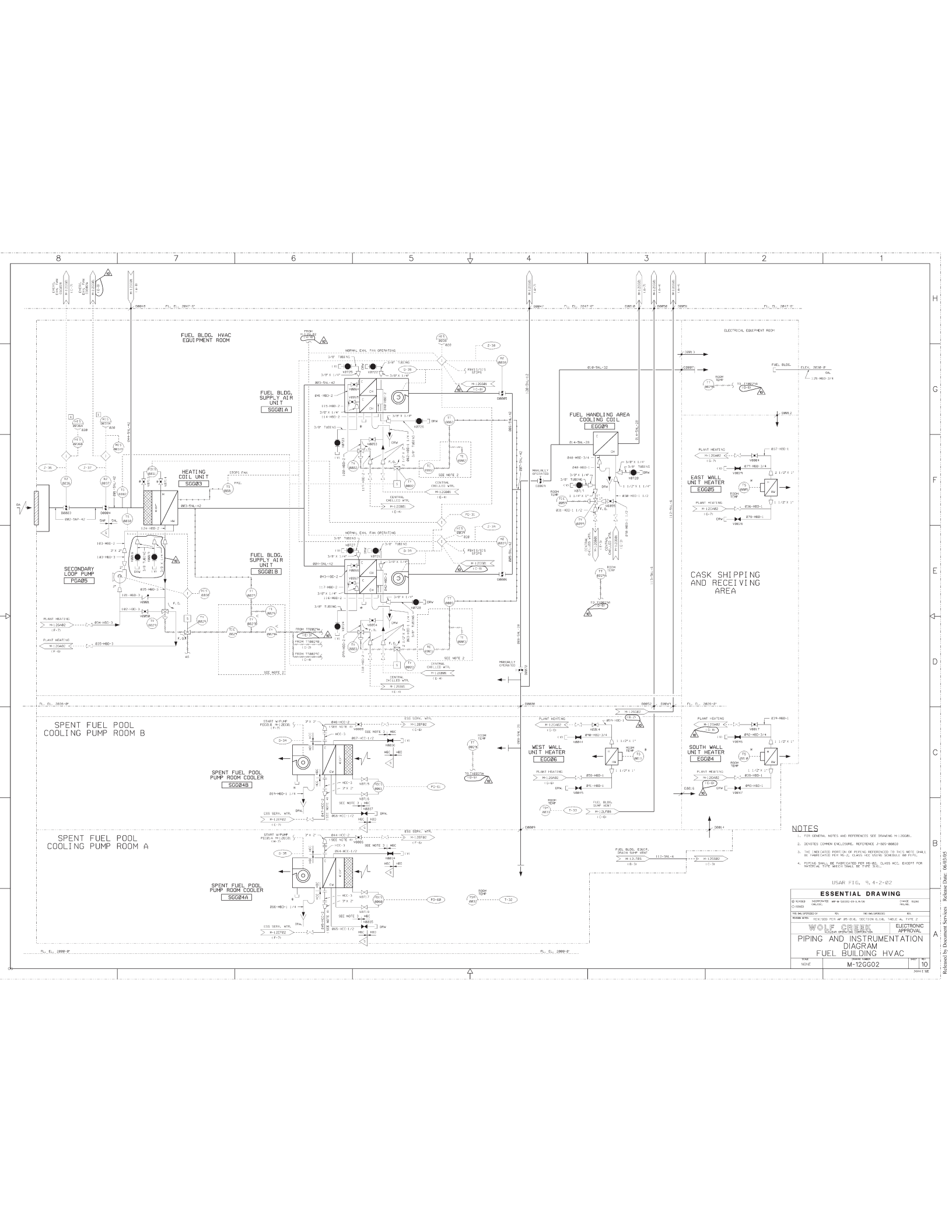
1. OUTLINE OF THE DRAWING IS EQUIVALENT TO THE
2. THE DRAWING IS THE PROPERTY OF THE COMPANY AND IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.
3. THE DRAWING IS THE PROPERTY OF THE COMPANY AND IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.
4. THE DRAWING IS THE PROPERTY OF THE COMPANY AND IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.

USAR F1G. 4-2-01

ESSENTIAL DRAWING

NO.	DATE	BY	CHKD.	APPD.	REVISION
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3	10/10/01	WOLF CREEK	WOLF CREEK	WOLF CREEK	WOLF CREEK
4	10/10/01	WOLF CREEK	WOLF CREEK	WOLF CREEK	WOLF CREEK
5	10/10/01	WOLF CREEK	WOLF CREEK	WOLF CREEK	WOLF CREEK
6	10/10/01	WOLF CREEK	WOLF CREEK	WOLF CREEK	WOLF CREEK
7	10/10/01	WOLF CREEK	WOLF CREEK	WOLF CREEK	WOLF CREEK
8	10/10/01	WOLF CREEK	WOLF CREEK	WOLF CREEK	WOLF CREEK
9	10/10/01	WOLF CREEK	WOLF CREEK	WOLF CREEK	WOLF CREEK
10	10/10/01	WOLF CREEK	WOLF CREEK	WOLF CREEK	WOLF CREEK

WOLF CREEK
PIPING AND INSTRUMENTATION
DIAGRAM
FUEL BUILDING HVAC
M-12GG01

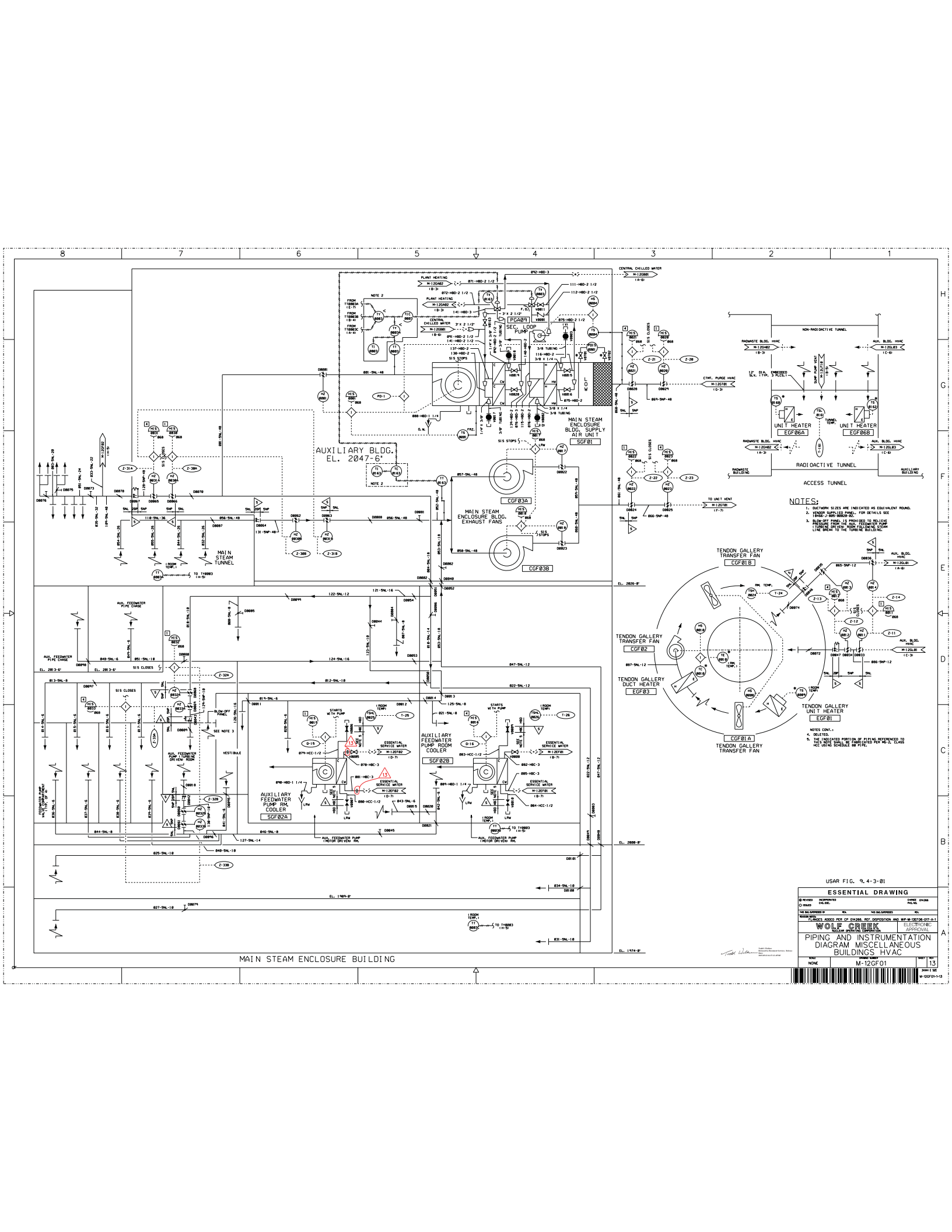


NOTES

- 1. FOR GENERAL NOTES AND REFERENCES SEE DRAWING M-12GG02.
- 2. DEVOTES COMMON ENCLOSURE. REFERENCE J-BOP-W000.
- 3. THE INDICATED POINT OF AIR PRESSURE MEASUREMENT TO THIS NOTE SHALL BE INDICATED FOR THE PLANT AND THE INDICATED POINT SHALL BE INDICATED FOR THE PLANT AND THE INDICATED POINT SHALL BE INDICATED FOR THE PLANT.
- 4. PLANT SHALL BE PORTFOLIOED BY THE PLANT, CLASS HCC, EXCEPT FOR MATERIAL, TYPE, SIZE, AND THE TYPE OF THE PLANT.

USAR FIG. 9, 4-2-02

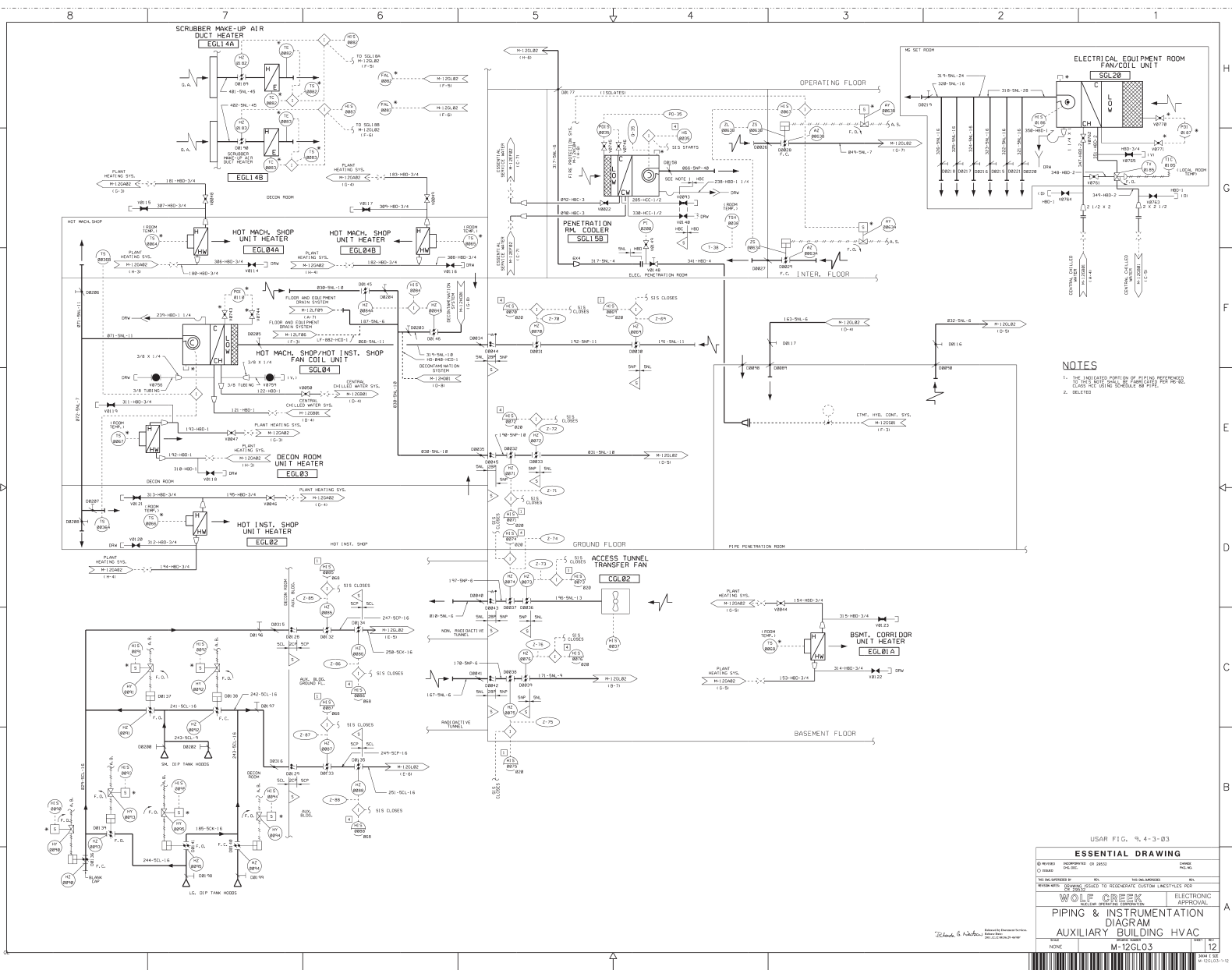
ESSENTIAL DRAWING			
DESIGNED	MODIFIED	BY	DATE
12/08/02	12/08/02	12/08/02	12/08/02
REVIEWED	REVIEWED	REVIEWED	REVIEWED
12/08/02	12/08/02	12/08/02	12/08/02
WOLF CREEK ELECTRONIC APPROVAL			
PIPING AND INSTRUMENTATION			
DIAGRAM			
FUEL BUILDING HVAC			
DATE	12/08/02	10	10
NAME	M-12GG02	10	10

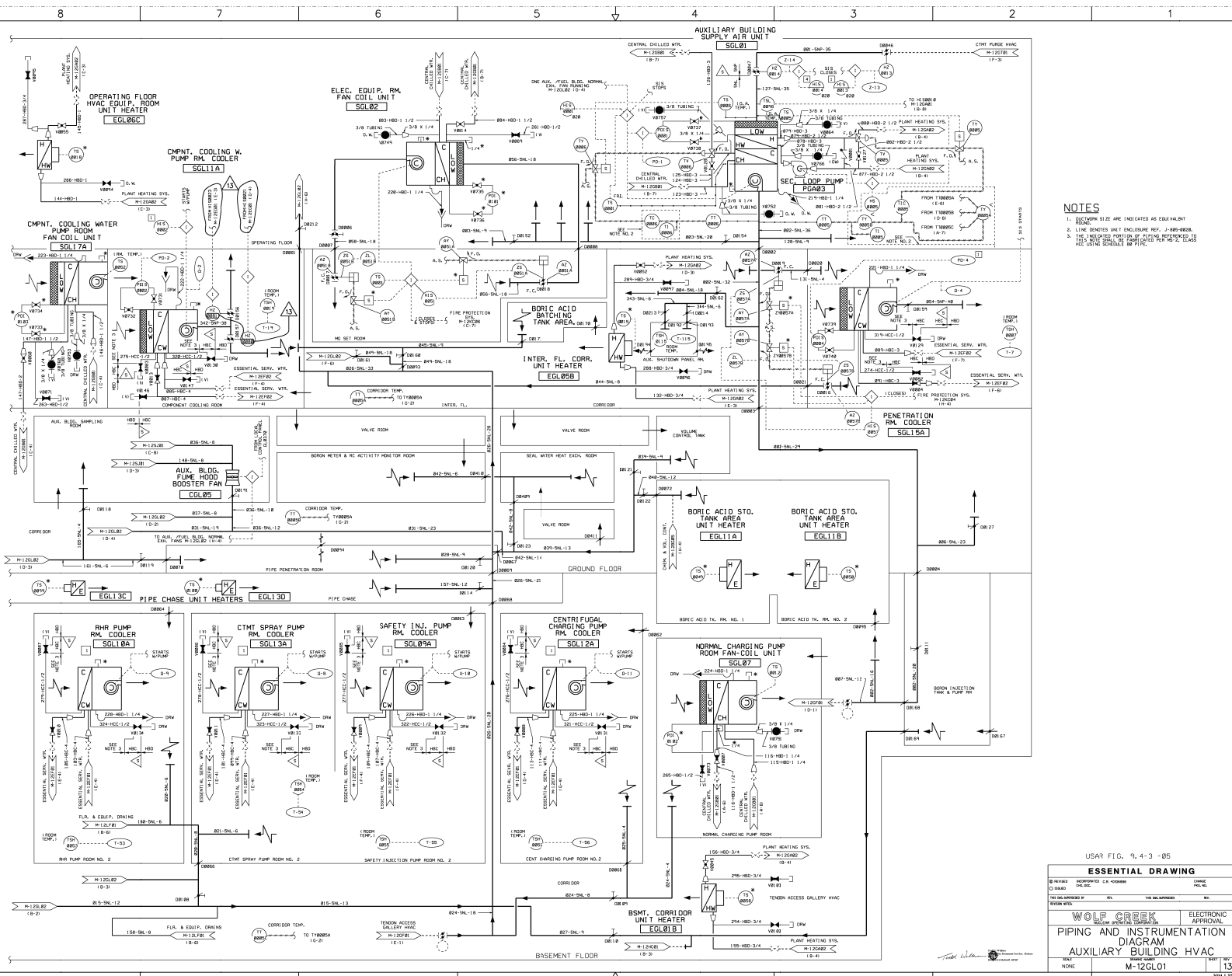




1. DUCTWORK SIZES ARE INDICATED AS EQUIVALENT ROUND.

USAR FIG. 9, 4-3-02			
ESSENTIAL DRAWING			
<input checked="" type="checkbox"/> RECORDED	<input checked="" type="checkbox"/> INDEXED	<input checked="" type="checkbox"/> MICROFILMED	<input checked="" type="checkbox"/> CHANGED
FIG. 10A, SUPPLEMENTED BY		FIG. 10B, SUPPLEMENTED BY	
REVISION NOTES		REVISED FOR AF-85-018, SECTION 4, E.B. TABLE A, TYPE 2	
WOLF CREEK		ELECTRONIC APPROVAL	
NUCLEAR OPERATING INFORMATION			
PIPING & INSTRUMENTATION DIAGRAM			
MISCELLANEOUS BUILDINGS HVAC			
SCALE	DRAWING NUMBER		DATE
NONE	M-12GF02		02
			DAIRY C 202





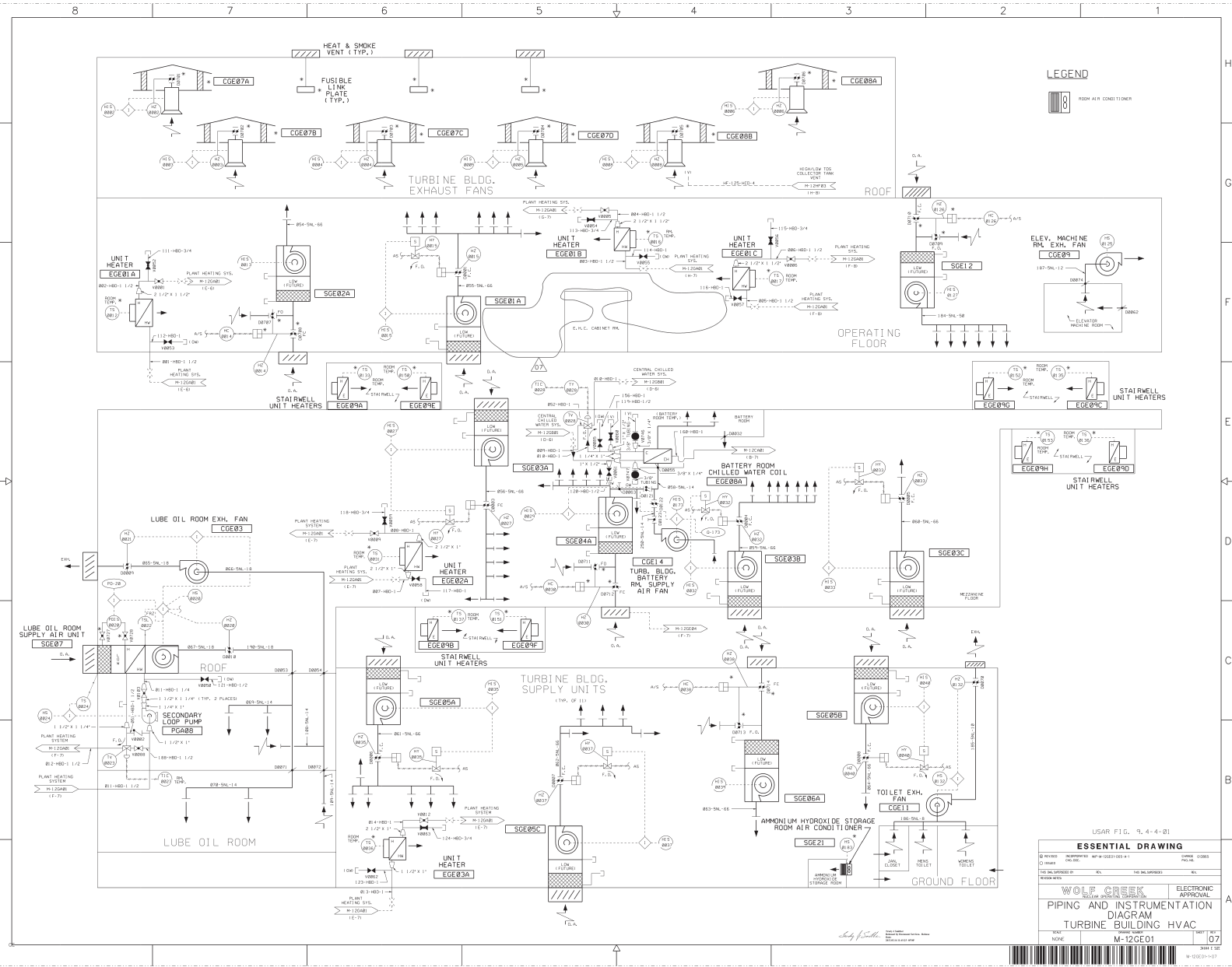
NOTES

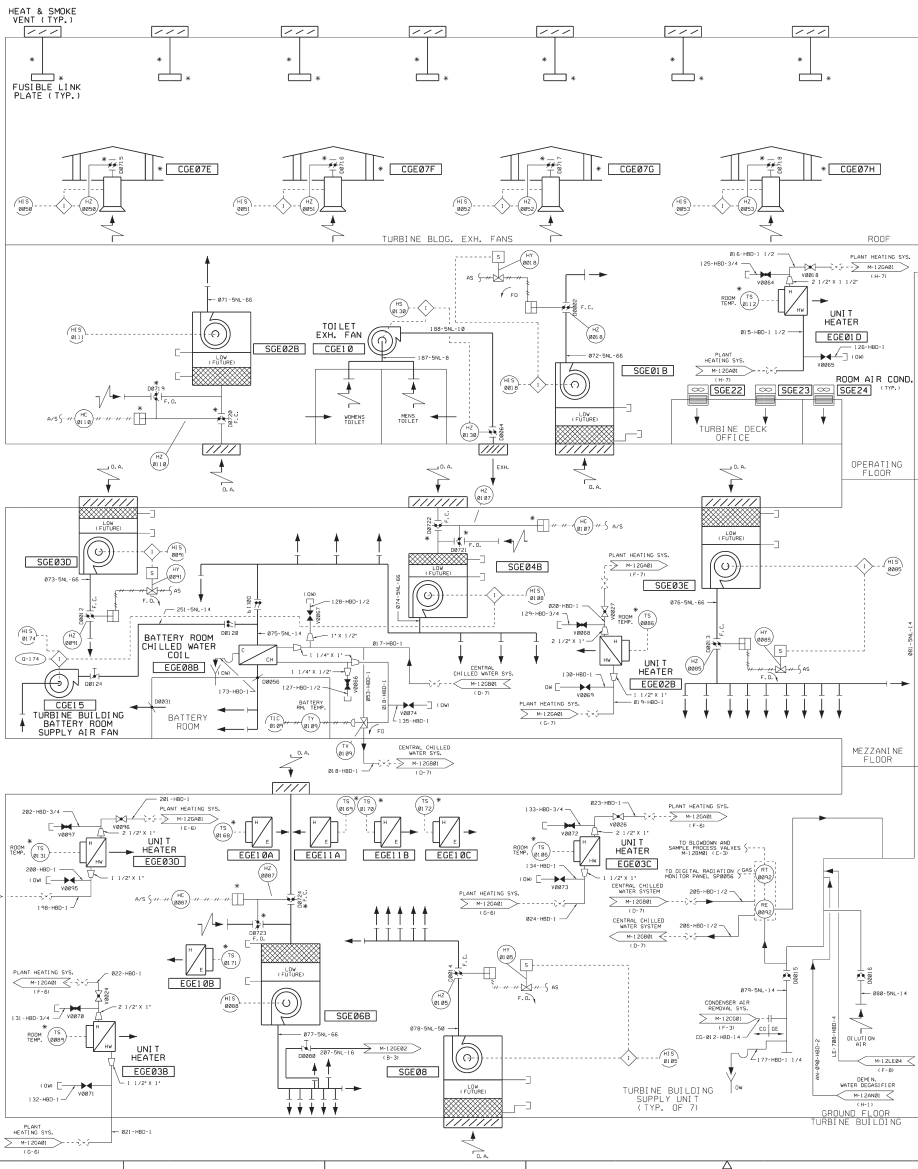
1. DUCTWORK SIZE ARE INDICATED AS EQUIVALENT ROUND.
2. LINE DENOTES UNIT ENCLOSURE REF. J-885-0828.
3. THE INDICATED PORTION OF PIPING REFERENCED TO THIS NOTE SHALL BE FABRICATED PER MS-2, CLASS 1500, LINE 150000000.

USAR FIG. 9.4-3 -05

ESSENTIAL DRAWING

① REVISED ② ISSUED THE DEVELOPED BY REVIEWED BY		INFORMATIONED C.R. 1000000 DCL CODE REV. THE DATE APPROVED REV.		CHANGE FILE NO.	
WOLF CREEK <small>222-348 020001 000 000</small>			ELECTRONIC APPROVAL		
PIPING AND INSTRUMENTATION DIAGRAM AUXILIARY BUILDING HVAC					
NAME NONE	DRAWING NUMBER M-12GL01			SHEET 13	REV





NOTES:

1. INSTRUMENT VALVES, FITTINGS AND OTHER EQUIPMENT TO BE PROVIDED BY THE CONTRACTOR.
2. 15" WATER SPRAY SYSTEM TAIL.
3. ATOMIC ABSORPTION SPECTROMETER PROVIDED BY OWNER.

CONDENSER AIR REMOVAL FILTRATION SYSTEM

AUXILIARY BUILDING

PROCESS SAMPLING LAB

USAR FIG. 9.4-4-82

ESSENTIAL DRAWING

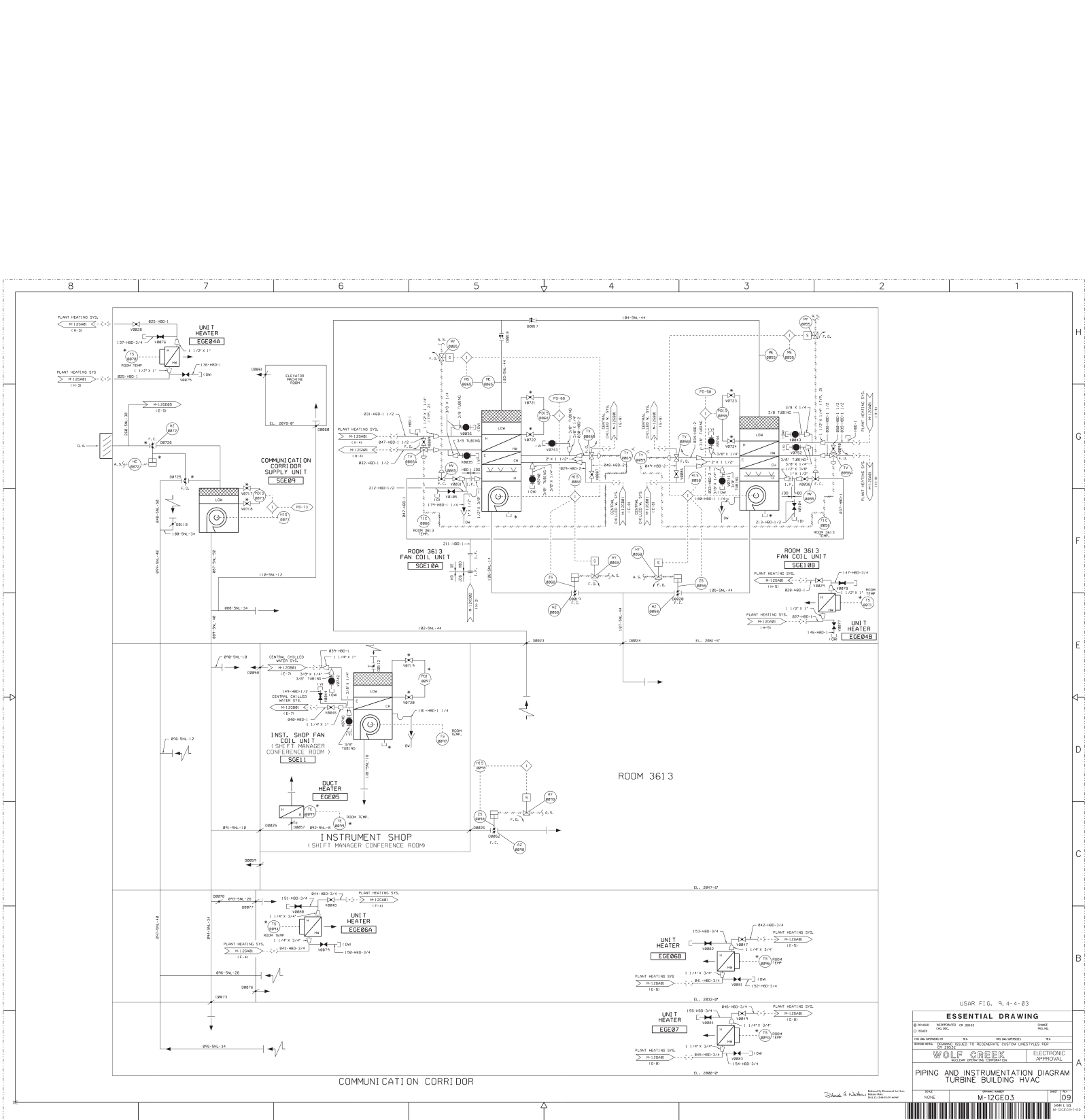
WOLF CREEK ELECTRONIC

PIPING AND INSTRUMENTATION

TURBINE BUILDING HVAC

DATE: 09

BY: 09



USAR FIG. 9, 4-4-B3

ESSENTIAL DRAWING

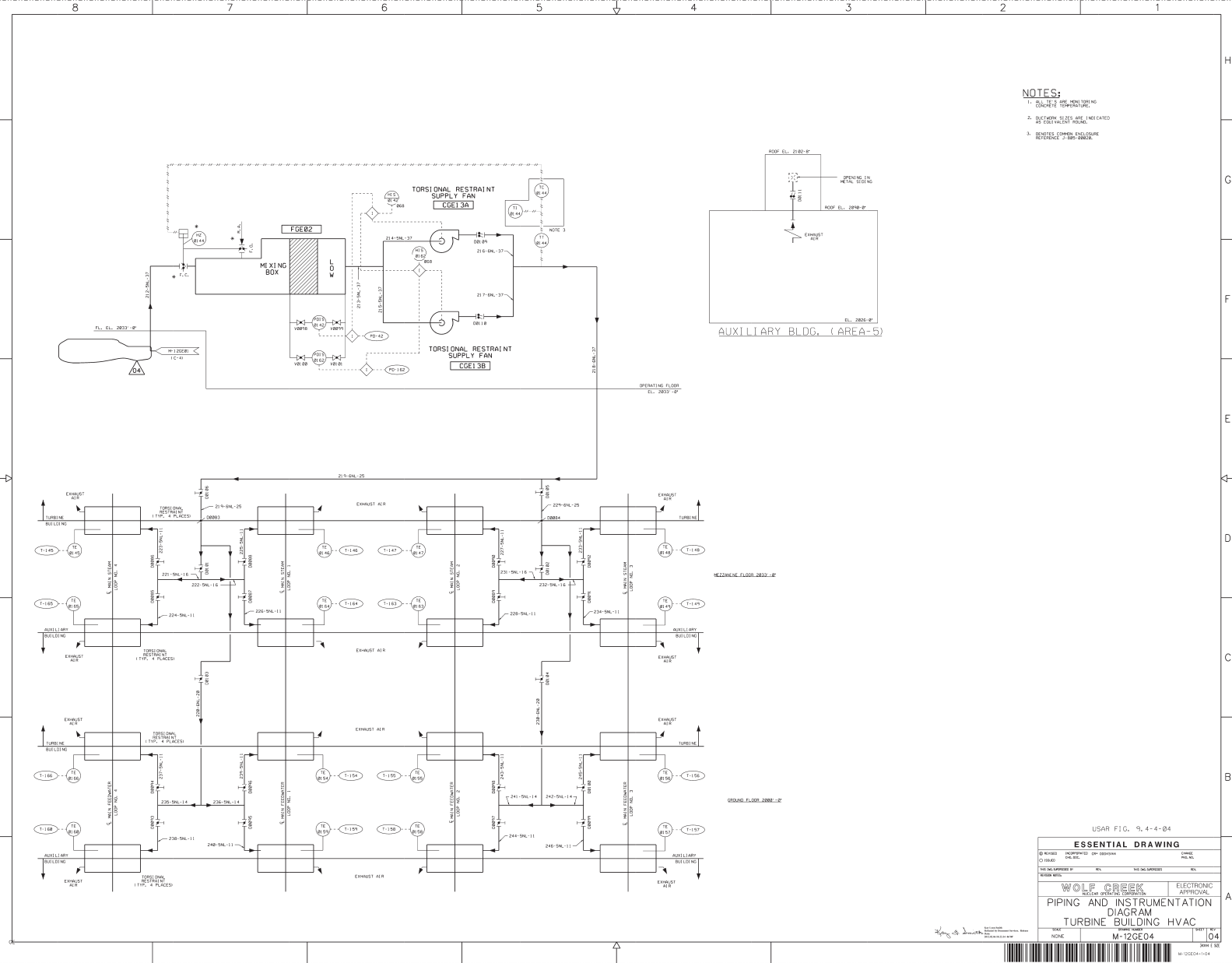
DESIGNED	APPROVED	DATE	BY
10/10/00	10/10/00	10/10/00	10/10/00

WOLF CREEK ELECTRONIC APPROVAL

PIPING AND INSTRUMENTATION DIAGRAM
TURBINE BUILDING HVAC

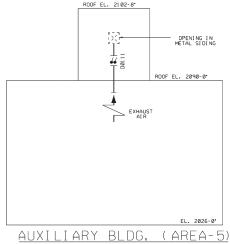
DATE: 10/10/00
BY: M-12GE03
09

10/10/00

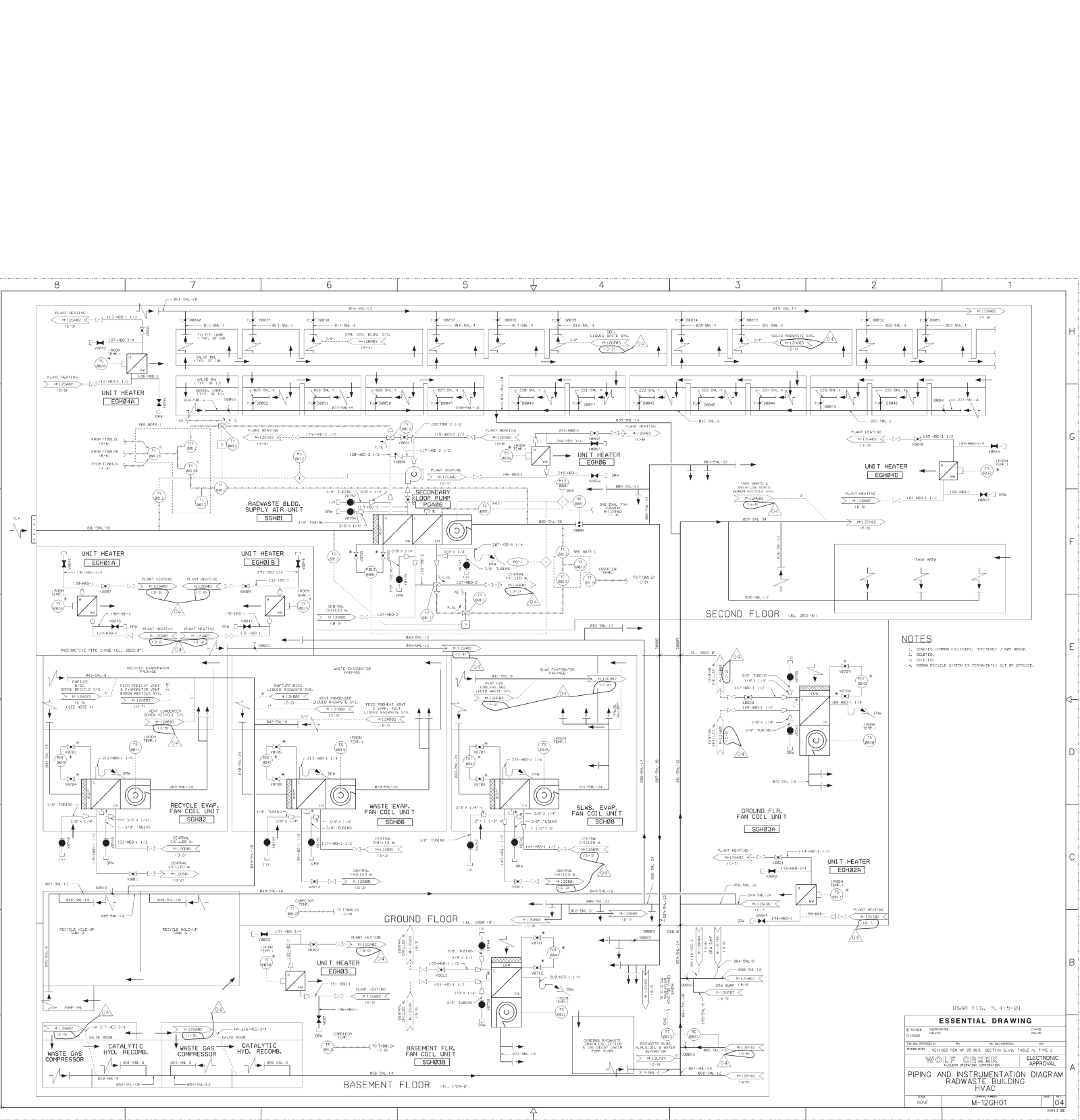


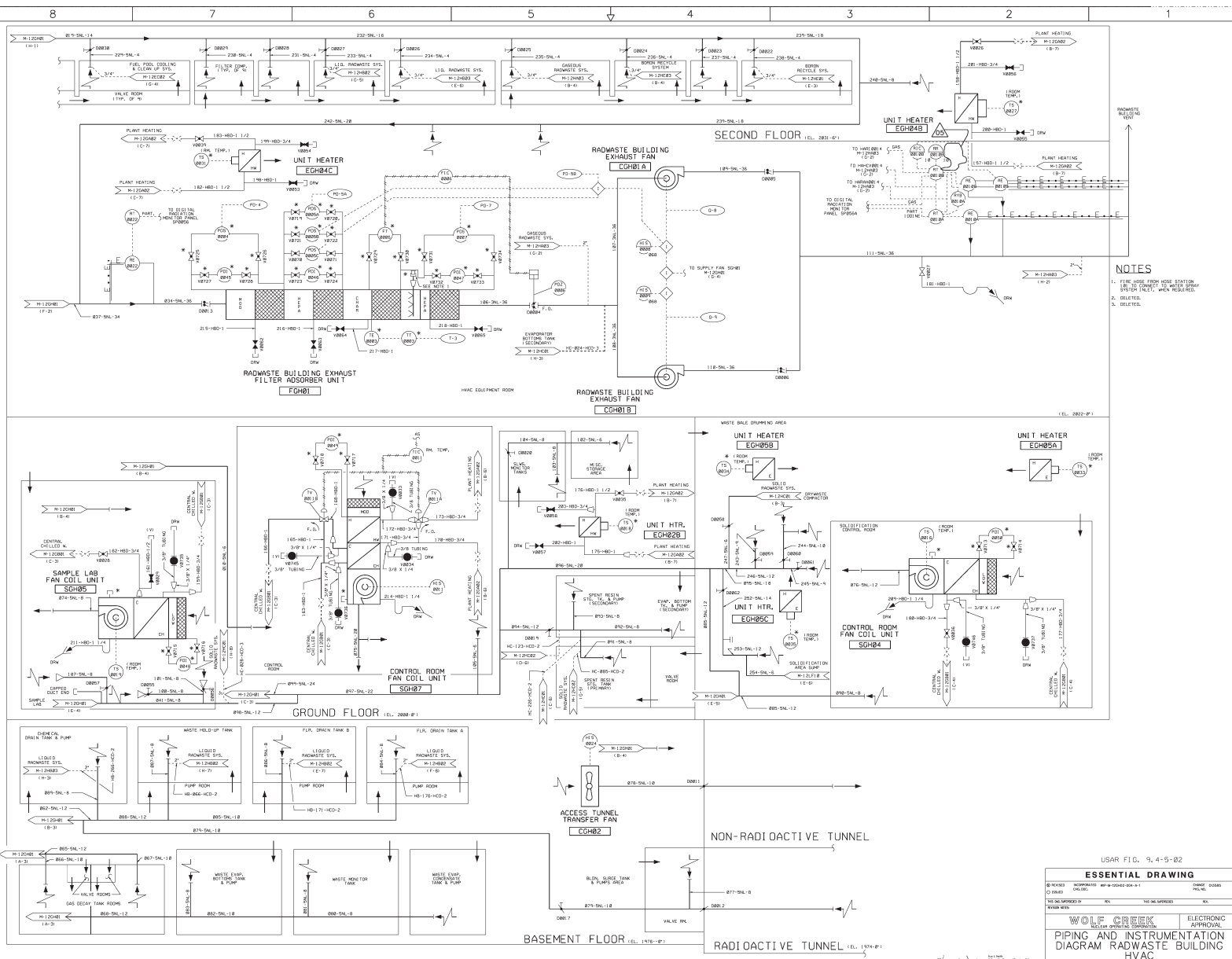
NOTES:

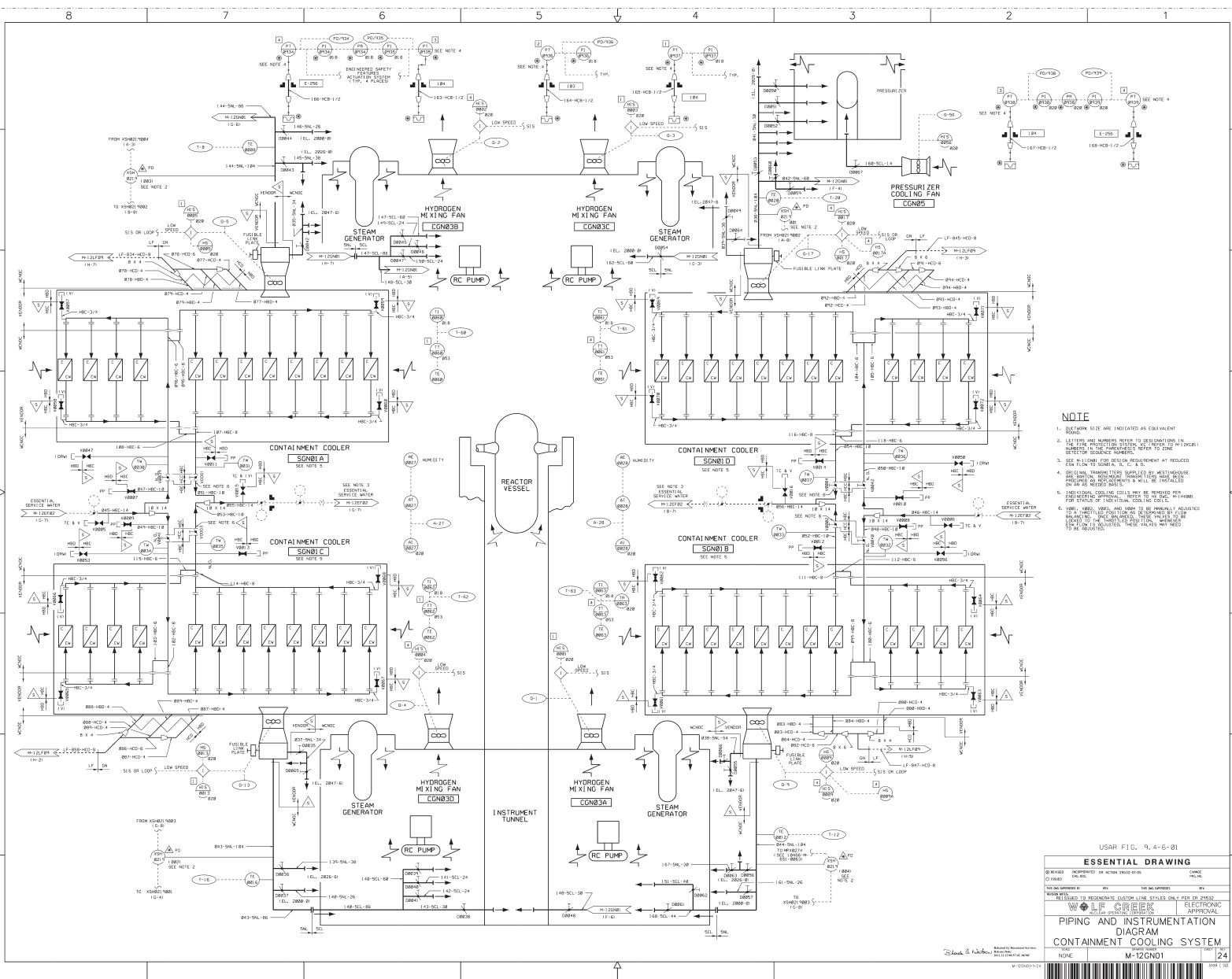
- 1. ALL DUCTS ARE 100% INSULATED TO PREVENT CONDENSATION.
- 2. DUCTWORK IS TO BE 100% INSULATED TO PREVENT CONDENSATION.
- 3. DUCTWORK IS TO BE 100% INSULATED TO PREVENT CONDENSATION.

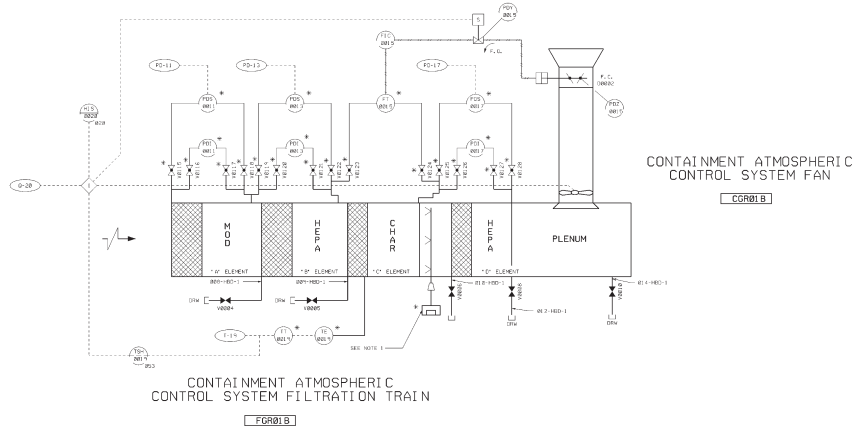


USAR FIG. 9, 4-4-04			
ESSENTIAL DRAWING			
DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY
WOLF CREEK	WOLF CREEK	WOLF CREEK	WOLF CREEK
PIPING AND INSTRUMENTATION		ELECTRONIC APPROVAL	
DIAGRAM		APPROVAL	
TURBINE BUILDING HVAC		APPROVAL	
M-12GE04		APPROVAL	
04		04	
04		04	



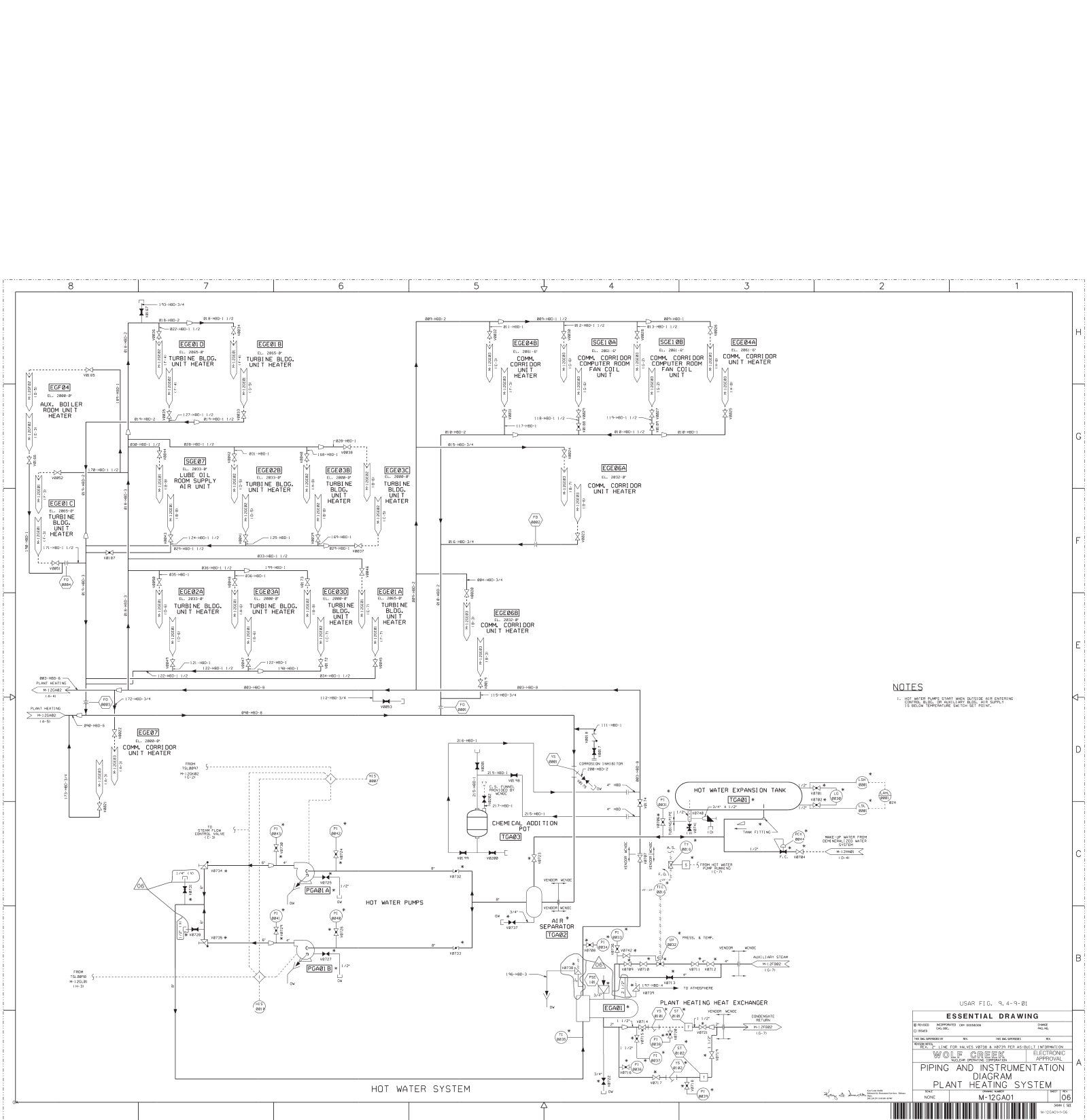






USAR FIG. 9.4-6-03			
ESSENTIAL DRAWING			
REVISION	DISCONTINUED ONE SIDE	CHANGE	FILE NO.
ISSUED			
FIG NO	NO.	NO. (NO. SUPPLEMENT)	NO. (NO. REV.)
ELECTRONICALLY CONVERTED PER AP 05-012			
WOLF CREEK		ELECTRONIC APPROVAL	
WOLF CREEK OILFIELD, CALIFORNIA			
PIPING & INSTRUMENTATION DIAGRAM			
CONTAINMENT ATMOSPHERIC			
CONTROL SYSTEM			
SCALE	DRAWING NUMBER	SHEET	TOTAL
NONE	M-12GR01		0





NOTES
1. HOT WATER PUMPS START WHEN OUTSIDE AIR ENTERING CONTROL BUILDING OR AUXILIARY BUILDING SUPPLY IS 55 BELOW TEMPERATURE SWITCH SET POINT.

USAR FIG. 9, 4-9-81

ESSENTIAL DRAWING

REVISION	APPROVED	DATE
1	WOLF CREEK	10/1/81

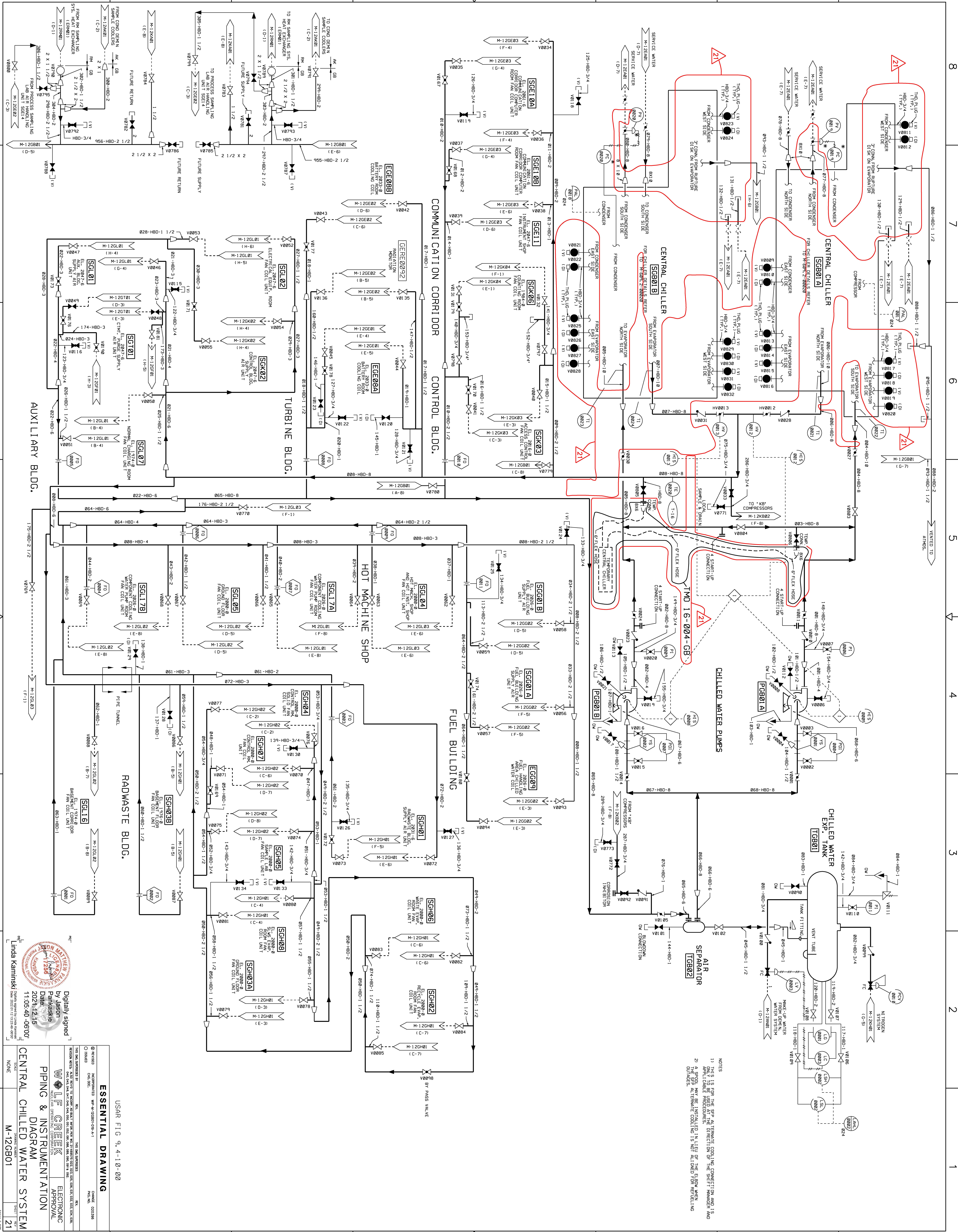
WOLF CREEK ELECTRONIC
SCALE PIPING CORPORATION

PIPING AND INSTRUMENTATION
DIAGRAM
PLANT HEATING SYSTEM

W-12GA01

06



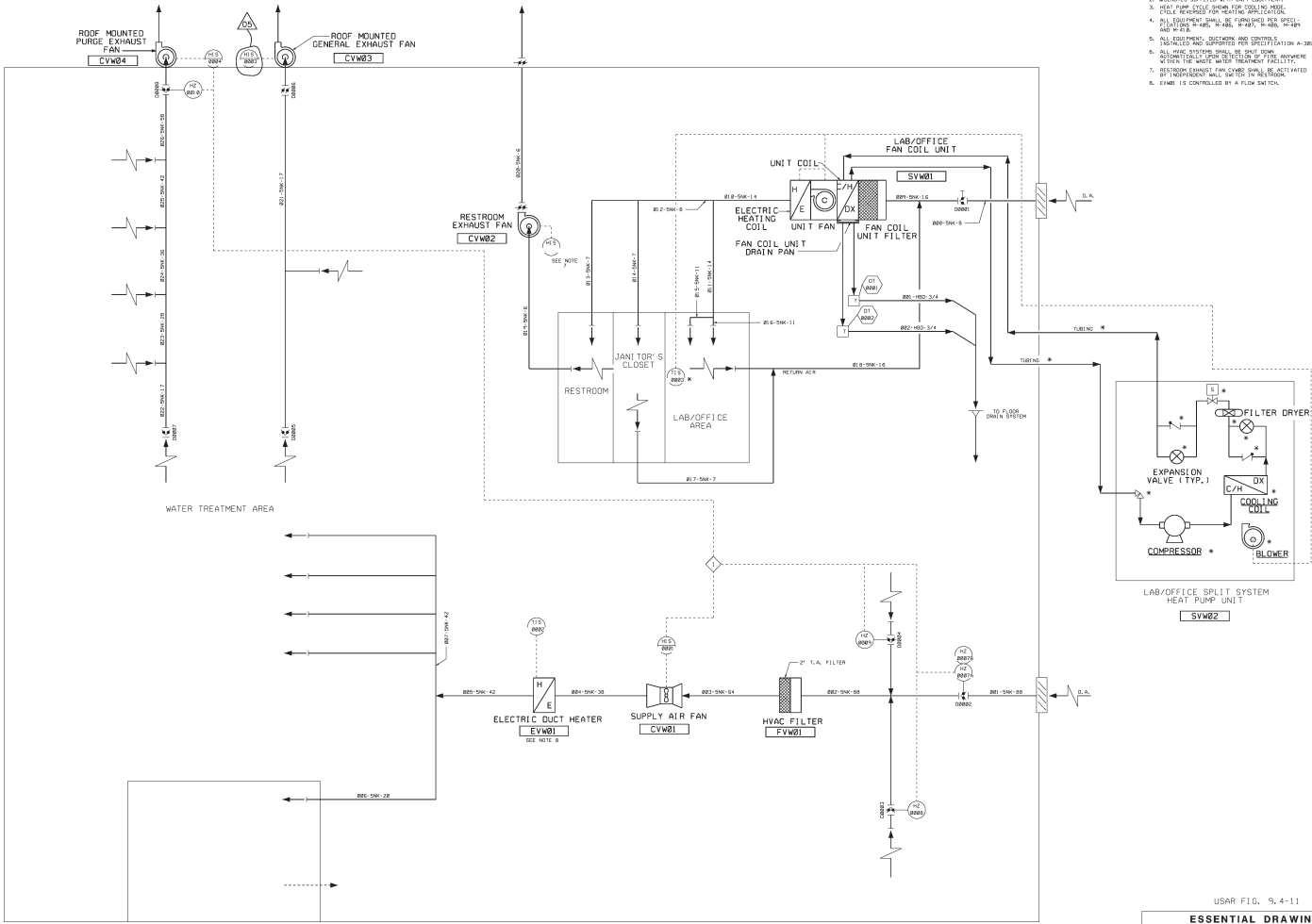


NOTES

- 1) THIS IS FOR THE SFP ALTERNATE COOLING CONNECTION AND IS ONLY TO BE USED AT THE DIRECTION OF THE SHIFT MANAGER AND APPLICABLE PROCEDURES.
- 2) A SPOD MAY BE INSTALLED IN LIEU OF THE ELBOW WHEN THE SFP ALTERNATE COOLING IS NOT ALIGNED FOR REMELTING OUTAGES.

NOTES

1. DUCTWORK SIZES ARE INDICATED AS EQUIVALENT ROUND.
2. IDENTITIES SUPPLIED WITH UNIT EQUIPMENT.
3. LEAK TIGHT GASKETS SHALL BE PROVIDED FOR COILS, COILS REVERSED FOR HEATING/COOLING.
4. ALL EQUIPMENT SHALL BE PROVIDED FOR SPECIFIC FILLATIONS: 1/4" ABS, 1/2" ABS, 3/4" ABS, 1" ABS, 1 1/2" ABS, 2" ABS.
5. ALL TIGHTENING, DETAILING AND CONNECTIONS SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
6. ALL TIGHTENING, DETAILING AND CONNECTIONS SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. RESTROOM EXHAUST FAN CVW02 SHALL BE ACTIVATED BY A FLOW SWITCH.
8. EXHAUST IS CONTROLLED BY A FLOW SWITCH.

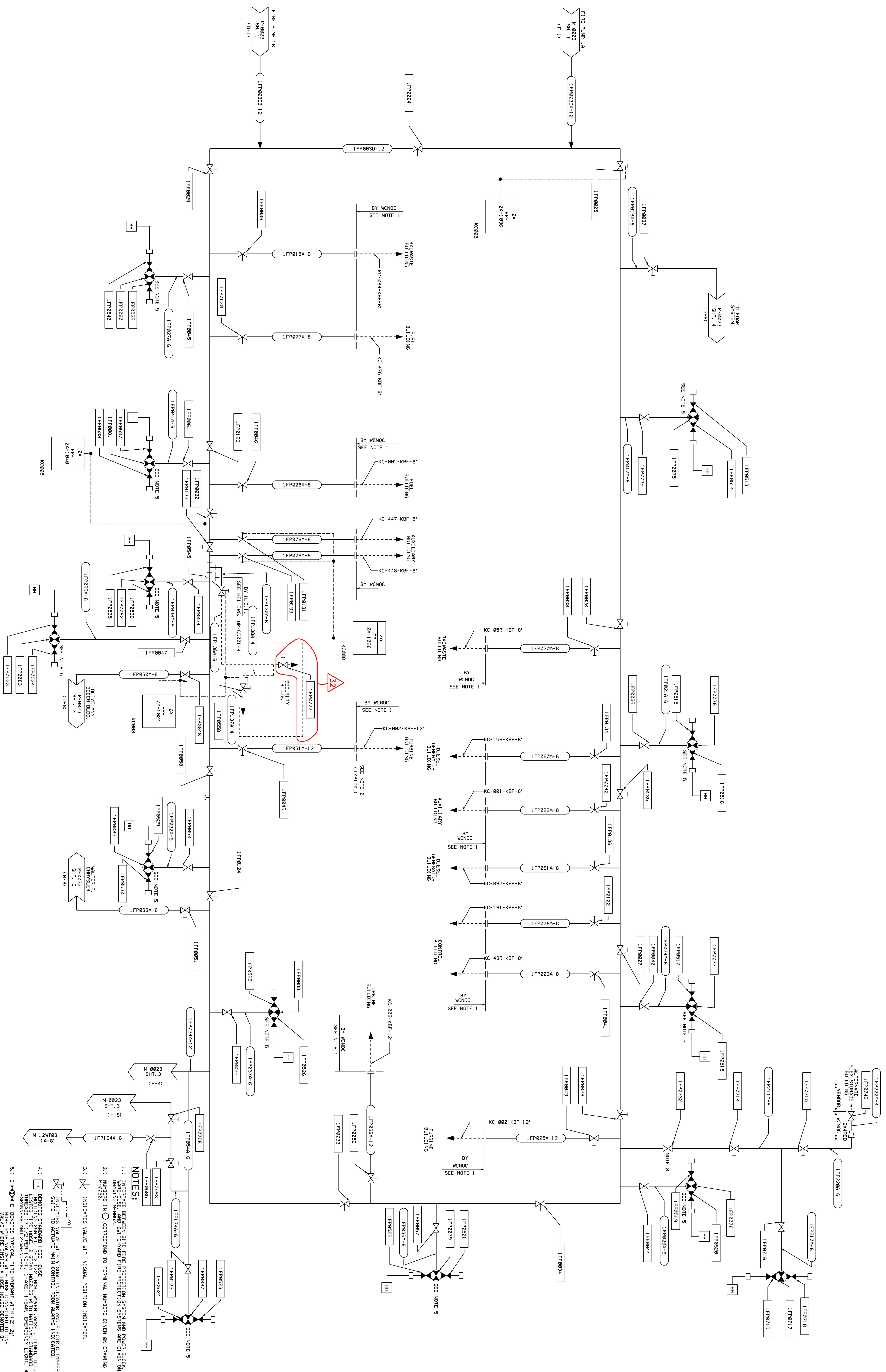


USAR FIG. 9.4-11

ESSENTIAL DRAWING

DESIGNED BY	DATE	APPROVED BY	DATE
WOLF CREEK	10/10/11	WOLF CREEK	10/10/11
WASTE WATER TREATMENT FACILITY		H.V.A.C. P310	
M-12VW01		105	





6.) UNDERGROUND FIRE PROTECTION YARD LOOP TO BE PER NFPA NO. 24.
7.) NUMBERS WITHIN ISOLATION DECKS REFER TO THE NUMBER OF THE APPLICABLE SHUT OFF VALVE.
8.) VALVE INSTALLED AS CLOSE AS POSSIBLE TO THE MAIN FIRE ISOLATION VALVE FOR THE HOT TAPPING ADDRESS AS NOTED.

USAR FIG. 9, 5-1-02

ESSENTIAL DRAWING

CHG. DTC	INCORPORATED	REVISÉ	020466	CHANGE	PKG. M/L
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ISSUED

THIS DMC SUSPENDED BY	REV.	THIS DMC SUPERSEDES	REV.
<p>REVISION NOTE:</p>			

PETITION NUMBER: INCORPORATES AS-BUILT INFORMATION.

WOLF CREEK
ELECTRONIC
APPROVAL

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NUCLEAR OPERATING CORPORATION	

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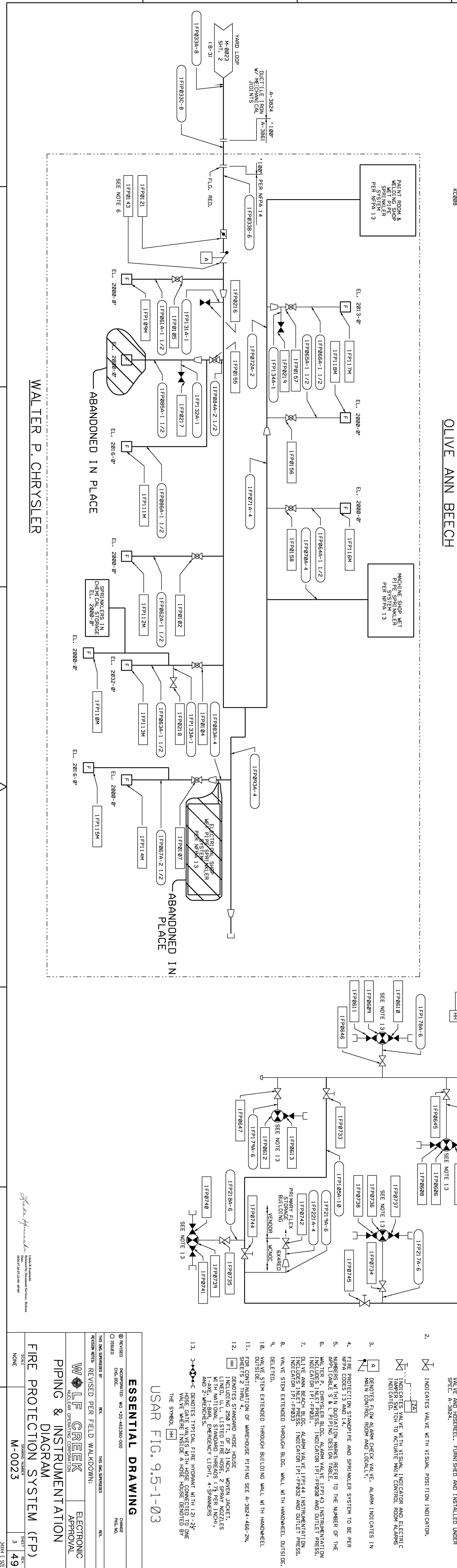
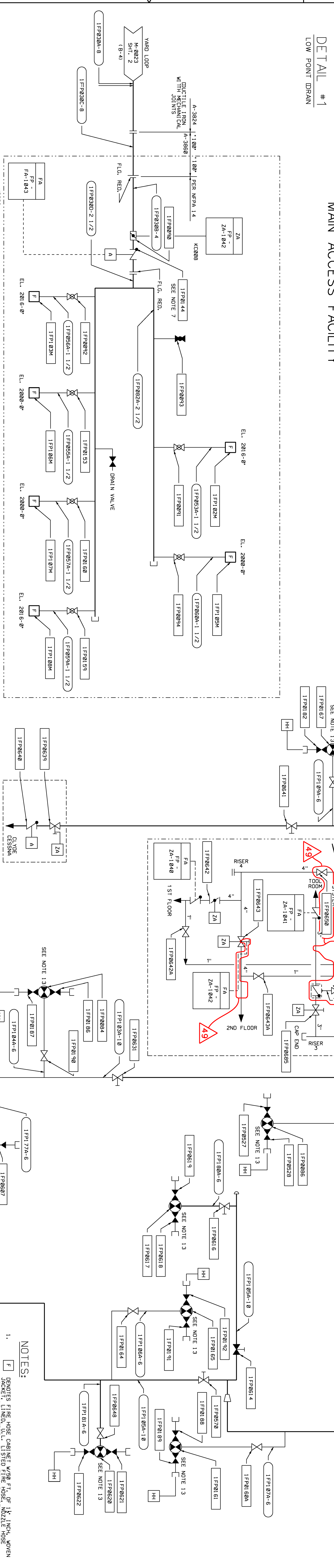
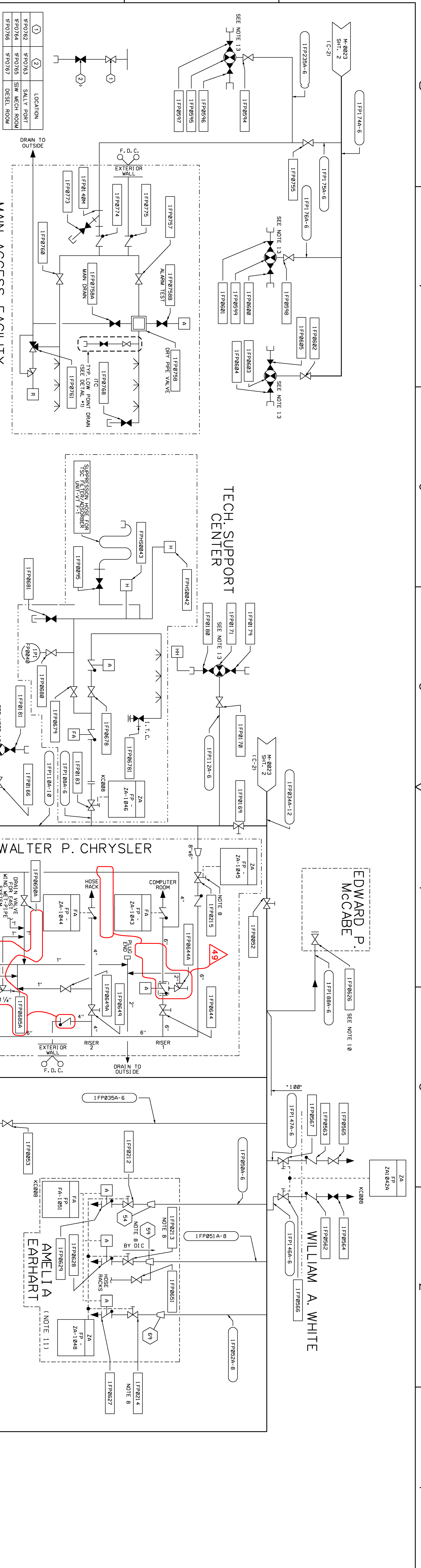
FIRE PROTECTION

SYSTEM (FP)

SCALE	DRAWING NUMBER	SHEET	REV
1/4" = 1'-0"	10000000	1	0

NONE	M-0023	2	32
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34X44 E SD



NOTES:

1. [F] DENOTES FINE HOSE CABINET WITH 1/2" OF 1/2" INCH, WHEN VALVE AND INSERTELL, FURNISHED AND INSTALLED UNDER SPEC. A-3824.

2. [X] INDICATES VALVE WITH VISUAL POSITION INDICATOR.

3. [A] DENOTES FLOW ALARM CHECK VALVE. ALARM INDICATES IN MAIN CONTROL ROOM AND LOCALLY.

4. FIRE PROTECTION IS PIPE AND SPRINKLER SYSTEM TO BE PER APPLICABLE S & L PIPING DESIGN TABLE.

5. WALTER P. CHRYSLER BLDG. ALARM VALVE, JPM 42, INSTRUMENTATION INDICATOR 151-FP031. INDICATOR 151-FP031 AND 151-FP033.

6. OLIVE ANN BEECH BLDG. ALARM VALVE, JPM 44, INSTRUMENTATION INDICATOR 151-FP033. INDICATOR 151-FP033 AND 151-FP035.

7. VALVE STEM EXTENDED THROUGH BLDG. WALL WITH HANDWHEEL, OUTSIDE.

8. VALVE STEM EXTENDED THROUGH BLDG. WALL WITH HANDWHEEL, OUTSIDE.

9. VALVE STEM EXTENDED THROUGH BLDG. WALL WITH HANDWHEEL, OUTSIDE.

10. VALVE STEM EXTENDED THROUGH BUILDING WALL WITH HANDWHEEL, OUTSIDE.

11. FOR CONTINUATION OF WAREHOUSE PIPING SEE A-3824-466-2N.

12. SHERTS 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

13. [X] DENOTES TYPICAL FIRE HYDRANT WITH (12"-24" WIDE) WAREHOUSE INSIDE A HOSE CONNECTION DETAIL TO BE THE SYMBOL.

USAR FIG. 9.5-1-03

ESSENTIAL DRAWING

INCORPORATED: WD-20-46250-000

REVISIONS: REV. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

WALTER P. CHRYSLER

PIPING & INSTRUMENTATION

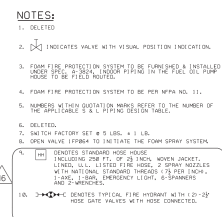
DIAGRAM



FIRE PROTECTION SYSTEM (FPP)

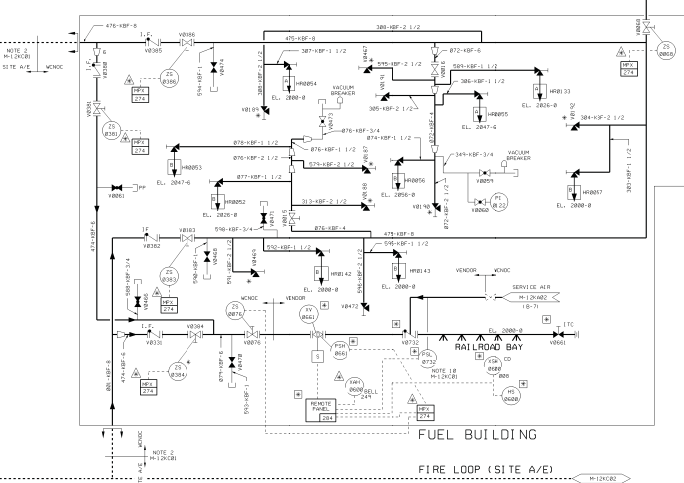
SCALE: 1/4" = 1'-0"

SHEET NO. 3

TOTAL SHEETS 49





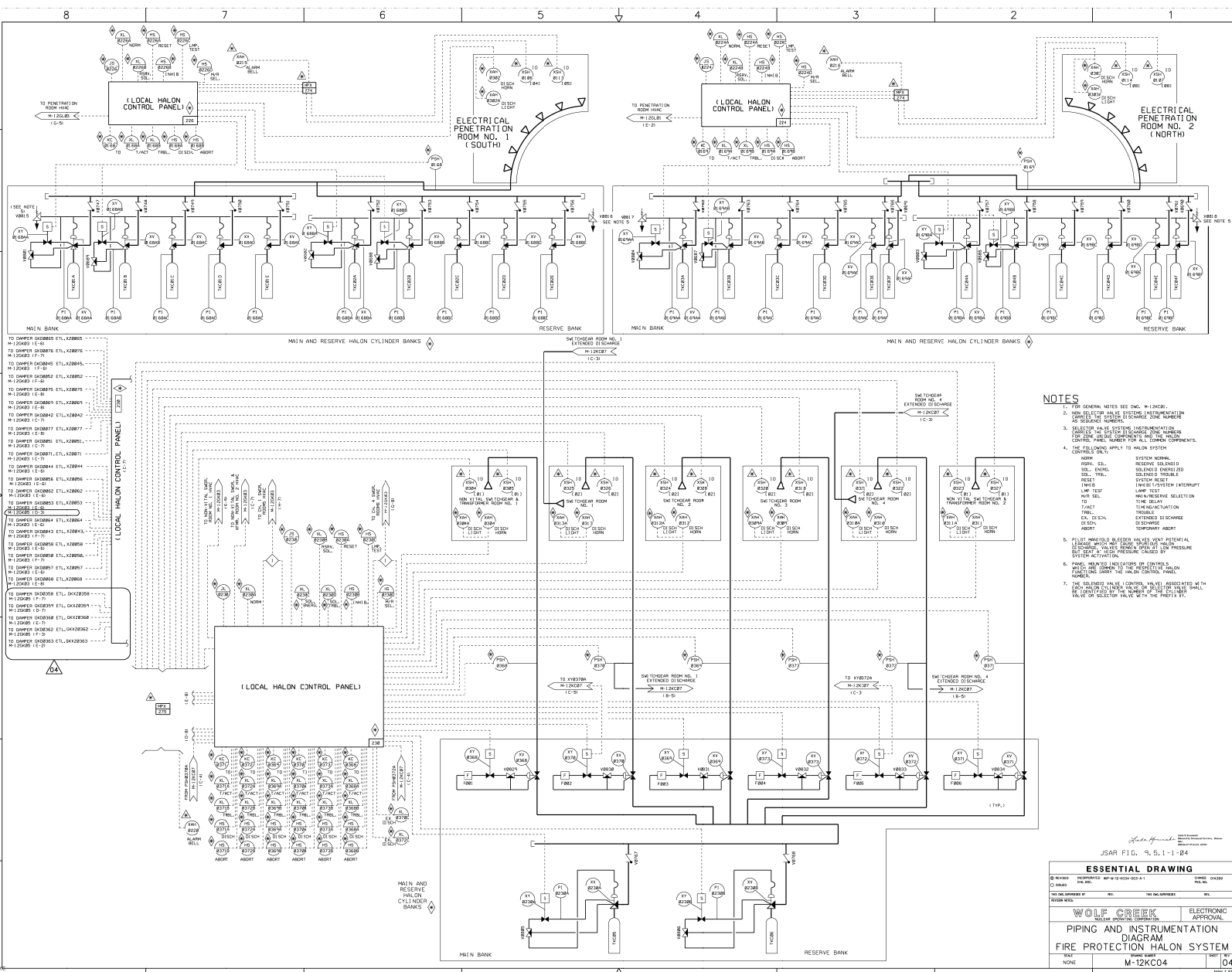
ESSENTIAL DRAWING			
<input type="checkbox"/> REVISED <input type="checkbox"/> ISSUED	INCORPORATED OF 8783 DIAL CODE	DOWNS P.E., N.E.	
YES I AM INTERESTED BY RETURN NOTICE	YES	YES I AM INTERESTED RETURN	YES
 WOLF CREEK NUCLEAR OPERATING CORPORATION		ELECTRONIC APPROVAL	
SARGENT & LUNDY P & ID FIRE PROTECTION SYSTEM			
SCALE NONE	DRAWING NUMBER M-0023		SHEET 4
		NOV 16 1988	

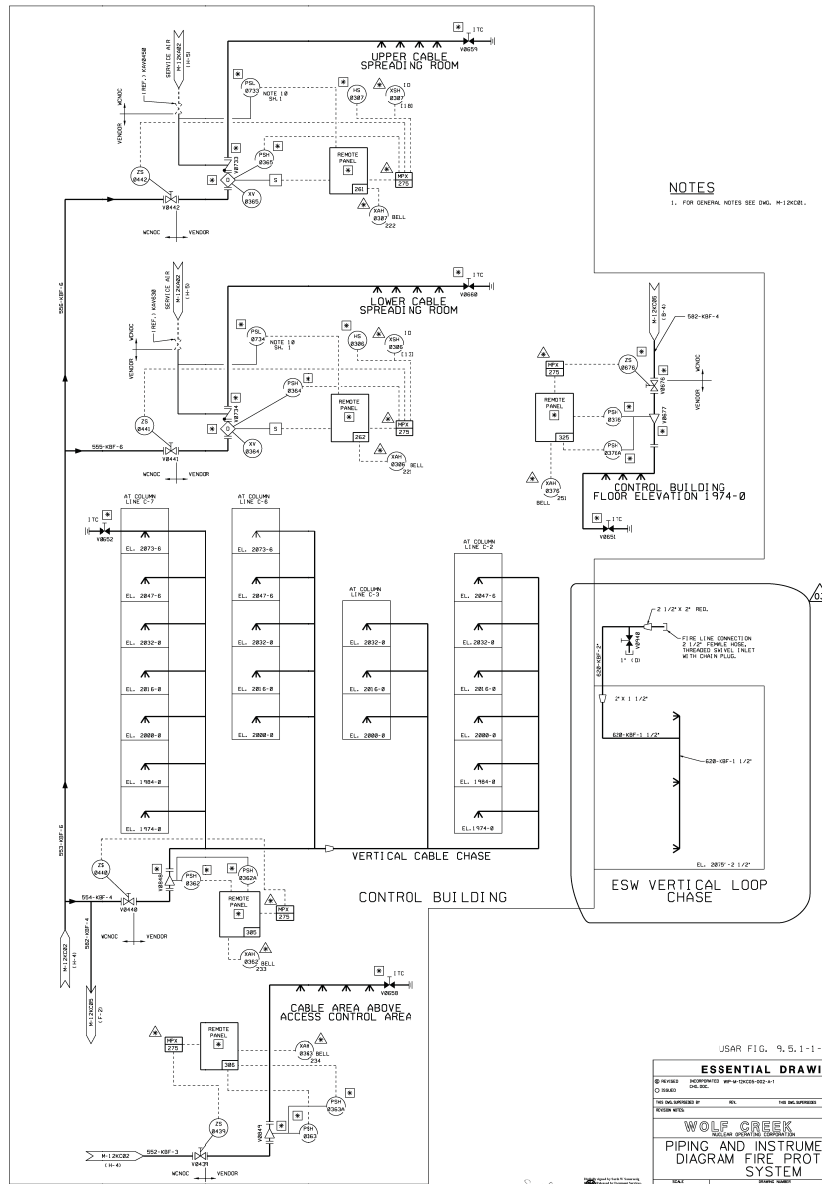
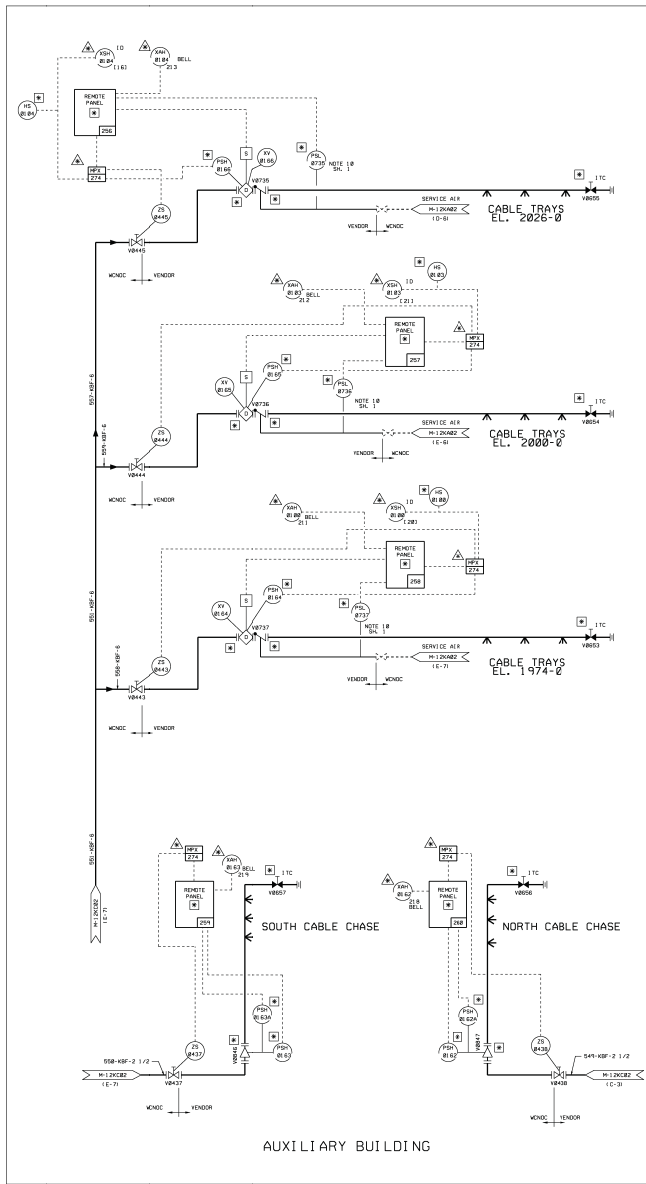


RADIOACTIVE PIPE TUNNEL

- # NOTES
1. FOR GENERAL NOTES SEE DRAWING IN INCHES.
 2. INTERFERENCE PROTECT CONNECTIONS FROM A PART OF ONLY ONE OF THE SPACING STUDS. PROVIDE THE SPACING STUD WITH WELDING AND TRIMMED LINES AHEAD.
 3. THE PROTECTIVE COATING SHALL BE APPLIED TO THE ENTIRE SURFACE OF THE STUDS. THE COATING SHALL BE APPLIED TO THE ENTIRE SURFACE OF THE STUDS. THE COATING SHALL BE APPLIED TO THE ENTIRE SURFACE OF THE STUDS.
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USAP FIG. 9.5.1-1-B3	
ESSENTIAL DRAWING	
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THE SCL. APPROVED BY _____ REVIEW NOTES _____	THE SCL. APPROVED _____ REVIEW NOTES _____
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  <p>WOLF CREEK N.E.C. LEAF UNIT FOR THE CONCRETE</p> </div> <div style="text-align: center;"> <p>ELECTRONIC APPROVAL</p> </div> </div>	
<p>PIPING & INSTRUMENTATION DIAGRAM</p>	
<p>FIRE PROTECTION SYSTEM</p>	
SCL. NO. _____ NONE	SHEET _____ OF _____ M-12KC03
	
© MCKESSER-1986 <small>U.S. PAT. NO. 3,720,000</small>	

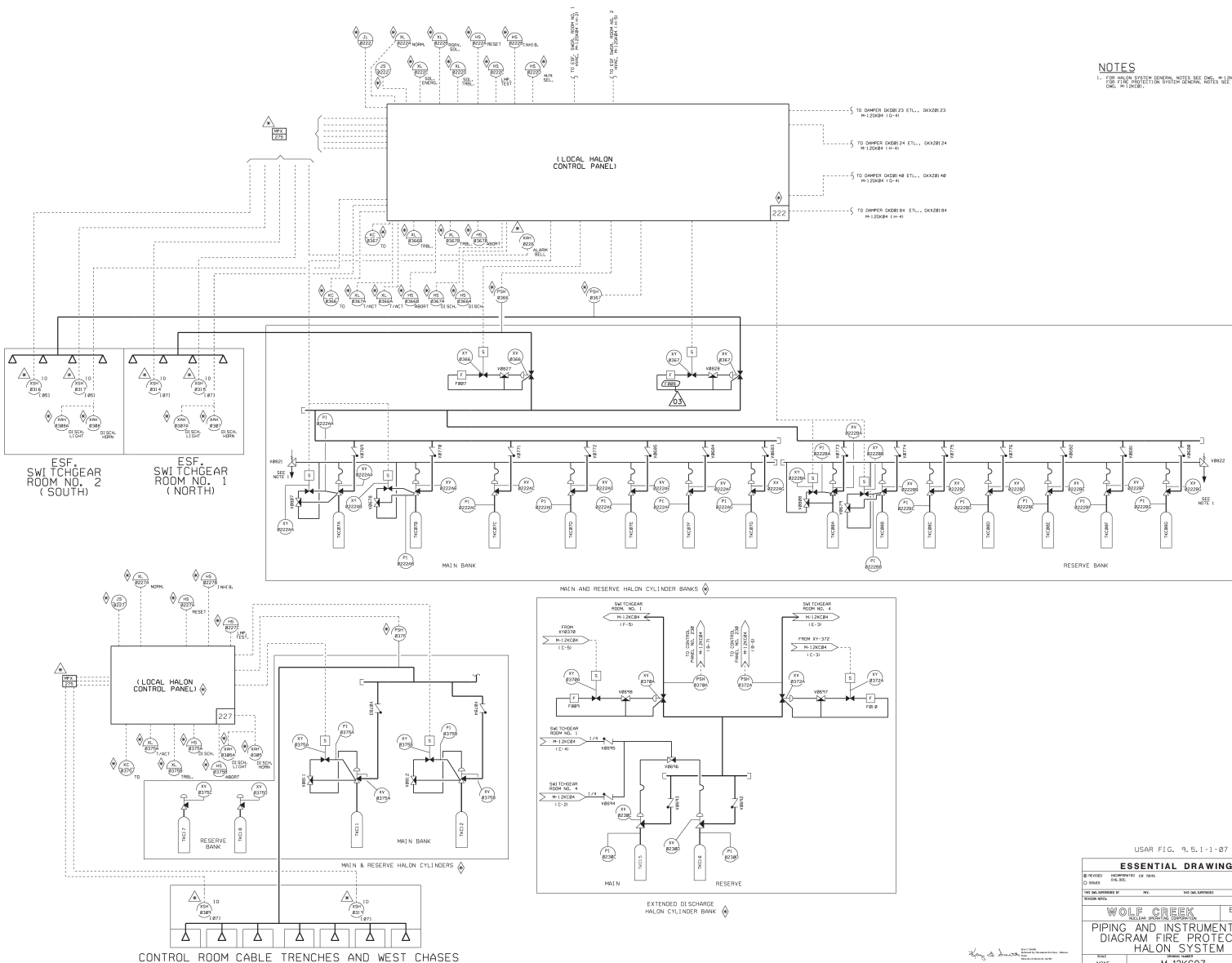




NOTES
1. FOR GENERAL NOTES SEE DWG. M-12K005.

USAR FIG. 9.5.1-1-05			
ESSENTIAL DRAWING			
DESIGNED BY	REVIEWED BY	APP'D BY	DATE
D. 00403	D. 00403	D. 00403	10/01/05
NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS
1	1	1	1
WOLF CREEK		ELECTRONIC APPROVAL	
PIPING AND INSTRUMENTATION		PIPING AND INSTRUMENTATION	
DIAGRAM FIRE PROTECTION SYSTEM		DIAGRAM FIRE PROTECTION SYSTEM	
DATE	DATE	DATE	DATE
10/01/05	10/01/05	10/01/05	10/01/05
M-12K005		M-12K005	

NOTES
 1. FOR HALON SYSTEM GENERAL NOTES SEE DWG. M-12K04.
 2. FOR FIRE PROTECTION SYSTEM GENERAL NOTES SEE DWG. M-12K08.



USAR FIG. 4.5.1-1-07

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DESIGN TITLE			
WOLF CREEK		ELECTRONIC	
75-14-00		APPROVAL	
PIPING AND INSTRUMENTATION			
DIAGRAM FIRE PROTECTION			
HALON SYSTEM			
SCALE	PROJECT		DATE
NONE	M-12KC07		03
JAN 1 1981			
M-12KC07			



SCALE	TRAINING NUMBER	SHEET
1/8" = 1'-0"	10466-A-1801	

FIRE DELINEATION
OR PLAN, EL. 197

10466-A-1801



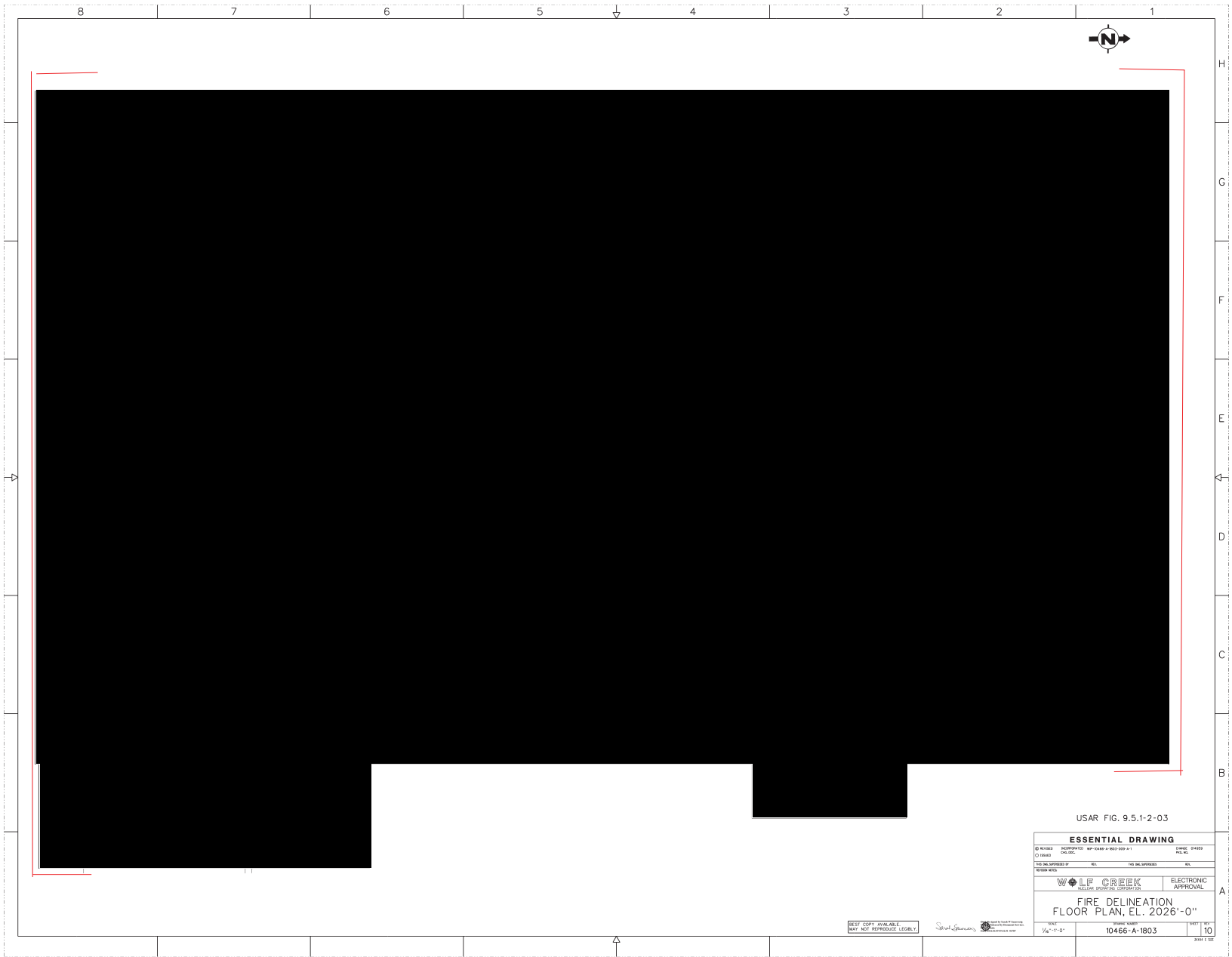
USAR FIG. 9.5.1-2-02

ESSENTIAL DRAWING			
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DESIGNED BY	DESIGNED BY	DATE	10/10/02
DESIGNED BY	DESIGNED BY	DATE	10/10/02
WOLF CREEK ARCHITECTURAL		ELECTRONIC APPROVAL	
FIRE DELINEATION		FLOOR PLAN EL.2000'-0"	
SCALE	1/8" = 1'-0"	DATE	10/10/02
10466-A-1802		17	

BEST COPY AVAILABLE
MAY NOT REPRODUCE LEGALLY

Specialty Graphics

10466-A-1802

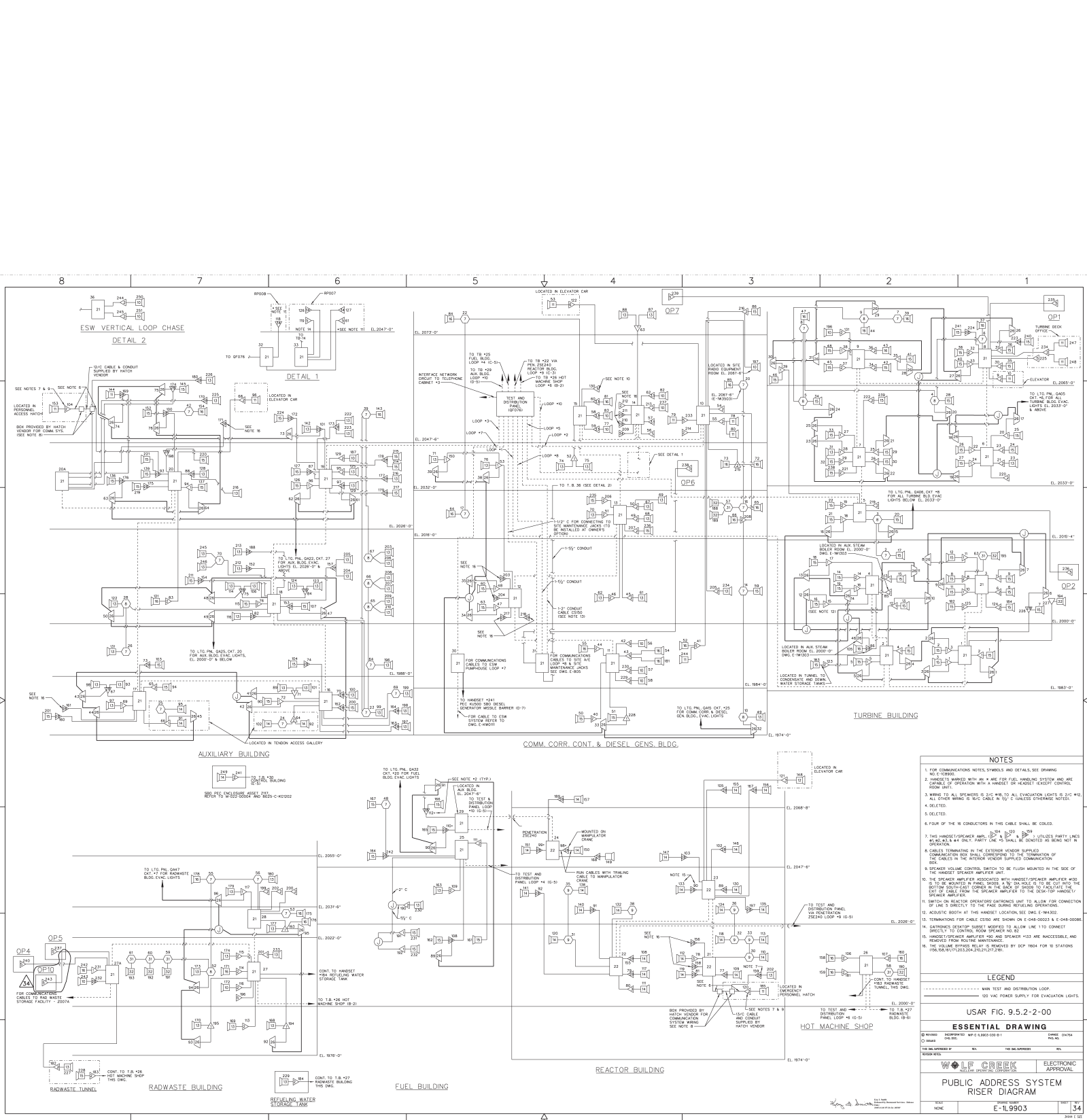


USAR FIG. 9.5.1-2-03

ESSENTIAL DRAWING			
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© NUMBER	10/10/10	DATE	10/10/10
ESSENTIAL DRAWING	10/10/10	DATE	10/10/10
WOLF CREEK		ELECTRONIC APPROVAL	
FIRE DELINEATION FLOOR PLAN, EL. 2026'-0"			
SCALE	1/4"=1'-0"	DATE	10/10/10
10466-A-1803		10	

BEST COPY AVAILABLE
DO NOT REPRODUCE LEGALLY

Seal of the Government of the State of Texas
Department of Transportation
Texas Department of Transportation



NOTES

- FOR COMMUNICATIONS NOTES, SYMBOLS AND DETAILS, SEE DRAWING NO. E-10900.
- HANDETS MARKED WITH IN-W are FOR FIRE, HAZARD, AND SYSTEM ARE CAPABLE OF OPERATION WITH A HANDETS OR HANDETS EXCEPT CONTROL ROOM UNIT.
- WIRING TO ALL OPERATORS IS 2/0 CABLE TO ALL EVACUATION LIGHTS IS 2/0 CABLE. ALL OTHER WIRING IS 2/0 CABLE IN 2/0 CABLES EXCEPTED NOTES.
- DELETED.
- DELETED.
- FOUR OF THE 16 CONDUCTORS IN THIS CABLE SHALL BE COILED.
- THIS HANDETS/SPK. AMP. UNIT UTILIZES PARTLY INES BULB AND A 4-WAY ONLY. PARTLY LINE IS 2/0 CABLE. ALL OTHERS ARE 2/0 CABLE.
- CABLES TERMINATING IN THE EXTERIOR VENDOR SUPPLY CONNECTIONS SHALL TERMINATE IN THE TERMINATION OF THE CABLES IN THE INTERIOR VENDOR SUPPLY CONNECTIONS.
- SPEAKER VOLUME CONTROL SWITCH TO BE FLUSH MOUNTED IN THE SIDE OF THE HANDETS/SPK. AMP. UNIT.
- THE SPEAKER AMPLIFIER ASSOCIATED WITH HANDETS/SPK. AMP. UNIT SHALL BE MOUNTED IN PANEL. SHALL BE 1/2 IN. DIA. HOLES TO BE CUT INTO THE BOTTOM OF THE PANEL. SHALL BE 1/2 IN. DIA. HOLES TO BE CUT INTO THE BOTTOM OF THE PANEL. SHALL BE 1/2 IN. DIA. HOLES TO BE CUT INTO THE BOTTOM OF THE PANEL.
- SWITCH ON REACTOR OPERATOR'S CONTROL UNIT TO ALLOW FIRE CONNECTION OF LINE TO DIRECTLY TO THE FIRE ALARM RETAILING OPERATING.
- ACoustic BOOTH AT THIS HANDETS LOCATION, SEE DWG. E-10900.
- TERMINATIONS FOR CABLE CROSS ARE SHOWN ON E-10900-002 & E-10900-003.
- GARMIN'S DETECTOR SENSORS WIRING TO ALLOW LINE 1 TO CONNECT DIRECTLY TO CONTROL ROOM OPERATOR'S UNIT.
- HANDETS/SPK. AMP. UNIT AND SPEAKER UNIT ARE ACCESSIBLE AND REMOVED FROM POLICE INTERFERENCE.
- THE VOLUME BYPASS RELAY IS REMOVED BY DCP 1004 FOR 10 STATIONS FOR USE IN EMERGENCY SITUATIONS.

LEGEND

..... MAIN TEST AND DISTRIBUTION LOOP
--- USE FOR SUPPLY FOR EVACUATION LIGHTS

USAR FIG. 9.5.2-2-00

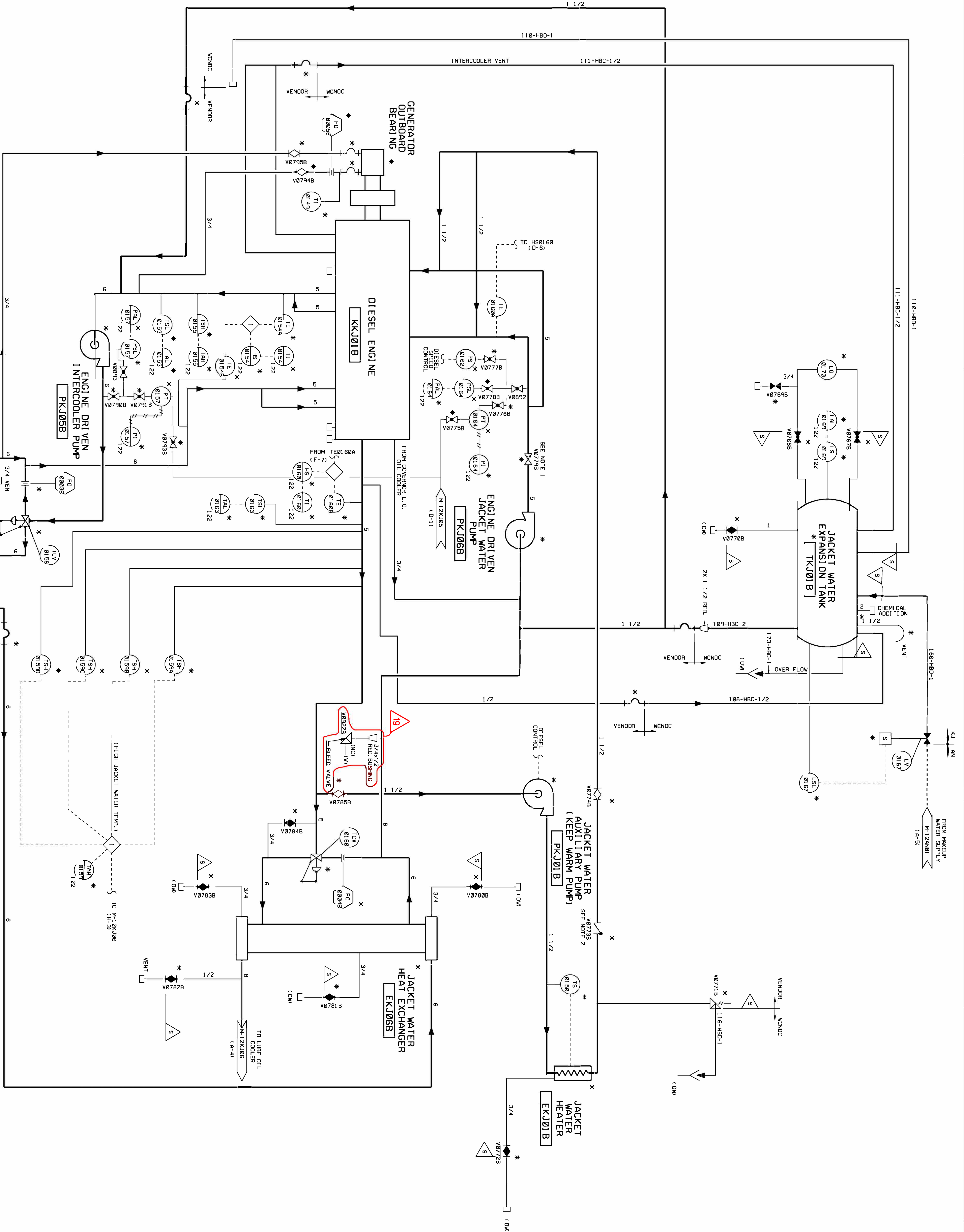
REVISION	DESCRIPTION	DATE	BY	CHKD.
1	ISSUED	10/10/90	WOLF CREEK	WOLF CREEK

WOLF CREEK **ELECTRONIC APPROVAL**

PUBLIC ADDRESS SYSTEM RISER DIAGRAM

DATE: 10/10/90
PAGE: 34

- NOTES
1. REPRESENTS A DUAL PLATE CHECK VALVE.
 2. THE INTERNALS OF VALVE V0773B HAS BEEN REMOVED.
 3. DELETED
 4. KJWB01 IS SHADOWED IN PLACE AND BLOCKED CLOSED WITH THE ACTION REQUIRED.



USAR FIG. 9.5.5-1-02

ESSENTIAL DRAWING

© REVISED INCORPORATES WP-M-12KJ04-08-A-1 CHANGE 02/2014

DESIGNED BY: J. L. GREEK

REVISIONS: NONE

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W. L. GREEK

NEELAP ENGINEERING CORPORATION

ELECTRONIC APPROVAL

PIPING & INSTRUMENTATION DIAGRAM
STANDBY DIESEL GENERATOR "B"
COOLING WATER SYSTEM

SCALE: NONE

SHEET: 1

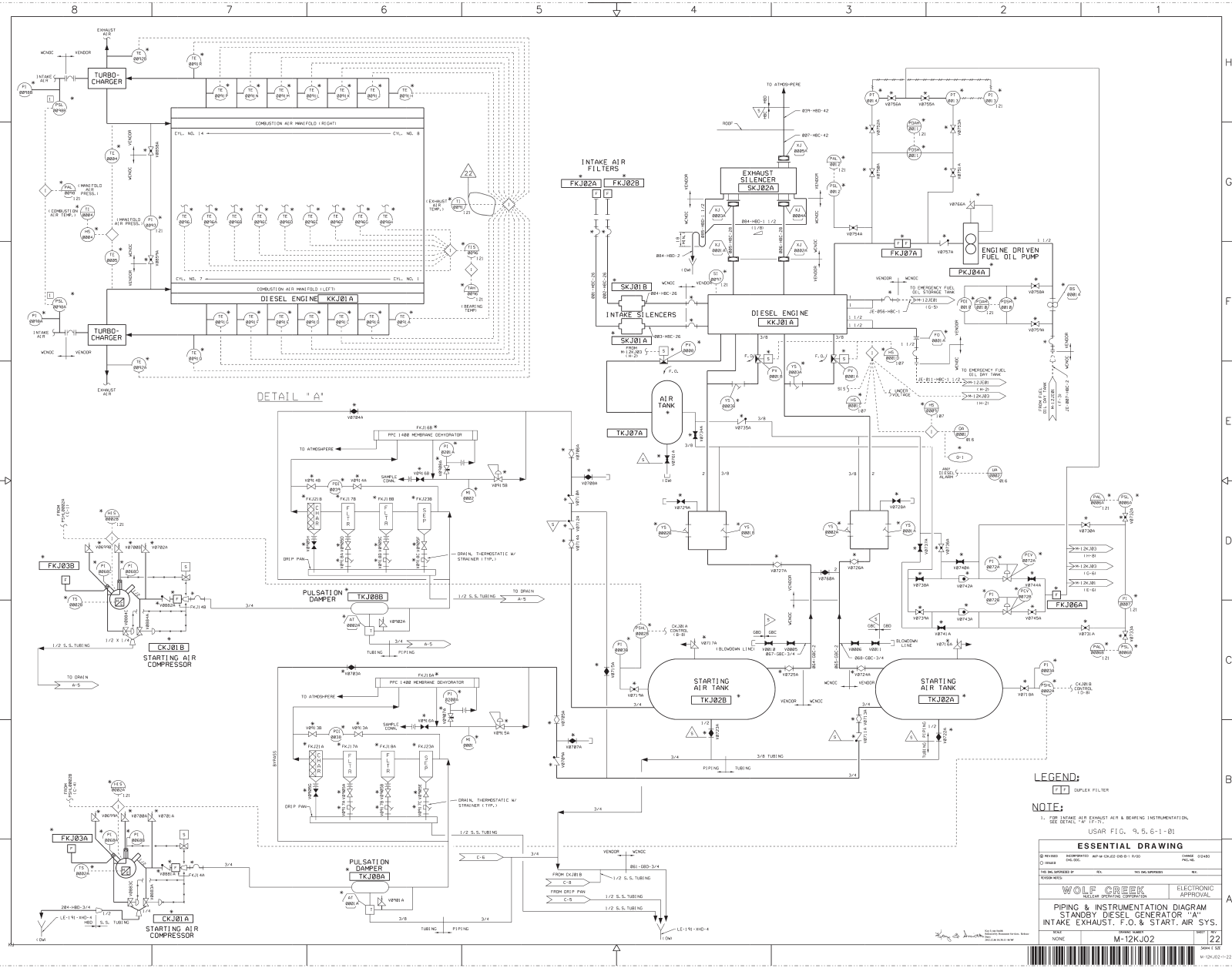
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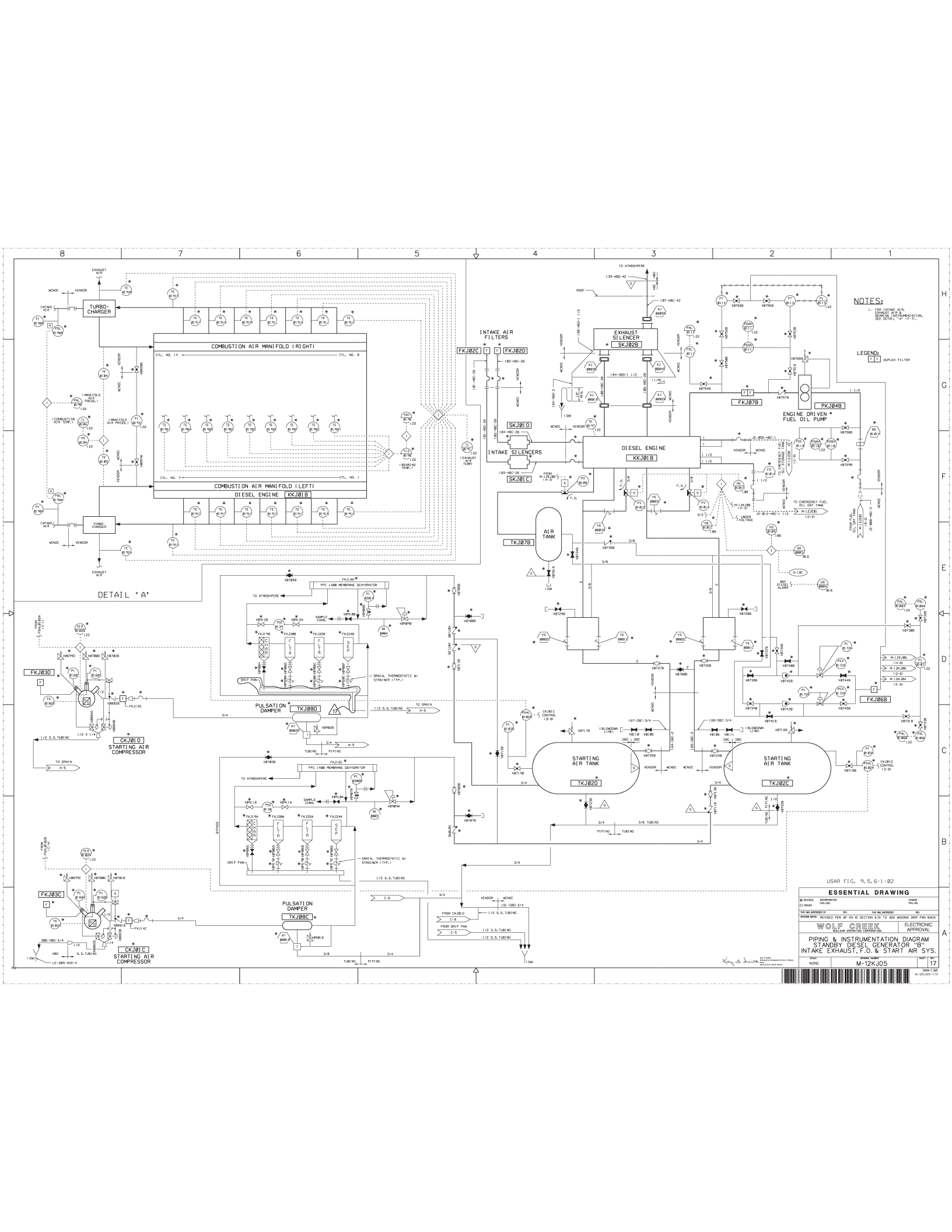
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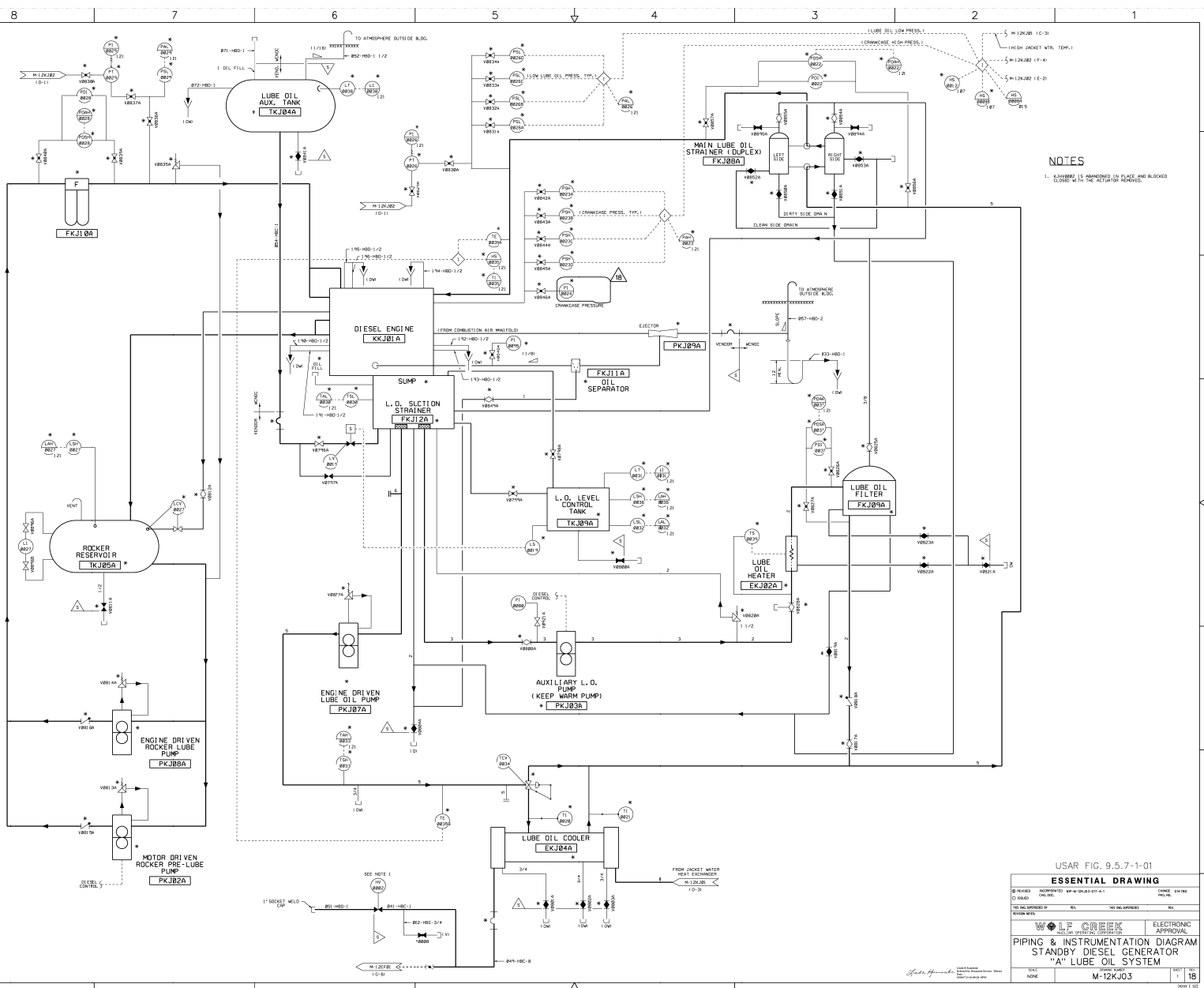
BY: J. L. GREEK

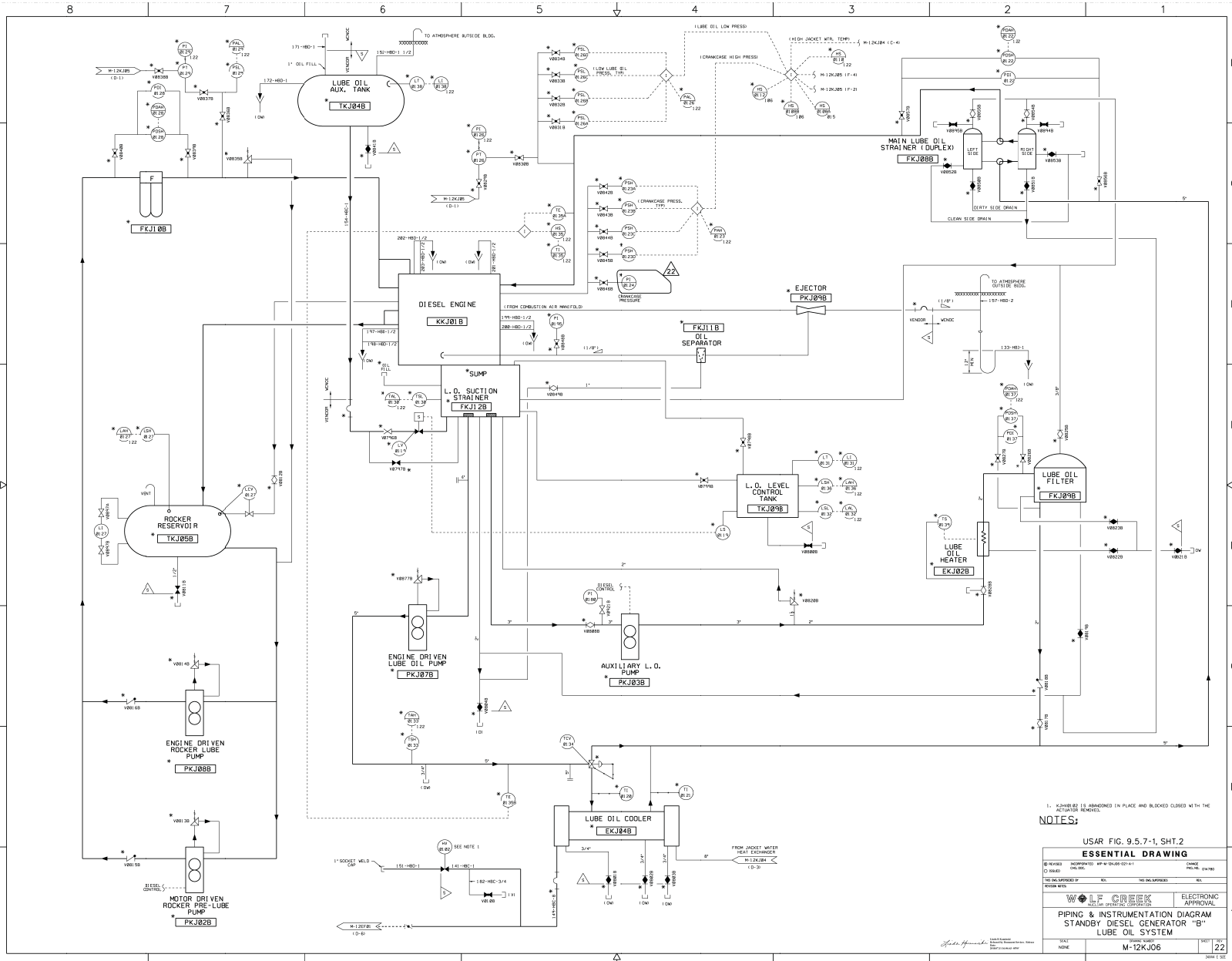
CHKD: M-12KJ04

3044 E SIDE









NOTES:

1. KJ0082 IS ABANDONED IN PLACE AND BLOCKED CLOSED WITH THE ACTIVATOR REMOVED.

USAR FIG. 9.5.7-1, SHT.2

ESSENTIAL DRAWING

REVISION	INCORPORATED	APP. NO.	DATE	BY
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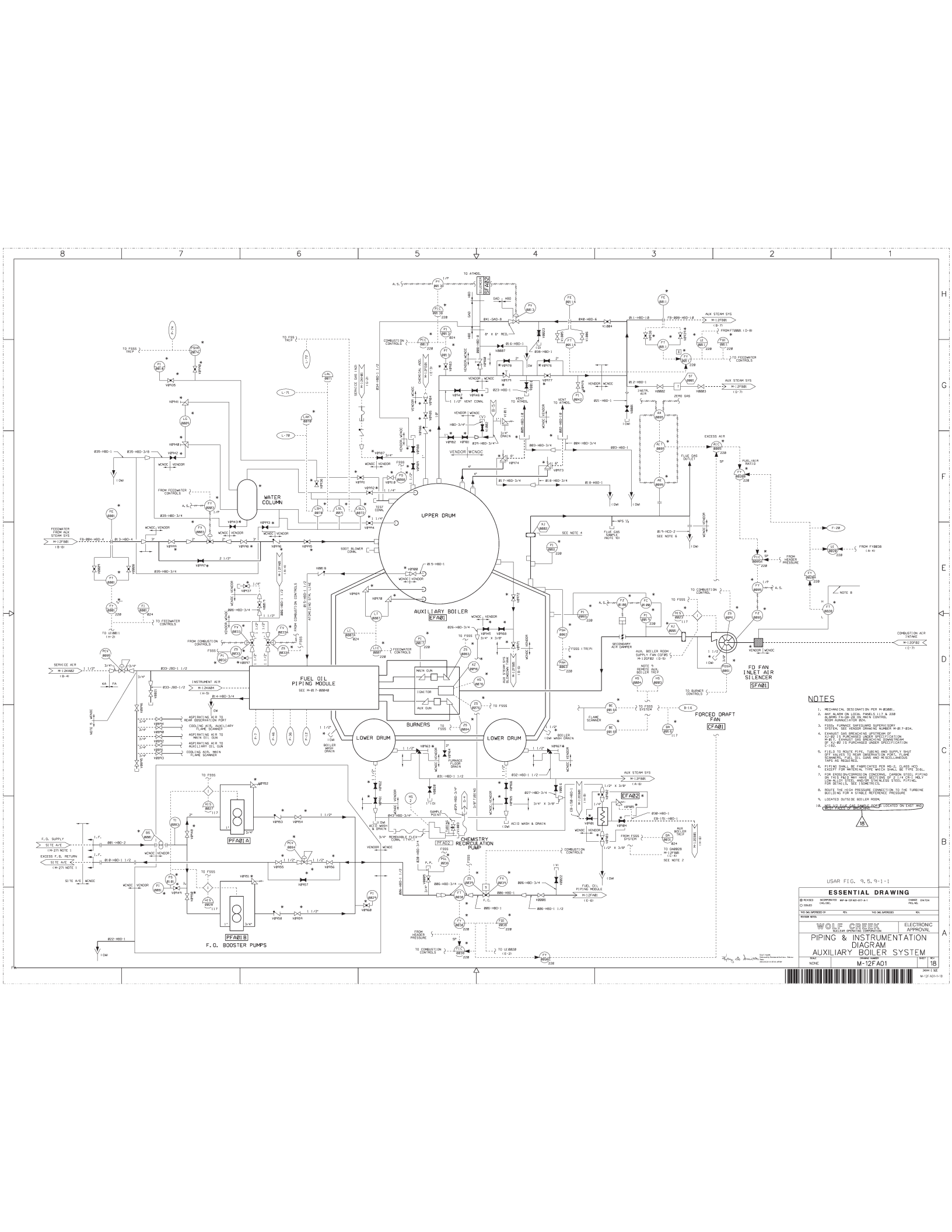
WOLF CREEK ELECTRONIC APPROVAL

PIPING & INSTRUMENTATION DIAGRAM
STANDBY DIESEL GENERATOR "B"
LUBE OIL SYSTEM

SCALE: NONE

DATE: 12/22

12/22



NOTES

1. MECHANICAL RECONSTRUCTION PER M-12FA01-1.
2. ANY ALARM ON LOCAL PANELS (L-1, L-2, L-3) SHALL BE IN THE ROOM DRAINAGE BOX.
3. EXIST. A FAN-DRIVEN SUPPLY SYSTEM FOR THE F.D. FAN.
4. EXHAUST GAS PRESSURE (EXGAS) IS TO BE MONITORED BY A PRESSURE TRANSDUCER (PT) IN THE EXHAUST GAS LINE. THE EXGAS LINE IS TO BE LOCATED OUTSIDE THE BOILER ROOM.
5. FIELD TO INSTR. PUMP, THERM AND SUPPLY SHUT OFF VALVE, TO THE INSTRUMENTATION POINT, TO BE TAPED AS REQUIRED.
6. F.D. FAN INLET AIR SILENCER (SFAB1) IS TO BE LOCATED OUTSIDE THE BOILER ROOM.
7. FOR EXHAUST GAS PRESSURE (EXGAS) MONITORING, EXIST. EXGAS LINE IS TO BE LOCATED OUTSIDE THE BOILER ROOM.
8. EXIST. EXGAS LINE IS TO BE LOCATED OUTSIDE THE BOILER ROOM.
9. EXIST. EXGAS LINE IS TO BE LOCATED OUTSIDE THE BOILER ROOM.
10. EXIST. EXGAS LINE IS TO BE LOCATED OUTSIDE THE BOILER ROOM.

USAR FIG. 9.5.9-1-1

ESSENTIAL DRAWING

DESIGNED BY	INCORPORATED BY	DATE	04/10/11
DESIGNED BY	INCORPORATED BY	DATE	04/10/11
DESIGNED BY	INCORPORATED BY	DATE	04/10/11

WOLF CREEK ELECTRONIC APPROVAL

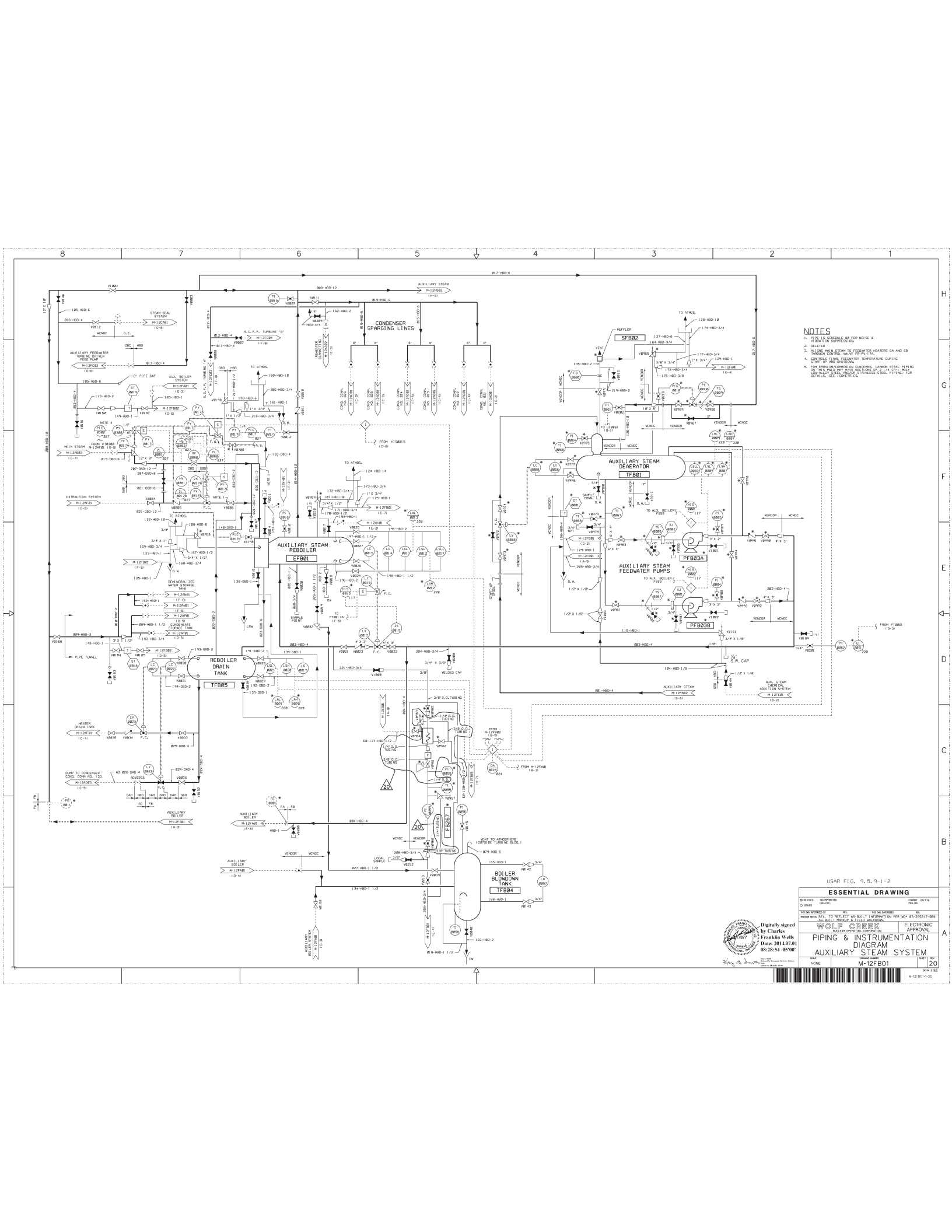
PIPING & INSTRUMENTATION DIAGRAM

AUXILIARY BOILER SYSTEM

NOTE: M-12FA01

18

M-12FA01-1-1



NOTES

1. SEE 1.5.0.0 FOR MORE INFORMATION.
2. SEE 1.5.0.0 FOR MORE INFORMATION.
3. SEE 1.5.0.0 FOR MORE INFORMATION.
4. SEE 1.5.0.0 FOR MORE INFORMATION.
5. SEE 1.5.0.0 FOR MORE INFORMATION.
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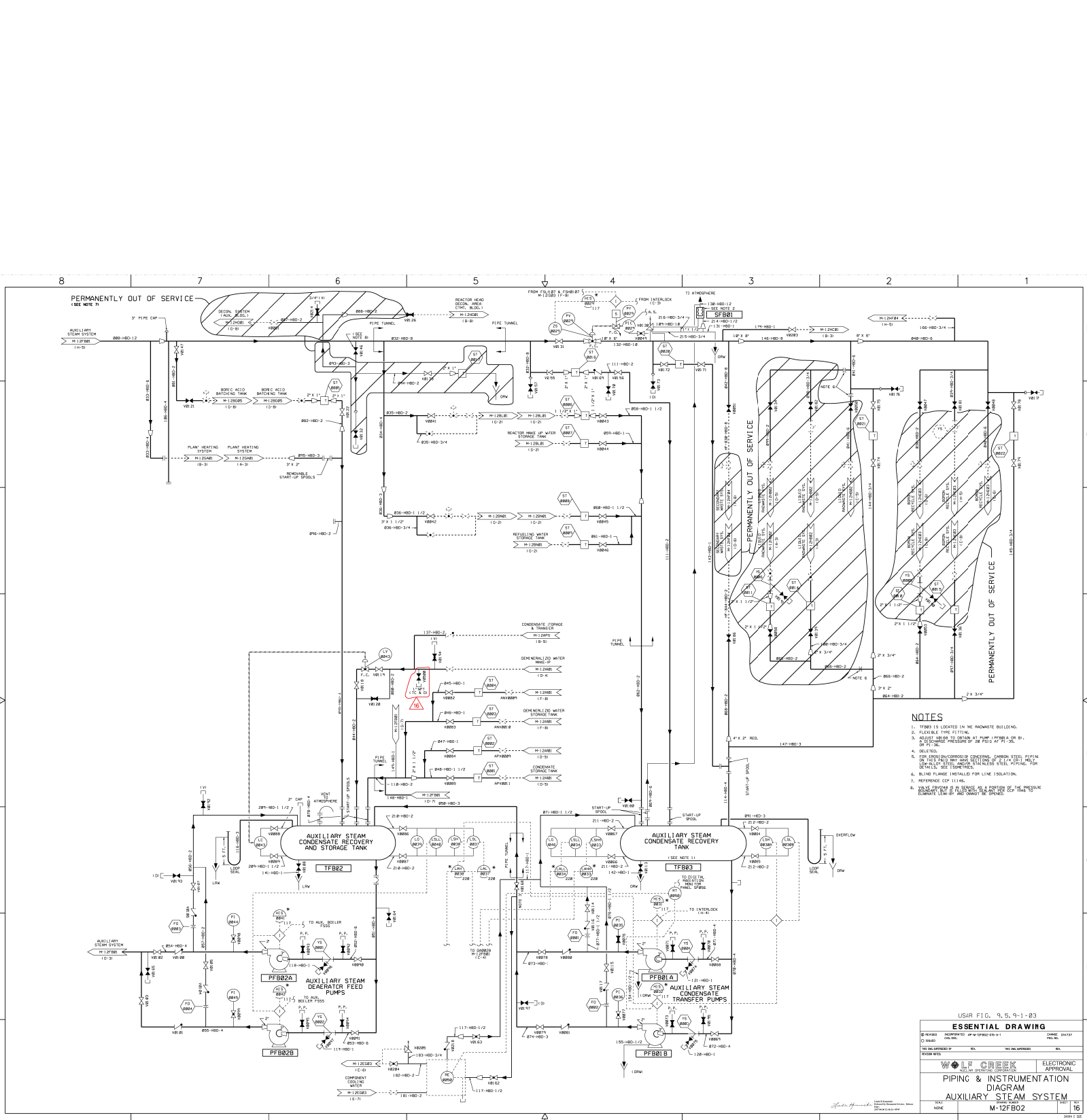
USAR FIG. 9.5.9-1-2

ESSENTIAL DRAWING

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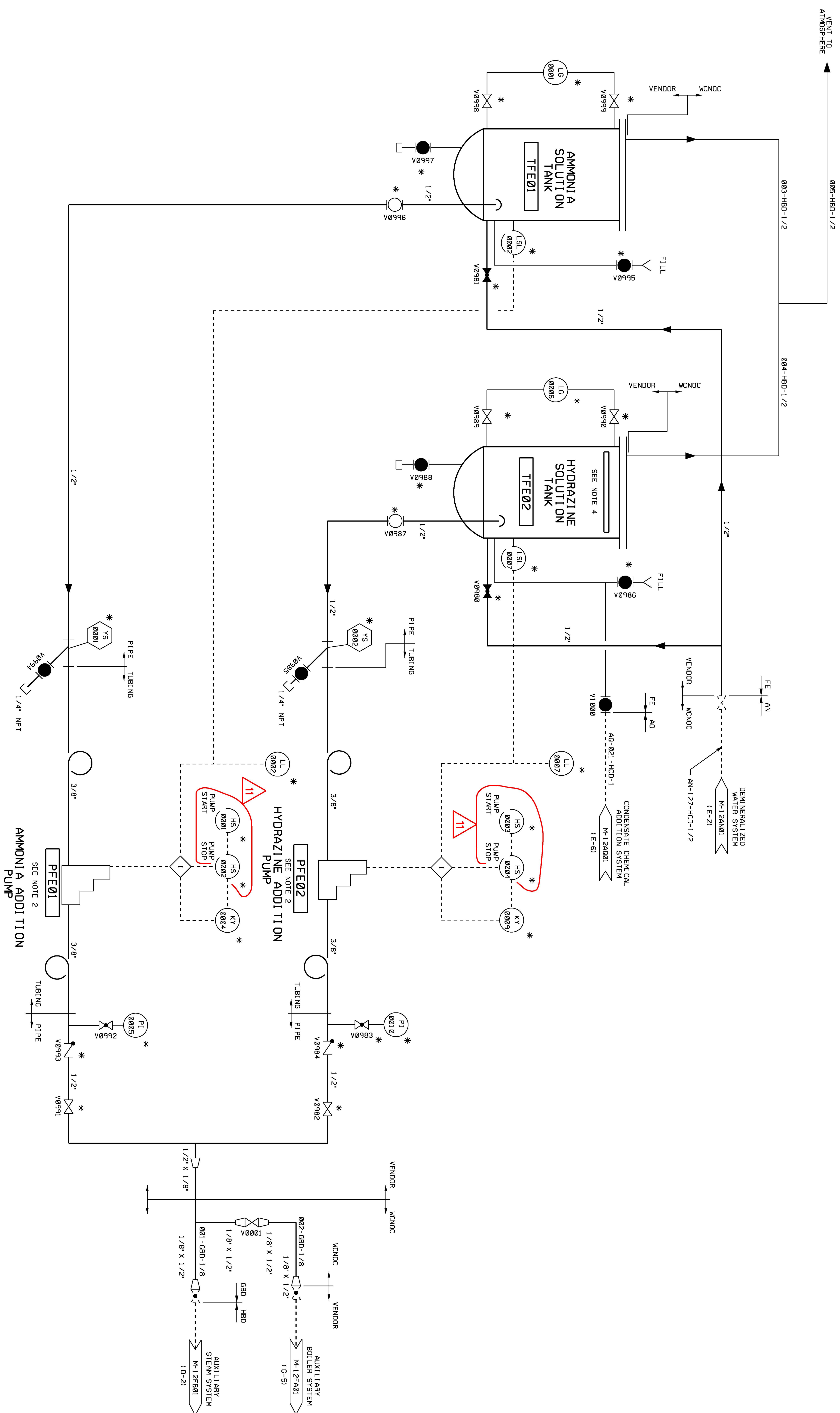
WOLF CREEK
PIPING & INSTRUMENTATION
DIAGRAM
AUXILIARY STEAM SYSTEM
M-12FB01

20



- NOTES
1. TFB03 IS LOCATED IN THE RADWATE BUILDING.
 2. PLUMBING TYPE FITTING.
 3. ALL VALVES ARE TO BE OPEN AT THE TIME OF START-UP OF THE SYSTEM.
 4. DELETED.
 5. FOR DEMINERALIZED WATER CONDENSATE, EXHAUST STEEL PIPING IS TO BE USED FOR THE CONDENSATE PIPING. THE PIPING IS TO BE INSTALLED IN THE RADWATE BUILDING.
 6. BLIND FLANGES INSTALLED FOR LINE ISOLATION.
 7. REFERENCE COP 11146.
 8. THE SYSTEM IS TO BE DESIGNED AS A PORTION OF THE PRESSURE SYSTEM. THE SYSTEM IS TO BE DESIGNED TO WITHSTAND THE PRESSURE OF THE SYSTEM. THE SYSTEM IS TO BE DESIGNED TO WITHSTAND THE PRESSURE OF THE SYSTEM.

USAR FIG. 9.5.9-1-03			
ESSENTIAL DRAWING			
REVISION	DESCRIPTION	DATE	BY
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3	REVISION	10/1/03	WOLF CREEK
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6	REVISION	10/1/03	WOLF CREEK
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99	REVISION	10/1/03	WOLF CREEK
100	REVISION	10/1/03	WOLF CREEK



NOTES

1. FE SYSTEM IS MANUALLY OPERATED.
2. PUMPS ARE EQUIPPED WITH MANUAL STROKE CONTROL
3. TIMER HAS A RANGE OF 0 TO 30 HOURS.
4. HIGH DENSITY POLYETHYLENE FLOATING COVER SUPPLIED WITH TANK.

USAR FIG. 9.5.9-1-04

ESSENTIAL DRAWING

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<input type="radio"/> ISSUED	CHG. DOL.		PKG. NO.
THIS Dwg. SUPERSEDED BY		REV.	THIS Dwg. SUPERSEDES
REVISION NOTES			REV.

WOLF CREEK Nuclear Generating Corporation	ELECTRONIC APPROVAL
PIPING & INSTRUMENTATION DIAGRAM AUXILIARY STEAM CHEMICAL ADDITION SYSTEM	
SCALE NONE	SHEET NO. 11

HOSE STATION NUMBER	PRESSURE REGULATIONS																HOSE STATION EQUIPMENT IDENTIFICATION NUMBERS																PLUMB IDENTIFIERS																PRESS. ALARMS										
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AR	AS	AT	AV	AW	AX	AY	AZ	AA	AB								
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11	PCW011A	PCW011B	PCW011C	PCW011D	PCW011E	W011A	W011B	W011C	W011D	W011E	W011F	W011G	W011H	W011I	W011J	W011K	W011L	W011M	W011N	W011O	W011P	W011Q	W011R	W011S	W011T	W011U	W011V	W011W	W011X	W011Y	W011Z	W011AA	W011AB	W011AC	W011AD	W011AE	W011AF	W011AG	W011AH	W011AI	W011AJ	W011AK	W011AL	W011AM	W011AN	W011AO	W011AP	W011AQ	W011AR	W011AS	W011AT	W011AU	W011AV	W011AW	W011AX	W011AY	W011AZ	W011AA	W011AB
12	PCW012A	PCW012B	PCW012C	PCW012D	PCW012E	W012A	W012B	W012C	W012D	W012E	W012F	W012G	W012H	W012I	W012J	W012K	W012L	W012M	W012N	W012O	W012P	W012Q	W012R	W012S	W012T	W012U	W012V	W012W	W012X	W012Y	W012Z	W012AA	W012AB	W012AC	W012AD	W012AE	W012AF	W012AG	W012AH	W012AI	W012AJ	W012AK	W012AL	W012AM	W012AN	W012AO	W012AP	W012AQ	W012AR	W012AS	W012AT	W012AU	W012AV	W012AW	W012AX	W012AY	W012AZ	W012AA	W012AB
13	PCW013A	PCW013B	PCW013C	PCW013D	PCW013E	W013A	W013B	W013C	W013D	W013E	W013F	W013G	W013H	W013I	W013J	W013K	W013L	W013M	W013N	W013O	W013P	W013Q	W013R	W013S	W013T	W013U	W013V	W013W	W013X	W013Y	W013Z	W013AA	W013AB	W013AC	W013AD	W013AE	W013AF	W013AG	W013AH	W013AI	W013AJ	W013AK	W013AL	W013AM	W013AN	W013AO	W013AP	W013AQ	W013AR	W013AS	W013AT	W013AU	W013AV	W013AW	W013AX	W013AY	W013AZ	W013AA	W013AB
14	PCW014A	PCW014B	PCW014C	PCW014D	PCW014E	W014A	W014B	W014C	W014D	W014E	W014F	W014G	W014H	W014I	W014J	W014K	W014L	W014M	W014N	W014O	W014P	W014Q	W014R	W014S	W014T	W014U	W014V	W014W	W014X	W014Y	W014Z	W014AA	W014AB	W014AC	W014AD	W014AE	W014AF	W014AG	W014AH	W014AI	W014AJ	W014AK	W014AL	W014AM	W014AN	W014AO	W014AP	W014AQ	W014AR	W014AS	W014AT	W014AU	W014AV	W014AW	W014AX	W014AY	W014AZ	W014AA	W014AB
15	PCW015A	PCW015B	PCW015C	PCW015D	PCW015E	W015A	W015B	W015C	W015D	W015E	W015F	W015G	W015H	W015I	W015J	W015K	W015L	W015M	W015N	W015O	W015P	W015Q	W015R	W015S	W015T	W015U	W015V	W015W	W015X	W015Y	W015Z	W015AA	W015AB	W015AC	W015AD	W015AE	W015AF	W015AG	W015AH	W015AI	W015AJ	W015AK	W015AL	W015AM	W015AN	W015AO	W015AP	W015AQ	W015AR	W015AS	W015AT	W015AU	W015AV	W015AW	W015AX	W015AY	W015AZ	W015AA	W015AB
16	PCW016A	PCW016B	PCW016C	PCW016D	PCW016E	W016A	W016B	W016C	W016D	W016E	W016F	W016G	W016H	W016I	W016J	W016K	W016L	W016M	W016N	W016O	W016P	W016Q	W016R	W016S	W016T	W016U	W016V	W016W	W016X	W016Y	W016Z	W016AA	W016AB	W016AC	W016AD	W016AE	W016AF	W016AG	W016AH	W016AI	W016AJ	W016AK	W016AL	W016AM	W016AN	W016AO	W016AP	W016AQ	W016AR	W016AS	W016AT	W016AU	W016AV	W016AW	W016AX	W016AY	W016AZ	W016AA	W016AB
17	PCW017A	PCW017B	PCW017C	PCW017D	PCW017E	W017A	W017B	W017C	W017D	W017E	W017F	W017G	W017H	W017I	W017J	W017K	W017L	W017M	W017N	W017O	W017P	W017Q	W017R	W017S	W017T	W017U	W017V	W017W	W017X	W017Y	W017Z	W017AA	W017AB	W017AC	W017AD	W017AE	W017AF	W017AG	W017AH	W017AI	W017AJ	W017AK	W017AL	W017AM	W017AN	W017AO	W017AP	W017AQ	W017AR	W017AS	W017AT	W017AU	W017AV	W017AW	W017AX	W017AY	W017AZ	W017AA	W017AB
18	PCW018A	PCW018B	PCW018C	PCW018D	PCW018E	W018A	W018B	W018C	W018D	W018E	W018F	W018G	W018H	W018I	W018J	W018K	W018L	W018M	W018N	W018O	W018P	W018Q	W018R	W018S	W018T	W018U	W018V	W018W	W018X	W018Y	W018Z	W018AA	W018AB	W018AC	W018AD	W018AE	W018AF	W018AG	W018AH	W018AI	W018AJ	W018AK	W018AL	W018AM	W018AN	W018AO	W018AP	W018AQ	W018AR	W018AS	W018AT	W018AU	W018AV	W018AW	W018AX	W018AY	W018AZ	W018AA	W018AB
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22	PCW022A	PCW022B	PCW022C	PCW022D	PCW022E	W022A	W022B	W022C	W022D	W022E	W022F	W022G	W022H	W022I	W022J	W022K	W022L	W022M	W022N	W022O	W022P	W022Q	W022R	W022S	W022T	W022U	W022V	W022W	W022X	W022Y	W022Z	W022AA	W022AB	W022AC	W022AD	W022AE	W022AF	W022AG	W022AH	W022AI	W022AJ	W022AK	W022AL	W022AM	W022AN	W022AO	W022AP	W022AQ	W022AR	W022AS	W022AT	W022AU	W022AV	W022AW	W022AX	W022AY	W022AZ	W022AA	W022AB
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26	PCW026A	PCW026B	PCW026C	PCW026D	PCW026E	W026A	W026B	W026C	W026D	W026E	W026F	W026G	W026H	W026I	W026J	W026K	W026L	W026M	W026N	W026O	W026P	W026Q	W026R	W026S	W026T	W026U	W026V	W026W	W026X	W026Y	W026Z	W026AA	W026AB	W026AC	W026AD	W026AE	W026AF	W026AG	W026AH	W026AI	W026AJ	W026AK	W026AL	W026AM	W026AN	W026AO	W026AP	W026AQ	W026AR	W026AS	W026AT	W026AU	W026AV	W026AW	W026AX	W026AY	W026AZ	W026AA	W026AB
27	PCW027A	PCW027B	PCW027C	PCW027D	PCW027E	W027A	W027B	W027C	W027D	W027E	W027F	W027G	W027H	W027I	W027J	W027K	W027L	W027M	W027N	W027O	W027P	W027Q	W027R	W027S	W027T	W027U	W027V	W027W	W027X	W027Y	W027Z	W027AA	W027AB	W027AC	W027AD	W027AE	W027AF	W027AG	W027AH	W027AI	W027AJ	W027AK	W027AL	W027AM	W027AN	W027AO	W027AP	W027AQ	W027AR	W027AS	W027AT	W027AU	W027AV	W027AW	W027AX	W027AY	W027AZ	W027AA	W027AB
28	PCW028A	PCW028B	PCW028C	PCW028D	PCW028E	W028A	W028B	W028C	W028D	W028E	W028F	W028G	W028H	W028I	W028J	W028K	W028L	W028M	W028N	W028O	W028P	W028Q	W028R	W028S	W028T	W028U	W028V	W028W	W028X	W028Y	W028Z	W028AA	W028AB	W028AC	W028AD	W028AE	W028AF	W028AG	W028AH	W028AI	W028AJ	W028AK	W028AL	W028AM	W028AN	W028AO	W028AP	W028AQ	W028AR	W028AS	W028AT	W028AU	W028AV	W028AW	W028AX	W028AY	W028AZ	W028AA	W028AB
29	PCW029A	PCW029B	PCW029C	PCW029D	PCW029E	W029A	W029B	W029C	W029D	W029E	W029F	W029G	W029H	W029I	W029J	W029K	W029L	W029M	W029N	W029O	W029P	W029Q	W029R	W029S	W029T	W029U	W029V	W029W	W029X	W029Y	W029Z	W029AA	W029AB	W029AC	W029AD	W029AE	W029AF	W029AG	W029AH	W02																			