DWG.NO. MC-ISIN-1571-01.00 REV. 0

REFUELING WATER PIPE TRENCH SUMP A

REFUELING WATER PIPE TRENCH SUMP B

REFUELING WATER RECIRCULATION PUMP

SIS CHECK VALVE TEST LINE

SAFETY INJECTION PUMP

SPRAY PUMP TEST LINE

BORIC ACID BLENDER

WASTE EVAP. FEED TK. SUMP A

SPENT FUEL POOL

REFUELING WATER STORAGE TANK

395,000 GALS
350,000 GALS
USABLE

PRIMARY SAMPLE SINK

FUEL POOL COOLING PRE-FILTER

FUEL POOL COOLING POST FILTER

REACTOR COOLANT DRAIN TK. PUMPS

REACTOR COOLANT DRAIN TANK HX.

RECYCLE EVAP. FEED FILTERS OR PUMPS

SPENT FUEL POOL MAKEUP

REFUELING CAVITY

SEE NOTE 1 (TYP. 5 PLACES)

CONTAINMENT SPRAY PUMP 1B

CONTAINMENT SPRAY PUMP 1A

RHR. RETURN HEADER

CONTAINMENT SPRAY ROOM SUMP

RHR. PUMPS

CENTRIFUGAL CHARGING PUMP

RECIPROCATING CHARGING PUMP

SAFETY INJECTION PUMPS

NON-HPI

NON-ECCS

FW-001A
FW-001B
FW-001C
FW-001D
FW-002
FW-003
FW-004
FW-005
FW-006
FW-007
FW-008
FW-009
FW-010
FW-011
FW-012
FW-013
FW-014
FW-015
FW-016
ND-003A

TYP. 5 PLACES

NOTES:

1. THIS PIPING IS INACCESSABLE AND EXEMPT PER IWC-1223.
2. PIPING SHOWN IN BLUE IN THE FOLLOWING LINE LISTINGS IS EXEMPT PER IWC-1221(a)(1): FW01, FW02.
3. PIPING SHOWN IN BLUE IN THE FOLLOWING LINE LISTINGS IS EXEMPT PER IWC-1222(a): FW05, FW08, FW16, FW17.
4. PIPING SHOWN IN BLUE IN THE FOLLOWING LINE LISTINGS IS EXEMPT PER IWC-1222(c): FW08.
5. PIPING SHOWN IN BLUE IN THE FOLLOWING LINE LISTINGS IS EXEMPT PER IWD-1220(a)(1): FW19, KF22.
6. WELD ISO & MATH MODEL DRAWING REFERENCES ARE APPROXIMATE AND ARE FOR INFORMATION ONLY.
7. NO SUPPORT/RESTRAINTS ON MCSRD FW01 PER NOTE FROM SECOND INTERVAL.

REFERENCE FLOW DIAGRAM
MCFD-1571-01.00 REV. 11
ERN:MC0099XE

DESIGN PARAMETERS

LINE LISTING	PIPE SPEC.	PRESSURE	TEMPERATURE	CLASS	MATERIAL
FW01	PS 151.2	50 PSIG	110 F	B	SS
FW02	PS 401.2	450 PSIG	350 F	B	SS
FW03	PS 151.2	175 PSIG	200 F	B	SS
FW04	PS 151.4	175 PSIG	200 F	E	SS
FW05	PS 151.2	175 PSIG	250 F	B	SS
FW06	PS 151.4	175 PSIG	200 F	E	SS
FW07	PS 151.4	50 PSIG	114 F	E	SS
FW08	PS 151.2	50 PSIG	189 F	B	SS
FW09	PS 151.4	50 PSIG	150 F	E	SS
FW10	PS 151.4	175 PSIG	150 F	E	SS
FW11	PS 151.4	50 PSIG	114 F	E	SS
FW12	PS 151.4	150 PSIG	114 F	E	SS
FW13	PS 151.4	150 PSIG	114 F	E	SS
FW14	PS 151.4	ATMOS	100 F	E	SS
FW15	PS 151.4	50 PSIG	114 F	E	SS
FW16	PS 151.2	100 PSIG	189 F	B	SS
FW17	PS 151.2	50 PSIG	250 F	B	SS
FW18	PS 151.4	150 PSIG	200 F	H	SS
FW19	PS 151.3	50 PSIG	114 F	C	SS
KF08	PS 151.4	175 PSIG	150 F	E	SS
KF22	PS 151.3	25 PSIG	200 F	C	SS
NB14	PS 151.4	150 PSIG	200 F	E	SS
ND03	PS 401.2	450 PSIG	350 F	B	SS
NM36	TS 2701.1	150 PSIG	114 F	E	ST
WL01	PS 151.4	100 PSIG	200 F	E	SS
WL11	PS 151.4	50 PSIG	200 F	E	SS

LEGEND

- ISI CLASS 1
- ISI CLASS 2
- ISI CLASS 3
- ISI EXEMPT
- NON-ISI

THIS DRAWING IS FOR INSERVICE INSPECTION ONLY AND SHALL NOT BE USED FOR OTHER PURPOSES SUCH AS MAINTENANCE, MODIFICATION, OR REPAIRS. THIS DRAWING SHALL BE REVISED WHEN AS-BUILT CHANGES AFFECT THE INSERVICE INSPECTION BOUNDARIES AND DETAILS OF THE COMPONENTS/SYSTEMS SHOWN.

ORIG	RELEASED FOR ISI USE ONLY	TDM	11-13-00	PTF	11-15-00	RKR	12-14-00	WAIVED		
NO.	REVISIONS	DRN	DATE	CHKD	DATE	APPR	DATE	CIVIL	ELEC.	MECH
								INSPECTED		

QA CONDITION 1 AND 2

DUKE POWER COMPANY
MCGUIRE NUCLEAR STATION UNIT 1

ASME SECTION XI
INSERVICE INSPECTION NDE BOUNDARY OF
REFUELING WATER SYSTEM
(FW)

DESIGNER	TIM MYERS	DATE	11-13-00	INSP	WAIVED	DATE	
DRAWN	TIM MYERS	DATE	11-13-00	INSP	WAIVED	DATE	
CHECKED	GARY D SCARBORO	DATE	11-13-00	APPR	R. KEVIN RHYNE	DATE	12-14-00

SCALE | DWG.NO. MC-ISIN-1571-01.00 | REV. 0

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