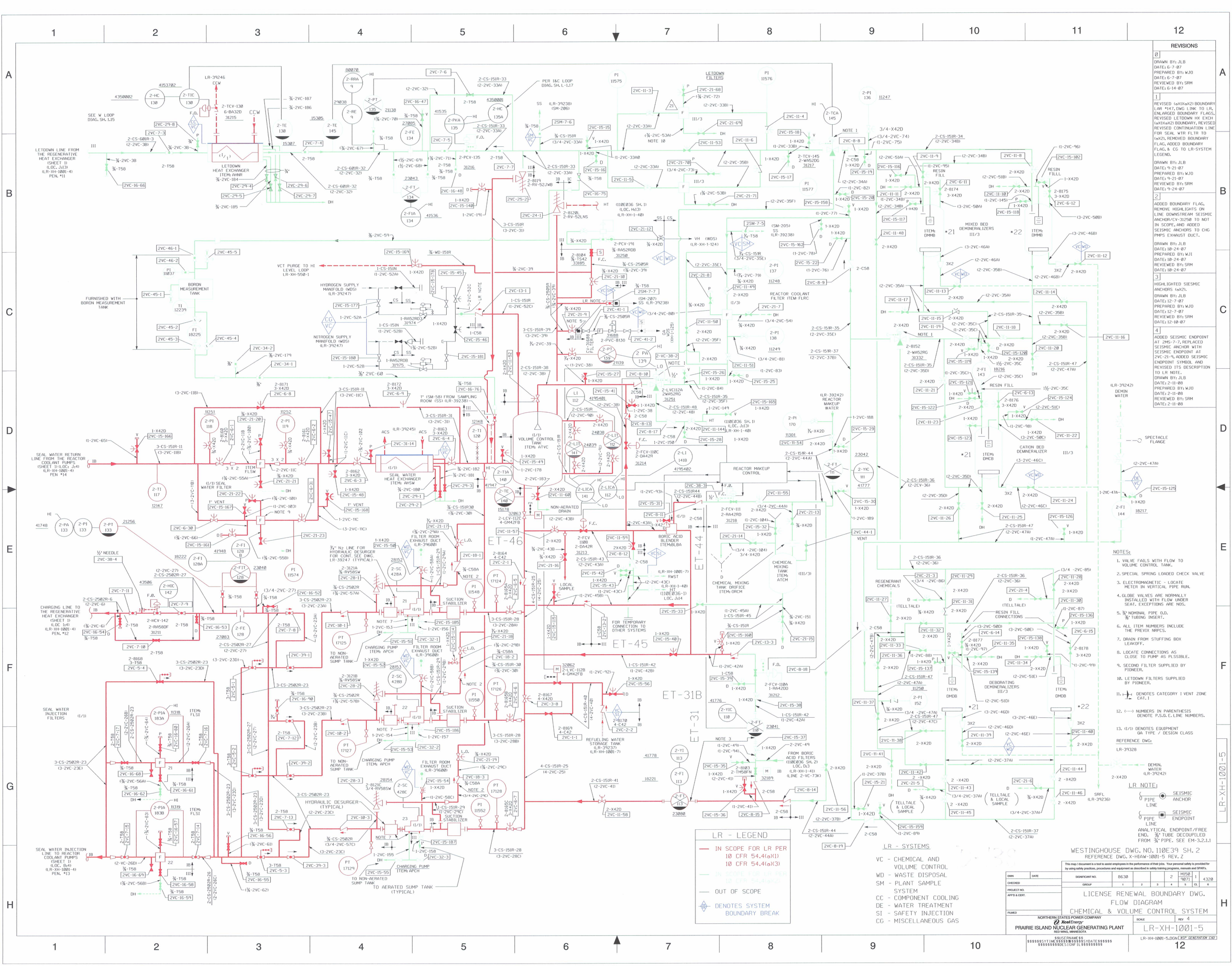
REVISIONS
0
DRAWN BY: JLB
DATE: 6-7-07
PREPARED BY: WJO
DATE: 6-7-07
REVIEWED BY: SRM
DATE: 6-14-07
1
REVISED (a)X1(a)X(2) BOUNDARY LAR *147, DWG LINK TO LR, ENLARGED BOUNDARY FLAGS, REVISED LETDOWN HX EXCH. (a)X1(a)X(2) BOUNDARY, REVISED REVISED CONTINUATION LINE FOR SEAL WTR FLTR TO (a)X(2), REMOVED BOUNDARY FLAG, ADDED BOUNDARY FLAG, & CG TO LR-SYSTEM LEGEND.
DRAWN BY: JLB
DATE: 9-21-07
PREPARED BY: WJO
DATE: 9-21-07
REVIEWED BY: SRM
DATE: 9-24-07
2
ADDED BOUNDARY FLAG, REMOVE HIGHLIGHTS ON LINE DOWNSTREAM SEISMIC ANCHOR/CV-31250 TO NOT IN SCOPE, AND ADDED SEISMIC ANCHORS TO CHG PMPS EXHAUST DUCT.
DRAWN BY: JLB
DATE: 10-24-07
PREPARED BY: WJI
DATE: 10-24-07
REVIEWED BY: SRM
DATE: 10-24-07
3
HIGHLIGHTED SIESMIC ANCHORS (a)X(2).
DRAWN BY: JLB
DATE: 12-7-07
PREPARED BY: WJO
DATE: 12-7-07
REVIEWED BY: SRM
DATE: 12-10-07
4
ADDED SEISMIC ENDPOINT AT 2MS-7-7, REPLACED SEISMIC ANCHOR WITH SEISMIC ENDPOINT AT 2VC-21-9, ADDED SEISMIC ENDPOINT SYMBOL AND REVISED ITS DESCRIPTION TO LR NOTE.
DRAWN BY: JLB
DATE: 2-11-08
PREPARED BY: WJO
DATE: 2-11-08
REVIEWED BY: SRM
DATE: 2-11-08
LETDOWN LINE FROM THE REGENERATIVE HEAT EXCHANGER (SHEET 1) (LOC. J:13) (LR-XH-1001-4) PEN. *11
LETDOWN HEAT EXCHANGER ITEM: AHNR
SEE W LOOP DIAG. SH. 1.15
LETDOWN FILTERS
REACTOR COOLANT FILTER ITEM: FLRC
MIXED BED DEMINERALIZERS III/3
RESIN FILL
CATION BED DEMINERALIZER III/3
DEBORATING DEMINERALIZERS III/3
REACTOR MAKEUP CONTROL
CHEMICAL MIXING TANK ITEM: ATCM
CHEMICAL MIXING TANK ORIFICE ITEM: ORCM
REGENERANT CHEMICALS
VOLUME CONTROL TANK ITEM: ATVC
BORON MEASUREMENT TANK
FURNISHED WITH BORON MEASUREMENT TANK
SEAL WATER RETURN LINE FROM THE REACTOR COOLANT PUMPS (SHEET 1) (LOC. J:4) (LR-XH-1001-4) PEN *14
SEAL WATER INJECTION LINE TO REACTOR COOLANT PUMPS (SHEET 1) (LOC. B:4) (LR-XH-1001-4) PEN. *13
CHARGING LINE TO THE REGENERATIVE HEAT EXCHANGER (SHEET 1) (LOC. I:4) (LR-XH-1001-4) PEN. *12
SEAL WATER INJECTION FILTERS (1/1)
(1/1) SEAL WATER FILTER
SEAL WATER HEAT EXCHANGER ITEM: AHSW
NON-AERATED DRAIN
LOCAL SAMPLE
HYDROGEN SUPPLY MANIFOLD (WDS) (LR-39247)
NITROGEN SUPPLY MANIFOLD (WDS) (LR-39247)
VCT PURGE TO HI LEVEL LOOP LR-XH-550-1
REFUELING WATER STORAGE TANK (LR-39237) (LR-XH-1001-7)
FROM BORIC ACID FILTERS (110E036 SH. 2) LOC. D:3 (LR-XH-1-41) (LINE 2"-VC-73K)
BORIC ACID BLENDER ITEM: BLBA
FOR TEMPORARY CONNECTION TO OTHER SYSTEMS
1" (SM-58) FROM SAMPLING ROOM (SS) (LR-39238)
1" VENT
1/2" NEEDLE
3/4" N2 LINE FOR HYDRAULIC DESURGER FOR CONT. SEE DWG. LR-39247 (TYPICAL)
HYDRAULIC DESURGER (TYPICAL)
FILTER ROOM EXHAUST DUCT (LR-39600)
CHARGING PUMP ITEM: APCH
TO NON-AERATED SUMP TANK
TO AERATED SUMP TANK (TYPICAL)
SUCTION STABILIZER
ET-46
ET-45
ET-44
ET-31B
ET-31
(LR-39242) REACTOR MAKEUP WATER
(LR-39242) DEMIN WATER
SPECTACLE FLANGE
SEISMIC ANCHOR
SEISMIC ENDPOINT
ANALYTICAL ENDPOINT/FREE END. 3/8" TUBE DECOUPLED FROM 3/4" PIPE. SEE EM-3.2.1.1
NOTES:
1. VALVE FAILS WITH FLOW TO VOLUME CONTROL TANK.
2. SPECIAL SPRING LOADED CHECK VALVE
3. ELECTROMAGNETIC - LOCATE METER IN VERTICAL PIPE RUN.
4. GLOBE VALVES ARE NORMALLY INSTALLED WITH FLOW UNDER SEAT. EXCEPTIONS ARE NOS.
5. 3/4" NOMINAL PIPE O.D. 3/8" TUBING INSERT.
6. ALL ITEM NUMBERS INCLUDE THE PREVIX NRPCS.
7. DRAIN FROM STUFFING BOX LEAKOFF.
8. LOCATE CONNECTIONS AS CLOSE TO PUMP AS PLSSIBLE.
9. SECOND FILTER SUPPLIED BY PIONEER.
10. LETDOWN FILTERS SUPPLIED BY PIONEER.
11. DENOTES CATEGORY I VENT ZONE CAT. I
12. (---) NUMBERS IN PARENTHESIS DENOTE P.S.G.E. LINE NUMBERS.
13. (1/1) DENOTES EQUIPMENT QA TYPE / DESIGN CLASS
REFERENCE DWGs
LR-39328
LR NOTE:
LR - 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
VC - CHEMICAL AND VOLUME CONTROL
WD - WASTE DISPOSAL
SM - PLANT SAMPLE SYSTEM
CC - COMPONENT COOLING
DE - WATER TREATMENT
SI - SAFETY INJECTION
CG - MISCELLANEOUS GAS
WESTINGHOUSE DWG. NO. 110E39 SH. 2
REFERENCE DWG. X-HIAW-1001-5 REV. Z
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.
SIGNIFICANT NO. 8630
M150 9071 1 4320
DRAWN DATE
CHECKED
PROJECT NO.
APP'D & CERT.
FILMED
LICENSE RENEWAL BOUNDARY DWG.
FLOW DIAGRAM
CHEMICAL & VOLUME CONTROL SYSTEM
NORTHERN STATES POWER COMPANY
XcelEnergy
PRAIRIE ISLAND NUCLEAR GENERATING PLANT
RED WING, MINNESOTA
SCALE
REV 4
LR-XH-1001-5
$$USERNAME$$
$$$$$$SYTIME$$$$$$$$$SYDATE$$$$$$
$$$$$$$$$DESIGNFIL$$$$$$$$$
LR-XH-1001-5.DGN
NSP GENERATION CAD