LRM-350

REVISION

INSIDE CONTAINMENT | OUTSIDE CONTAINMENT

OUTSIDE PRIMARY COMPARTMENT | INSIDE PRIMARY COMPARTMENT

14" BLIND FLG W/DOUBLE O RINGS & TEST TAP

PT 17023

CPT-60 (OPEN)

SHIELD BLD'G 0" BLIND FLANGE (TYP 2 PLCS)

CPT-50 (RELOCATED)

CPT-40

10"

CONTAINMENT VESSEL TEST LINE (10 NON-SV ZONE)

3/8" CONN FOR TEMPORARY ROTOMETERS

'REMOVABLE SPOOL' NOTE REMOVABLE SPOOL SHOWN IN PLACE FOR CONTAINMENT PRESSURIZATION TEST REMOVE SPOOL AFTER TEST AND INSTALL 0"-150# BLIND FLANGE W/GASKET & BOLT TO EACH OPEN END OF PIPE.

FOR CONT. SEE OPER, M-533

SEE DETAIL "B" TEMPORARY CONNECTION FOR CONTAINMENT REFUELING LOOP SEAL.

SHIELD BLDG

CPT-60 (OPEN)

CPT-70

HOSE CONN.

LR NOTE 5

NOTE: USE LIMITED TO WHEN REACTOR IS IN THE COLD SHUTDOWN OR REFUELING SHUTDOWN CONDITION

REFUELING LOOP SEAL DETAIL "B"

LOC A-3

TO WASTE GAS COMP. PKG'S LRXK-100-132 (C-1)

WG-305 A

MD(R)-315

MD(R)-316-1

SITE GLASS

MD(R)-316-2 1"X 3/4" RED. BUSHING AT TEE

MD(R)-315-1

TO FLOOR DRAIN

DEAERATED DRAINS TANK

DETAIL "A"

FROM LETDOWN HEAT EXCHANGER SEE CV DIAGRAM X-K100-26 (A-5)

TO RESIDUAL HEAT EXCHANGER #1A SEE RHR DIAGRAM X-K100-1B (D-7)

FROM RESIDUAL HEAT EXCHANGER #1A SEE RHR DIAGRAM X-K100-1B (C-5)

OPERXK-100-18 (B-4)

OPERXK-100-18 (C-4)

RHR-59A RHR-59B RHR-10A RHR-10B

RHR-57A RHR-58A RHR-8A RHR-9A

LD-61 LD-10

RHR-58A RHR-54A RHR-100A RHR-7A

OPERXK-100-18 (E-8)

REFUELING WATER TRANSFER LINE

RHR-62 RHR-56 RHR-110 RHR-101

RESIDUAL HEAT REMOVAL PUMPS DISCHARGE SEE RHR DIAGRAM X-K100-1B (E-7)

OPERXK-100-18 (E-9)

RHR-55B RHR-54B RHR-100B RHR-7B

TO RESIDUAL HEAT EXCHANGER #1B SEE RHR DIAGRAM X-K100-1B (D-10)

OPERXK-100-18 (B-4)

RHR-58B RHR-57B RHR-9B RHR-8B

FROM RESIDUAL HEAT EXCHANGER #1B SEE RHR DIAGRAM X-K100-1B (C-5)

SPENT FUEL POOL POST FILTER(M218)

SPENT FUEL POOL PRE-FILTER(M218)

SPENT FUEL POOL FILTERS (M218)

FPC-70

SPENT FUEL POOL PUMPS (M218)

FPC-2B 1B FPC-2A 1A FPC-29D FPC-23D FPC-40A FPC-40B

FPC-80

SPENT FUEL POOL HEAT EXCHANGER(M218)

FPC-15

MD(R)-306C MD(R)-306B MD(R)-307B MD(R)-306A MD(R)-307A

3 (TYP)

CVC-307A CVC-307B CVC-307C

MD(R)-307C

BALCONY EL. 622'-3"

TO HOLD UP TANKS SEE CV DIAGRAM X-K100-57 (A-4)

LR NOTE 1

DEMINERALIZERS

SEE CV DIAGRAM X-K100-36

SEE CV DIAGRAM X-K100-57

SEE CV DIAGRAM X-K100-58

MIXED BED #2

MIXED BED #1

CATION BED

DEGAS #2

DEGAS #1

EVAPORATOR FEED DEMIN #2

EVAPORATOR FEED DEMIN #1

SPENT FUEL POOL (M218)

EVAPCOOLD #2

EVAPCOOLD #1

SPENT RESIN DISCH VENT DRAIN

DEMINERALIZED WATER SUPPLY XK100-364 & M209 sh.2 (C-11)

DEMINERALIZED WATER SUPPLY XK100-364 & M209 sh.2 (C-9)

LRXK-100-131 (C-4)

DRAINS FROM DEBOR. DEMINS, & EVAP. COND. DEMINS. SEE WD DIAGRAM X-K100-13A

LETDOWN HEAT EXCHANGER SEE CV DIAGRAM X-K100-36 (B-2)

RESIDUAL HEAT EXCHANGER #1A SEE RHR DIAGRAM X-K100-1B (D-7)

MD(R)-272 MD(R)-271 MD(R)-270 MD(R)-273 MD(R)-231A

MD(R)-231 MD(R)-250A MD(R)-230

SHIELD BLDG.

SLEEVE NO.66

TURN ON OR OFF ANNULUS SUMP #1B PUMP

LA 16688 LA 16689

A 47032 P HIGH LEVEL

MEZZANINE FLR. EL. 606'-0"

ES 46614

ANNULUS SUMP PUMP #1B (WEST)

1/8" DIA HOLE FOR SELF PRIMING

FROM SOLID WASTE METERING TANK DEWATERING PUMP SEE M-382 LRM-395 (G-6)

SHIELD BLDG.

REACTOR COOLANT DRAIN PUMPS 1A & 1B DISCHARGE, SEE WD DIAGRAM X-K100-131

LR NOTE 2

SLEEVE NO.65

CONTAINMENT SUMP "A" PUMPS 1A & 1B DISCHARGE, SEE WD DIAGRAM X-K100-131

TURN ON OR OFF ANNULUS SUMP #1A PUMP

HIGH LEVEL A 47032 P LA 16686 LA 16687

MD(R)-121 MD(R)-120

ES 46613

ANNULUS SUMP PUMP #1A (EAST)

CLEAN OUT

8" DIA. HOLE FOR SELF PRIMING

RESIDUAL HEAT EXCHANGER #1B SEE RHR DIAGRAM X-K100-1B (D-9)

SEAL WATER HEAT EXCHANGER SEE CV DIAGRAM X-K100-36 (E-4)

LRXK-100-131 (F-10) AUTOMATIC GAS ANALYZER SEE WD DIAGRAM X-K100-131

LRXK-100-131 (E-7) SEAL WATER FILTER SEE CV DIAGRAM X-K100-57

LRXK-100-36 (C-9) SEAL WATER FILTER SEE CV DIAGRAM X-K100-36

SEAL WATER INJECTION FILTER #1A SEE CV DIAGRAM X-K100-36

SEAL WATER INJECTION FILTER #1B SEE CV DIAGRAM X-K100-36

LETDOWN PURIFIER FILTER SEE CV DIAGRAM X-K100-36

LRXK-100-36 (A-9)

MD(R)-260 MD(R)-261 MD(R)-262

MD(R)-250B MD(R)-251B

MD(R)-240

DRAIN HEADER NO 1

DRAIN HEADER NO 3

DRAIN HEADER NO 4

DRAIN HEADER NO 6

DRAIN HEADER NO 2

FOR CONT SEE (K100-44) LRXK-100-44 (A-11)

CLEAN OUT

3/4" X 3/8" TUBING INSERT

MD(R)-241

SEE LOC. G-8

RHR-70

FLOOR DRAIN SEE M671

OPERXK-100-36 (H-2)

CHARGING PUMPS DISCHARGE HDR SEE CV DIAGRAM OPERXK-100-36 (E-1)

CVC-60 CVC-7

CVC 200-1 CV31688 CVC 200

REACTOR COOLANT FILTER OUTLET SEE CV DIAGRAM X-K100-36 LRXK-100-36 (C-8)

LD-51 LD-27

SV-33685 MD(R)-206B

SV-33684 MD(R)-206A

SV-33689 MD(R)-205

MD(R)-204

FROM HOLD-UP TANKS SEE X-K 100-37

SEE LRXK-100-37 (D-4)

FROM SEDT ION EXCHG. & FILTERS (SEE M-368) & FROM FUEL POOL FILTERS & HEAT EXCHANGER (SEE M-218)

LRXK-100-131 (E-5)

2-WD-1512-14

WASTE CONDENSATE RECIRC. SEE WD DIAGRAM X-K100-151 LRXK-100-131 (G-5)

WD-302 WD-311

CLEAN OUT

MD(R)-221B MD(R)-220B MD(R)-221A

TURN ON OR OFF SUMP PUMPS

LA 16675 LA 16676

A 47033 P HIGH LEVEL

MD(R)-220A

35MT. FLR EL. 586'-0"

WASTE AREA SUMP PUMPS

PLUMBING SEE M672

1/8" DIA. HOLES FOR SELF PRIMING

LR NOTE 3

NOTE: INSTALL SOLENOID VALVES IN DIRECTION OF ARROW

LEGEND

NOTE: ALL ITEMS QA TYPE 3 EXCEPT AS INDICATED.

NON-5V ZONE | 5V ZONE

M-350

TO REACTOR VESSEL SEE RHR DIAGRAM X-K100-1B (F-1)

RTD LOOP "B" SEE RC DIAGRAM X-K100-10 LRXK-100-10 (H-1)

RTD LOOP "A" SEE RC DIAGRAM X-K100-10 LRXK-100-10 (E-11)

RC-103B RC-103A

RHR-11 RC-60B PS-1A LRXK-100-10 (E-5) TO PRESSURIZER RELIEF SEE RC DIAGRAM X-K100-10

RHR-60B SI-302A P5-60B FLR. EL. 606'-0" SI-51A

TO REACTOR VESSEL SEE SI DIAGRAM X-K100-28 LRXK-100-28 (G-3)

PS-1B TO PRESSURIZER SEE RC DIAGRAM X-K100-10 LRXK-100-10 (E-5)

TO PRESSURIZER RELIEF TANK, SEE RC DIAGRAM X-K100-10 (D-11) LRXK-100-10 (D-1)

PR-60A PR-60B PR-1A PR-1B

FLR EL 606'-0"

SI-518 SI-302B SI-51B RHR-51B RHR-51A

TO REACTOR VESSEL SEE SI DIAG. X-K100-28 (H-4)

RHR-50B RC-60A PS-60A RHR-50A LD-52

RHR-2B RHR-1B RHR-2A RHR-1A

RESIDUAL HEAT REMOVAL PUMP SUCTION SEE RHR DIAGRAM X-K100-1B (G-1)

OPERXK-100-18 (G-1)

PRESSURIZER RELIEF TANK

RC61 PR-40

LEAK-OFF INLET TO REACTOR COOLANT DRAIN PUMPS SEE RC DIAGRAM X-K100-10 (B-6)

LD-501

FLR. EL. 592'-0"

EXCESS LETDOWN HEAT EXCHANGERS OUTLET SEE CV DIAGRAM X-K100-35 (B-4)

CONTAINMENT SUMP "B"

SI-550A SI-551A SI-558A SI-558B SI-551B SI-550B

RHR-4A RHR-4B RHR-6A RHR-6B RHR-53A RHR-53B RHR-54A RHR-54B RHR-52A RHR-52B

TO RHR PUMP SUCTION X-K100-1B (F-5) (G-3)

TO RHR PUMP SUCTION OPERXK-100-28 (H-9)

RHR PUMP DISCHARGE SEE RHR DIAGRAM X-K100-1B (F-8) (G-10)

RHR PUMP FLUSHING OUTLETS SEE RHR DIAGRAM X-K100-1B

FUNNEL

RHR PUMP PIT 1A

RHR PUMP PIT 1B

TURN PUMP ON

TURN PUMP OFF

LA 16719 LA 16718 LA 16720 LA 16721

SIGHT GLASS

4" STANDPIPE

SEE M-539

SEE M-539 LRM-539 (F-8)

DEAERATED DRAINS TANK

MD(R)-315A

MD(R)-201A MD(R)-201B

SUMP CONTROL

LA 16695 LA 16696

PUMPS SEAL LEAK-OFF SEE M-539

LRM-539 (H-5)

TURN ON OR OFF SUMP PUMP 1B

MD(R) 280B SV-33551

AIR SUPPLY

SV-33550 CV 3041 CV 3042

PLUMBING SEE M671

DDT ROOM DRAIN SEE NOTE #4

RESIDUAL HEAT REMOVAL PUMPS

SUMP TANK

MD(R)-212B MD(R)-212A MD(R)-211B MD(R)-211A MD(R)-210B MD(R)-210A MD(R)-214

MD(R)-303 MD(R)-304 MD(R)-302

MD(R)-301 ES 46612

MD(R)-202B MD(R)-202A

MD(R) 203B MD(R) 202B

LA 16693 LA 16694

TURN ON OR OFF SUMP PUMP 1A

EL. 564'-6" F.O.

RHR PUMP PIT SUMP PUMPS

SUMP TANK PUMPS SEE WD DIAGRAM X-K100-151 LRXK-100-131 (H-5)

NOTE 2: ROOT VALVE NUMBERS WILL NOT BE SHOWN ON THIS DRAWING. THE OPERATION VALVE NUMBER CONTAINS THE SYSTEM DESIGNATOR FOLLOWED BY THE INSTRUMENT NUMBER (I.E. SW-11007).

NOTE 3: DCR 2920 RENUMBERED VALVES, RHR-300A BECAME RHR-299A & RHR-300B BECAME RHR-299B.

NOTE 4: DRAIN PLUGGED AND GROUTED OVER.

LR NOTES:

1. DEMINERALIZER WATER SUPPLY IS USED FOR SPENT RESIN FLUSHING. FOR LR PURPOSES THESE LINES ARE INCLUDED IN SYSTEM 35/CVC CHEMICAL & VOLUME CONTROL.
2. QA-1 STOPS AT VALVES RC-508 (E-4) AND MD(R)-135 (G-4) ON LRXK-100-131.
3. THE SUMP IS COVERED, THEREFORE THE PUMPS DO NOT REPRESENT A SPATIAL CONCERN.
4. FOR LR PURPOSES, MANY COMPONENTS WITH A 'MD(R)' SYSTEM DESIGNATOR IN THEIR EQUIPMENT NUMBER, HAVE BEEN ASSIGNED TO EITHER THE LIQUID WASTE OR GASEOUS WASTE PROCESSING AND DISCHARGE SYSTEMS. THIS WAS DONE IN ORDER TO MAINTAIN CONSISTENCY WITH THE USAR AND SYSTEM DESCRIPTIONS.
5. THE LOOP SEALS PROVIDE CONTAINMENT INTEGRITY DURING REFUELING. HOWEVER, AS INDICATED IN USAR SECTION 14.2.1.3, NO CREDIT IS TAKEN FOR ISOLATION OF CONTAINMENT FOR A FUEL HANDLING ACCIDENT WITHIN CONTAINMENT.

LICENSE RENEWAL DRAWING LEGEND

- 32A/WD-(L) LIQUID WASTE PROCESSING AND DISCHARGE
- 18/RBV REACTOR BUILDING VENTILATION
- 21/SFP SPENT FUEL POOL COOLING
- 27A/MUP MAKE-UP AND DEMINERALIZED WATER
- 30/MDS MISCELLANEOUS DRAINS AND SUMPS
- 32B/WD-(G) GASEOUS WASTE PROCESSING AND DISCHARGE
- 33/SI SAFETY INJECTION
- 34/RHR RESIDUAL HEAT REMOVAL
- 35/CVC CHEMICAL & VOLUME CONTROL
- 36/RC REACTOR COOLANT

IN SCOPE FOR LR PER 10CFR 54.4 (a) (2)

IN SCOPE FOR LR PER 10CFR 54.4 (a) (1) 10CFR 54.4 (a) (3)

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION

LICENSE RENEWAL DRAWING
REACTOR PLANT MISC. VENTS, DRAINS & SUMP PUMP PIPING

HYBRID CADD	APPROVED	DRAWN JSV 12/20/06	DWG. No. LRM-350	REV. 0
	REVIEWED	SCALE		

REFERENCED PER MASTER DRAWING OPERM-350 REV AV

REV "AV" PER LAST UPDATE

jeffrol 22-JUL-2008 11:01 LRM-350.LRM