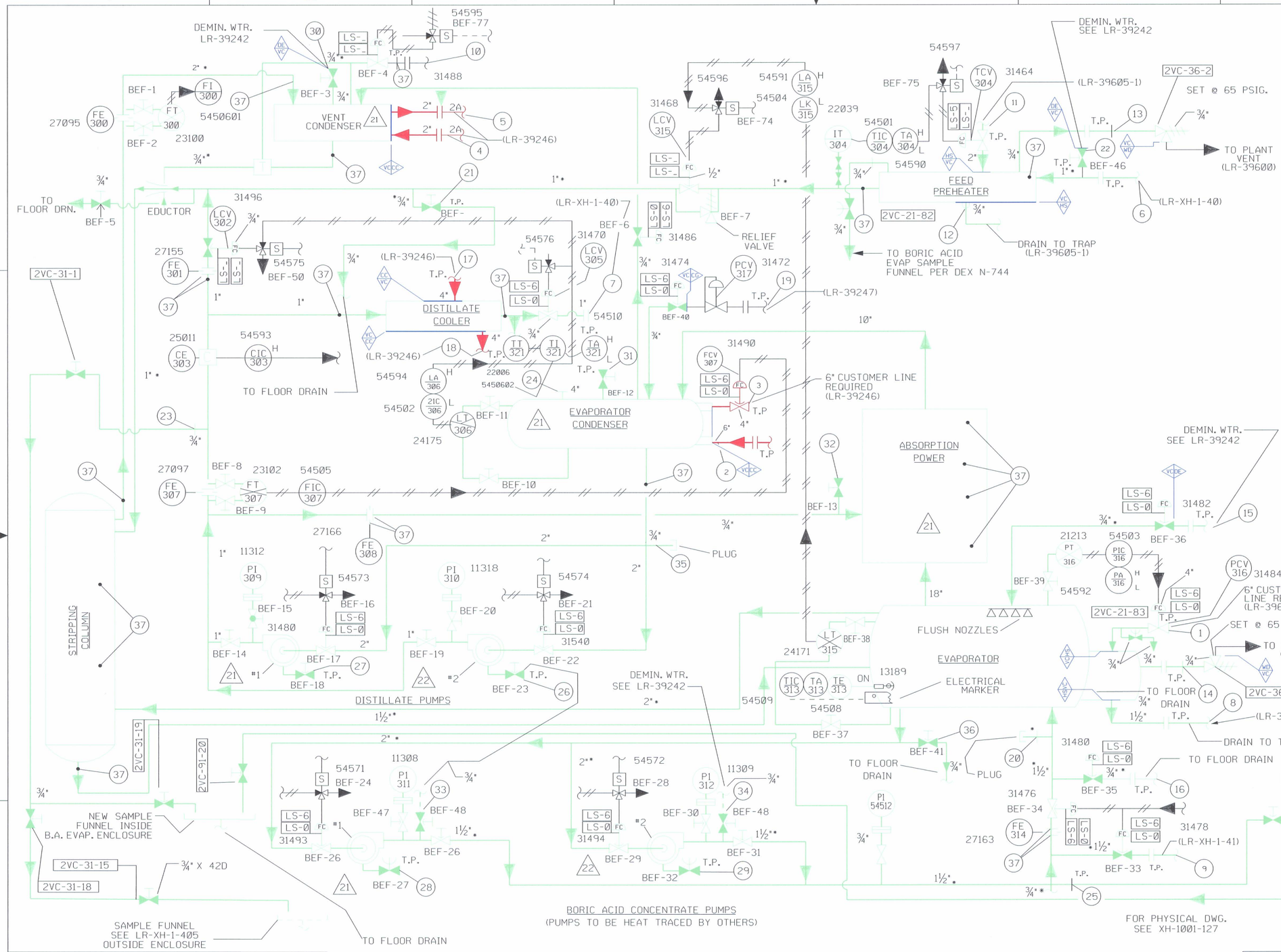

ITEM	DESCRIPTION
1	EVAP. STEAM INLET
2	EVAP. COND. COOLING WATER INLET
3	EVAP. COND. COOLING WATER OUTLET
4	VENT COND. COOLING WATER INLET
5	VENT COND. COOLING WATER OUTLET
6	FEED INLET
7	DISTILLATE OUTLET
8	CONDENSATE OUTLET
9	CONCENTRATED BORIC ACID OUTLET
10	CONDENSER VENT (TO VENT HEADER)
11	FEED PREHEATER STEAM INLET
12	FEED PREHEATER STEAM OUTLET
13	FEED PREHEATER VENT (TO PLANT)
14	EVAP. CHAMBER VENT (TO PLANT VENT)
15	EVAP. FLUSH INLET
16	EVAP. DRAIN
17	DIST. COOLING WATER INLET
18	DIST. COOLING WATER OUTLET
19	NITROGEN SUPPLY
20	CONCENTRATES SAMPLE LINE IN -¾"
21	DRAIN CONNECTION - ¾" (SYSTEM)
22	FLUSH CONNECTION - ¾" (FEED PRE-HTR.)
23	DISTILLATE SAMPLE LINE - ¾" (OUT)
24	RUPTURE DISC (SZ BASED ON "D" PSIG. BK PRESS.
25	CONCENTRATES SAMPLE LINE OUT ⅜ TUBING
26	DRAIN CONNECTION - ¾" (DISTILLATE PUMP #2)
27	DRAIN CONNECTION - ¾" (DISTILLATE PUMP #1)
28	DRAIN CONNECTION - ¾" (CONCENTRATE PUMP #1)
29	DRAIN CONNECTION - ¾" (CONCENTRATE PUMP #2)
30	FLUSH CONNECTION - ¾" (VENT COND.)
31	FLUSH CONNECTION - ¾" (EVAP COND.)
32	FLUSH CONNECTION - ¾" (ABSORPTION TOWER)
33	FLUSH CONNECTION - ¾" (CONCENTRATE PUMP#1)
34	FLUSH CONNECTION - ¾" (CONCENTRATE PUMP#2)
35	DISTILLATE SAMPLE LINE -¾" (IN)
36	DRAIN CONNECTIN -¾" (SUB TUBE EVAP.)
37	BOSSES FOR FIELD TESTING (⅛" NPT - PLUGGED

NOTES

1. ~~~ LINES HEAT TRACED BY OTHERS.
* 2. ALL LINES MARKED "*" ARE CLASS 131R, THIS IS A DESIGNATION ONLY & NO ADDITIONAL INSPECTION HAS BEEN PERFORMED ON THIS PIPING. ALL OTHER PIPE IS CLASS 131.
3. SYSTEM LOGIC DEALING WITH SOLENOID VALVES CAN BE FOUND ON THE APPROPRIATE ELECTRICAL OR PNEUMATIC DIAGRAMS.
4. TP INDICATES TERMINAL POINT
5. SOLENOID AIR SUPPLY VALVE ACTION (FO)
   ENERGIZED ON OPEN
   DEENERGIZED ON CLOSED
   ENERGIZED OFF OPEN
   DEENERGIZED OFF OPEN

   "FAIL OPEN" REFERS TO AIR FAILURE ONLY (NOT ELECTRICAL FAILURE)
6. BLOCKED PORT ON SOLENOID INDICATES NORMAL MODE OF OPERATION.
7. PIPING/EQUIPMENT DESIGN CLASS 3, QA TYPE III

LEGEND
- IN SCOPE FOR LR PER 10 CFR 54.4(a)(1) 10 CFR 54.4(a)(3)
- IN SCOPE FOR LR PER 10 CFR 54.4(a)(2)
- OUT OF SCOPE
- DENOTES SYSTEM BOUNDARY BREAK

LR - SYSTEMS
CC - COMPONENT COOLING
DE - WATER TREATMENT
HS - HEATING SYSTEM
VC - CHEMICAL AND VOLUME CONTROL
CG - MISCELLANEOUS GAS
WD - WASTE DISPOSAL

REFERENCE XH-1001-128 REV. E

This map / document is a tool to assist employees in the performance of their jobs. Your personal safety is provided for by using safety practices, procedures and equipment as described in safety training programs, manuals and SPAR's.

REVISIONS

0	DRAWN BY: JLB DATE: 5-7-07 PREPARED BY: WJO DATE: 5-7-07 REVIEWED BY: SRM DATE: 5-7-07	
1	HIGHLIGHTED CC LINES (and) & REMOVED LR FROM REFERENCE DWG. DRAWN BY: JLB DATE: 9-5-07 PREPARED BY: WJO DATE: 9-5-07 REVIEWED BY: SRM DATE: 9-14-07	
2	REVISED (a)(2)/OUT OF SCOPE BOUNDARY DRAWN BY: JLB DATE: 10-05-07 PREPARED BY: WJI DATE: 10-05-07 REVIEWED BY: SRM DATE: 10-08-07	

DWN	DATE							
S.O. NO.								
VENDOR NO.								
Q.A. TYPE								
SIZE								
SIGNIFICANT NO.	8630				1	M290 9010	3	9300
GROUP	1	2	3	4	5	CL	6	

LICENSE RENEWAL BOUNDARY DWG
BORIC ACID EVAP. & GAS STRIPPER FLOW DIAGRAM

NORTHERN STATES POWER COMPANY
Xcel Energy
PRAIRIE ISLAND NUCLEAR GENERATING PLANT
RED WING, MINNESOTA

SCALE NTS REV 2

LR-XH-1001-128

LR-XH-1001-128.DGN NSP GENERATION CAD

$$$USERNAME$$$ $$$$