TURBINE CONN. Nº	LEGEND FOR STEAM PIPING DRAIN CONNECTIONS DESCRIPTION	CONDENSER CONN. Nº
21	DRAIN FROM STEAM INLET PIPE S	34
22	DRAIN FROM FIRST STAGE	34
23	DRAIN OUTER CYLINDER	34
25	DRAIN FROM GLAND STEAM SUPPLY VALVE HEADER	35
27	DRAIN FROM CROSS UNDER PIPE	34
28	LOW VACUUM TRIP	36
30	DRAIN FROM GLAND CONDENSER	37
44	STEAM LEAKOFF FROM PILOT VALVE ON STOP VALVE (R.H.)	37
45	STEAM LEAKOFF FROM PILOT VALVE ON STOP VALVE (L.H.)	
75	SPARES	39
—	STEAM TRAP DRAIN AIR EJECTOR	40
—	STEAM TRAP DRAIN MAIN STEAM	41
—	STEAM TRAP DRAIN AUX. STEAM	42
—	STEAM TRAP DRAIN BLEED STEAM	43
—	CONDENSATE RETURN FROM HEATING SYS.	44
26	DRAIN FROM CROSS UNDER PIPE TO MOISTURE SEPARATOR	
70	ROTOR GLAND STEAM SEAL SPILLOVER	70
36	DRAIN FROM CYLINDER HEATING STEAM SUPPLY	—
38	DRAIN FROM CYLINDER HEATING STEAM SUPPLY	—

STEAM LEAKOFF FROM PILOT VALVE ON STOP VALVE, SEE DWG. LR-XH-1002-43

LOW VACUUM TRIP

4" AUX. STEAM FOR DEAERATOR STEAM TO CONDENSER, SEE DWG. LR-39219

DEAERATOR STEAM TO CONDENSER, SEE DWG. LR-39219

¾" FROM HTG. SYST (ALTERNATE SUPPLY TO HOGGING JETS) FOR CONT. SEE LR-32919

MAIN STEAM DRAINS, SEE DWG. LR-39219

AUXILIARY STEAM, SEE DWG LR-39219

#21 HOGGING JETS

#22 HOGGING JETS

AUX STEAM TO HOGGING JETS SEE DWG. LR-39219

GLAND STEAM PRESS. REGULATING STATION SEE DWG. LR-39219 (E-7)

BLEED STEAM TO H.P. HEATERS, SEE DWG. LR-39225

TO #25A & #25B

TO #24A & #24B

GAGE GLASS (TYP.)

STEAM TRAP (TYP.)

STRAINER

H.P. TURBINE (III/3)

TO TURBINE BLDG. SUMP

TURB. GLD. STM. SUPPLY STRAINERS SEE DWG. LR-XH-1002-45

L.P. TURBINE (II/3)

L.P. TURBINE (III/3)

STEAM DRAIN & GLAND ASSY. SEE DWG. LR-XH-1002-45

TO HEATER DRAIN TANKS SEE DWG LR-39227

1" FREE BLOW

1½" CONTROL VALVES (TYP.)

TURBINE GLAND STEAM SUPPLY STRAINERS, SEE DWG. LR-XH-1002-44 (TYP.)

TURBINE GLAND STEAM SPILLOVER REGULATING STATION SEE DWG. LR-XH-1002-44

AUX. STEAM TO CONDENSER WATER BOX EJECTOR SEE DWG. LR-39219

21 AIR EJECTOR STEAM SEE DWG LR-39219

SEE PEN #44 ON 2A CNDSR DRWG LR-39227 ØH8

AUX. STEAM TO #22 AUX. F.W. PUMP SEE DWG. LR-39219

MAIN STEAM BY PASS SEE DWG. LR-39219

FOR CONT. SEE DWG LR-39219

STEAM RING DRAIN

⅛" ORIFICE OLD TRAP #12

#21 GLAND STEAM CONDENSER (III/3)

MOISTURE SEPARATOR REHEATER SUPPLY LINE SEE DWG. LR-39219

TURBINE CYLINDER HEATING SYSTEM DRAINS, SEE DWG. LR-XH-1002-45

MOISTURE SEPARATOR RELIEF VALVE HEADERS, SEE DWG LR-39225

30" TO HTR DR TANK # 21 FOR CONT. SEE DWG LR-39225

SIGHT GAGE

¼" ORIFICE

STM TRAP (TYP.)

CAP FOR FILL MEZZ. FLOOR

TELL TALE

TO FLOOR DRAIN

FLOAT TRAP

GAGE GLASS

2B CONDENSER (III/3)

2A CONDENSER (III/3)

FROM FLASH TANK STEAM LINE SEE DWG. LR-39250 (E-6)

FROM FLASH TANK STEAM LINE SEE DWG. LR-39250 (D-7)

6-25B-39

FROM #22 AUX STEAM TO AUX. F.W. PUMP TURBINE

MAIN STEAM DRAINS SEE DWG LR-39219

FROM 2B STEAM GENERATOR

FROM 2A STEAM GEN.

FROM #21 AUX. STEAM TO AUX. F.W. PUMP TURBINE

TO LOW SIDE DPI-17654 SEE LR-39219 @ GRID CO-ORD E-4

1" TO SAFETY RELIEF VENTS SEE DWG. LR-39219

TO FLOOR DRAIN

STEAM TRAP (TYP.)

TO LOWSIDE DPI-17653 SEE LR-39219 @ GRID CO-ORD E-2

2" TO TURBINE BLDG SUMP

HEATING SYSTEM LR-39605-1

REFERENCE PIPING DWG. NO'S.

SYSTEM: TURBINE & AUX. BLDG. TRAPS & DRAINS

NF-39311-1
NF-39311-2
NF-39311-3
NF-100034

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

LEGEND

- (W) DENOTES FURNISHED BY WESTING HOUSE CORP.
- 25 DENOTES STEAM TRAP
- DENOTES LIMITS OF Q.A. TYPES
- IA, IB, IIA, IIB & III - DENOTES THE PIPING Q.A. TYPES
- (II/3) (III/3) - DENOTES THE EQUIPMENT Q.A. TYPE/DESIGN CLASS
- CAT I DENOTES CATEGORY I VENTILATION ZONE
- DENOTES EXISTING SYSTEM TIE-IN.

LR - SYSTEMS

- MS - MAIN STEAM
- TB - TURBINE AND SUPPORT SYSTEMS
- HS - HEATING SYSTEM
- SB - STEAM GENERATOR BLOWDOWN
- BL - BLEED STEAM

REVISIONS

0	DRAWN BY: JLB DATE: 3-13-07 PREPARED BY: WJO DATE: 3-13-07 REVIEWED BY: SRM DATE: 3-13-07
1	REVISE PER (a)(2) BOUNDARY, ADD & ENLARGE BOUNDARY FLAGS, CHANGE REFERENCE DWGS FROM LR TO NF, REVISE PENE #'S TO 2B CONDENSER, ADD HILITE TO OPERATORS FOR CV-31665 & CV-31666 & CORRECT BOUNDARY FLAGS DRAWN BY: JLB DATE: 7-16-07 PREPARED BY: WJO DATE: 7-16-07 REVIEWED BY: SRM DATE: 7-23-07
2	REVISED MS CONTINUATION LINES DOWNSTREAM OF MSIVS TO (a)(3). DRAWN BY: JLB DATE: 9-7-07 PREPARED BY: WJI DATE: 9-7-07 REVIEWED BY: SRM DATE: 9-14-07

REFERENCE NF-39234 REV. 76

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

DWN	DATE	SIGNIFICANT NO.	8630			2	4418	1	5343
CHECKED		GROUP	1	2	3	4	5	CL	6
PROJECT NO.									
APPD & CERT.									
FILMED									

LICENSE RENEWAL BOUNDARY DWG
FLOW DIAGRAM
TURBINE BUILDING TRAPS AND DRAINS

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

SCALE NONE | REV 2

LR-39234

ACCOUNT Nº 32-63-2-12

LR-39234.DGN [NSP GENERATION CAD]

D-034

LR-39234