VENT TO ATMOSPHERE THRU ROOF

FROM TRAP SEE DWG. LR-39233

VENT SILENCERS

SAFETY RELIEF VALVES

CONDENSING CHAMBER (TYP)

FLOW NOZZLE (TYP)

*11 STEAM GENERATOR (1/1)

*12 STEAM GENERATOR (1/1)

CONTAINMENT VESSEL

SHIELD WALL

HOT PIPING PENETRATIONS EXP. BELLOWS

SEE LR-39233 AT GRID CO-ORD F-11

SEE LR-39233 AT GRID CO-ORD F-10

1" VENT & N_2 PURGE CONN. SEE LR-39247 (TYP)

1" VENTS

CROSS OVER PIPING SEE DWG. LR-39224 (TYP.)

TO SCAVENGING STEAM LINE SEE LR-39224 TYP. 4 PLACES

1A REHEATER (III/3)

1A MOISTURE SEPARATOR (III/3)

2A REHEATER (III/3)

2A MOISTURE SEPARATOR (III/3)

1B REHEATER (III/3)

1B MOISTURE SEPARATOR (III/3)

2B REHEATER (III/3)

2B MOISTURE SEPARATOR (III/3)

HEATER DRAIN PIPING SEE DWG. LR-39226 (TYP.)

TO UNIT 2 AIR REMOVAL SYSTEM NF-39219

TO TRAP FOR CONT. SEE DWG. LR-39233

*11 CONDENSER WTR. BOX EJECTOR (III/3)

*11 HOGGING JET (III/3)

*12 HOGGING JET (III/3)

AIR REMOVAL PIPING, SEE DWG. NF-39230

TURBINE GLAND STEAM PIPING SEE DWG. LR-XH-2-15 & 16

MOISTURE SPRTR & PREHEATER RELIEF HEADER SEE DWG. LR-39224 1B-2B

1A/2A

GLAND STEAM PRESS. REGULATING STATION. SEE DWG. LR-XH-2-16

EXHAUST TO ATMOS., SEE DWG. LR-39215

FROM *11 VACUUM TANK, SEE DWG. LR-39215

1" DRAIN TO TRAP, SEE DWG. LR-39233

FROM HEATING STEAM SYSTEM SEE DWG LR-39605-1

3" FROM MT6 STM. HDR SC6 LR-39605-1

1" DRAIN TO TRAP SEE DWG. LR-39233

1½" DRAIN TO TRAP SEE DWG. LR-39233

2" VENT, SEE DWG. LR-39230 (TYP.)

AIR REMOVAL SYSTEM SEE DWG. LR-39230 (TYP.)

*11 AIR EJECTOR (III/3)

1 ST. STAGE EJECTOR (TYP.)

2ND STAGE EJECTOR (TYP.)

DRAIN TO TRAP

2½" FROM HTL. STM HDR SEE LR-39605-1

3" VENT SEE LR-39230

1" DRAIN TO TRAP. SEE LR-39233

¾" TO TURBINE RM. SUMP PUMP SEE NF-39230

FOR EJECTOR PIPING SEE DWG. X-1IAW-6-6

8" TEMPORARY CONN. FOR CLEANING, CAP TO BE WELDED AFTER CLEANING IS COMPLETED. SEE NF-39229.

STEAM GENERATOR LEVEL CONTROL & ALARM PIPING ALL PIPING Q A TYPE TO BE IA

STOP VALVES (W)

H.P. TURBINE (III/3)

L.P. TURBINE (III/3)

IB CONDENSER (III/3)

IA CONDENSER (III/3)

SPRAY PIPE

12" STEAM BY PASS

1" SAMPLE CONN. SS-10 SEE DWG. LR-XH-248-1

1" SAMPLE CONN. SS-11 SEE DWG. LR-XH-248-1

1" DRAINS FROM STOP VALVES SEE DWG. LR-39233

20" EQUALIZING & BYPASS LINE

1" FREE FLOW TO CONDENSER SEE DWG. LR-39233

VENT TO ATMOSPHERE

EXHAUST HEAD

¼" DRAIN

TO ATMOSPHERE

6" RUPTURE DISC 25 P.S.I.G. BURST PRESSURE

THROTTLE VALVE

REGULATOR

TO WASTE NF-98894

AUX. FEEDWATER PIPING SEE DWG. LR-39222

"L" GLAND STEAM DRAIN

STM. RING DRAIN

CASING DRAIN

1/4" RESTRICTION ORIFICE (TYP)

FOR CONT. SEE LR-39233

*11 AUXILIARY FEEDWATER PUMP TURBINE DRIVEN (1/1) (REF. NF-39820)

DRAIN TO TRAP SEE LR-39233

DRAINS TO TRAPS SEE LR-39233

1" DRAIN TO TRAPS SEE DWG. LR-39233

1½" DRAIN TO TRAPS SEE DWG. LR-39233

REFERENCE PIPING DWG. NO'S.
SYSTEM: MAIN, AUXILIARY & BY-PASS STEAM PIPING: NF-39267-1, NF-39267-2, NF-39267-3, NF-39267-4, NF-98894.
SYSTEM: MAIN STEAM DUMP & RELIEF VALVE PIPING: NF-39281-1 AND NF-39281-2.
SYSTEM: AUXILIARY FEEDWATER PIPING: NF-39316-1, NF-39316-2, NF-39316-3, NF-39316-4.

NOTES:
1. CS4304S DELED. E/P DISCONNECTED & ABANDONED IN PLACE CV-31093 MANUALLY OPERATED ONLY.

LEGEND
(W) DENOTES FURNISHED BY WESTINGHOUSE CORP.
* DENOTES FURNISHED WITH EQUIPMENT.
(7) THRU (67) DENOTES CONDENSER TERMINAL CONNECTION NUMBER
DENOTES LIMITS OF O.A. TYPES
IA-IB-IIA-IIB-III DENOTES THE PIPING O.A. TYPES
(I/1)-(III/3) DENOTES THE EQUIPMENT O.A. TYPE/DESIGN CLASS
DENOTES CONTAINMENT PENETRATION

CAT I
DENOTES CATEGORY I VENTILATION ZONE.
DENOTES CONTAINMENT PENETRATION

LR - SYSTEMS
MS - MAIN STEAM
SG - STEAM GENERATOR
AF - AUXILIARY FEEDWATER
TB - TURBINE AND SUPPORT SYSTEMS
SM - PLANT SAMPLE SYSTEM
BL - BLEED STEAM
HS - HEATING SYSTEM
CD - CONDENSATE
CG - MISCELLANEOUS GAS
WD - WASTE DISPOSAL

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

D-02

REVISIONS

Ø
DRAWN BY: JLB
DATE: 4-30-07
PREPARED BY: WDR
DATE: 4-30-07
REVIEWED BY: SRM
DATE: 5-7-07

1
REVISED (aK2) BOUNDARY, ADDED BOUNDARY BREAKS, ENLARGED BOUNDARY FLAGS, HIGHLIGHTED INSTRUMENT PRESSURE BOUNDARIES, P-21035, TE-15055,1-PT-484, TE-15056, PI-11389 (aK3) UNHIGHLIGHTED COMPONENT TAGS & REVISE (aK3) LINES.
DRAWN BY: JLB
DATE: 9-12-07
PREPARED BY: WJI
DATE: 9-12-07
REVIEWED BY: SRM
DATE: 9-14-07

2
MECHANICAL CONNECTION FOR 11 TDAFWP HIGH-LIGHTED (aK1).
DRAWN BY: JLB
DATE: 11-07-07
PREPARED BY: WJI
DATE: 11-07-07
REVIEWED BY: SRM
DATE: 11-29-07

REFERENCE NF-39218 REV. BL

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 SPAPs.

SIGNIFICANT NO.	8630				1	4410	1	4221	
GROUP	1	2	3	4	5	CL	6		

DWN | DATE
CHECKED
PROJECT NO.
APP'D & CERT.
FILMED

LICENSE RENEWAL BOUNDARY DWG
MAIN AUXILIARY STEAM & STEAM DUMP
FLOW DIAGRAM - UNIT 1

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

SCALE NTS | REV 2

LR-39218

$$USERNAME$$
$$$$SYTIME$$$$$$$$$$$$SYDATE$$$$$$
$$$$$$$$$$DGESIGNFILE$$$$$$$$$$

LR-39218.DGN [MSP GENERATION CAD]

LR-39218