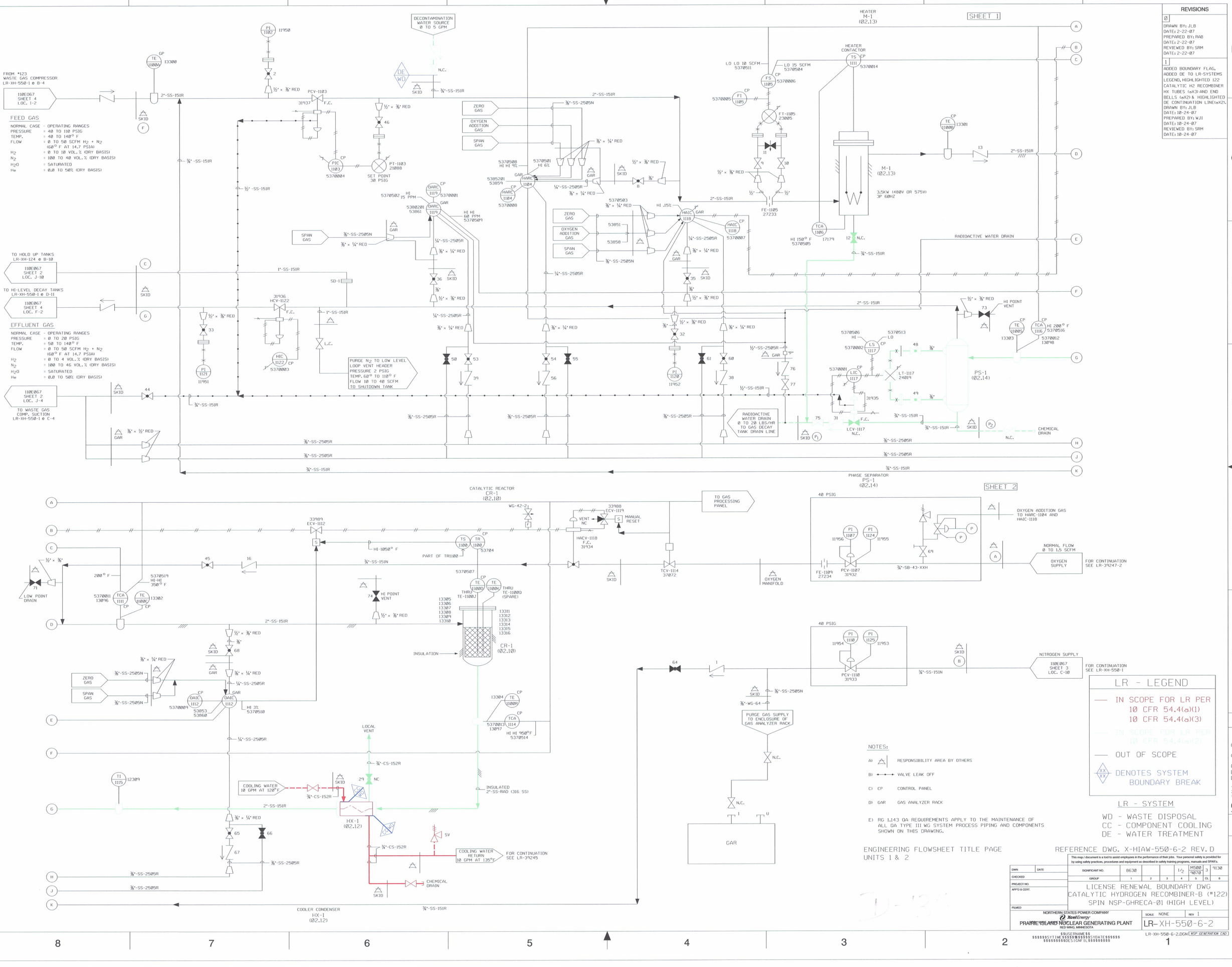
REVISIONS
Ø
DRAWN BY: JLB
DATE: 2-22-07
PREPARED BY: RAB
DATE: 2-22-07
REVIEWED BY: SRM
DATE: 2-22-07
1
ADDED BOUNDARY FLAG, ADDED DE TO LR-SYSTEMS LEGEND, HIGHLIGHTED I22 CATALYTIC H2 RECOMBINER HX TUBES (øX3) AND END BELLS (øX2) & HIGHLIGHTED DE CONTINUATION LINE(øX2). DRAWN BY: JLB
DATE: 10-24-07
PREPARED BY: WJI
DATE: 10-24-07
REVIEWED BY: SRM
DATE: 10-24-07
SHEET 1
SHEET 2
FROM #123 WASTE GAS COMPRESSOR LR-XH-550-1 ø B-4
110E067 SHEET 4 LOC. I-2
FEED GAS
NORMAL CASE - OPERATING RANGES
PRESSURE = 40 TO 110 PSIG
TEMP. = 40 TO 140° F
FLOW = Ø TO 50 SCFM H2 + N2 (60° F AT 14.7 PSIA)
H2 = Ø TO 10 VOL.% (DRY BASIS)
N2 = 100 TO 40 VOL.% (DRY BASIS)
H2O = SATURATED
He = Ø.Ø TO 50% (DRY BASIS)
TO HOLD UP TANKS LR-XH-124 ø B-10
110E067 SHEET 2 LOC. J-10
TO HI-LEVEL DECAY TANKS LR-XH-550-1 ø D-11
110E067 SHEET 4 LOC. F-2
EFFLUENT GAS
NORMAL CASE - OPERATING RANGES
PRESSURE = Ø TO 20 PSIG
TEMP. = 50 TO 140° F
FLOW = Ø TO 50 SCFM H2 + N2 (60° F AT 14.7 PSIA)
H2 = Ø TO 4 VOL.% (DRY BASIS)
N2 = 100 TO 46 VOL.% (DRY BASIS)
H2O = SATURATED
He = Ø.Ø TO 50% (DRY BASIS)
110E067 SHEET 2 LOC. J-4
TO WASTE GAS COMP. SUCTION LR-XH-550-1 ø C-4
DECONTAMINATION WATER SOURCE Ø TO 5 GPM
PURGE N2 TO LOW LEVEL LOOP VENT HEADER PRESSURE 2 PSIG TEMP. 60° TO 110° F FLOW 10 TO 40 SCFM TO SHUTDOWN TANK
RADIOACTIVE WATER DRAIN Ø TO 20 LBS/HR TO GAS DECAY TANK DRAIN LINE
RADIOACTIVE WATER DRAIN
CHEMICAL DRAIN
HEATER M-1 (Ø2.13)
M-1 (Ø2.13)
3.5KW (480V OR 575V) 3P 60HZ
PHASE SEPARATOR PS-1 (Ø2.14)
PS-1 (Ø2.14)
CATALYTIC REACTOR CR-1 (Ø2.10)
CR-1 (Ø2.10)
HX-1 (Ø2.12)
COOLER CONDENSER HX-1 (Ø2.12)
TO GAS PROCESSING PANEL
OXYGEN MANIFOLD
OXYGEN ADDITION GAS TO HARC-1104 AND HAIC-1118
NORMAL FLOW Ø TO 1.5 SCFM
OXYGEN SUPPLY
FOR CONTINUATION SEE LR-39247-2
NITROGEN SUPPLY
110E067 SHEET 3 LOC. C-10
FOR CONTINUATION SEE LR-XH-550-1
FOR CONTINUATION SEE LR-39245
PURGE GAS SUPPLY TO ENCLOSURE OF GAS ANALYZER RACK
GAR
ZERO GAS
OXYGEN ADDITION GAS
SPAN GAS
INSULATION
LOCAL VENT
HI POINT VENT
LOW POINT DRAIN
COOLING WATER 10 GPM AT 120°F
COOLING WATER RETURN 10 GPM AT 135°F
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
NOTES:
A) RESPONSIBILITY AREA BY OTHERS
B) VALVE LEAK OFF
C) CP CONTROL PANEL
D) GAR GAS ANALYZER RACK
E) RG 1.143 QA REQUIREMENTS APPLY TO THE MAINTENANCE OF ALL QA TYPE III WG SYSTEM PROCESS PIPING AND COMPONENTS SHOWN ON THIS DRAWING.
LR - SYSTEM
WD - WASTE DISPOSAL
CC - COMPONENT COOLING
DE - WATER TREATMENT
ENGINEERING FLOWSHEET TITLE PAGE
UNITS 1 & 2
REFERENCE DWG. X-HIAW-550-6-2 REV. D
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 SPAITs.
DWN DATE
CHECKED
PROJECT NO.
APP'D & CERT.
FILMED
SIGNIFICANT NO. 8630 M5Ø8Ø 9070 3 91.30
GROUP 1 2 3 4 5 CL 6
LICENSE RENEWAL BOUNDARY DWG
CATALYTIC HYDROGEN RECOMBINER-B (#122)
SPIN NSP-GHRECA-Ø1 (HIGH LEVEL)
NORTHERN STATES POWER COMPANY
Xcel Energy
PRAIRIE ISLAND NUCLEAR GENERATING PLANT
RED WING, MINNESOTA
SCALE NONE REV 1
LR-XH-550-6-2
$$USERNAME$$
$$$$$$SYTIME$$$$$$$$$$$$SYDATE$$$$$$
$$$$$$$$$DESIGNFIL$$$$$$$$$
LR-XH-550-6-2.DGN NSP GENERATION CAD