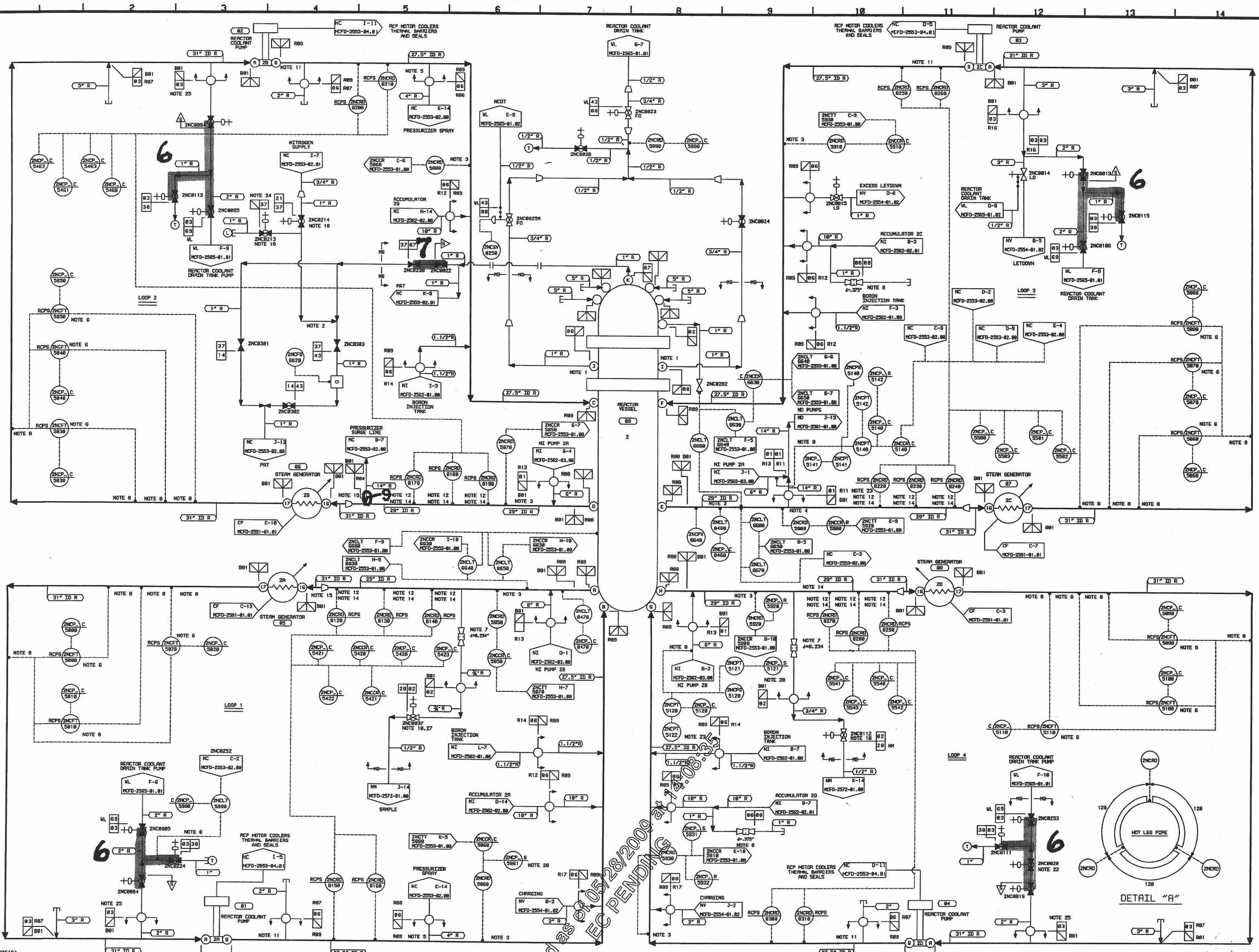

NOTE(S)

1. HEAD GASKET MONITORING CONNECTIONS FURNISHED WITH REACTOR VESSEL.
2. TIE NITROGEN SUPPLY LINE INTO TOP OF VESSEL HEAD VENT LINE.
3. RESISTANCE TEMPERATURE DEVICE INSTALLED IN WELL.
4. LOCATE CONNECTION IN BOTTOM HALF OF REACTOR COOLANT PIPING ON 45 DEGREE ANGLE TO VERTICAL.
5. SPRAY LINE SCOOP.
6. ELBOW FLOW METERS.
7. FLOW RESTRICTOR AT CLASS CHANGE, 1.85 IN. OD AND 0.234 IN. ID.
8. 3/8 IN. ID FLOW RESTRICTOR REQUIRED.
9. DELETED
10. USE REDUCING INSERTS.
11. LOCATE CONNECTION ON UPPER 180 DEGREES OF PIPE CIRCUMFERENCE.
12. HOT LEG BYPASS LINE SCOOPS WHERE APPLICABLE LOCATE UPSTREAM OF SURGE LINE.
13. REFER TO EQUIPMENT LISTING MC-2552 FOR EQUIPMENT DATA.
14. SEE DETAIL A ON THIS DWG. FOR R.T.D. ORIENTATION.
15. 31 IN. X 29 IN. REDUCING ELBOW.
16. DELETED
17. DELETED
18. LOCATE VALVES 2NC0213 AND 2NC0214 NEAR SIGHT GLASS. SO OPERATOR CAN OBSERVE SIGHT GLASS WHILE VENTING SYSTEM.
19. DELETED
20. READOUT TO BE LOCATED IN STANDBY SHUTDOWN FACILITY.
21. DELETED
22. 2NC0020 IS A MOTOR OPERATED VALVE WITH POWER REMOVED. IT WILL BE OPERATED WITH THE EXISTING HANDWHEEL.
23. VALVED OUT DURING NORMAL OPERATION TO BE USED DURING LOW TEMPERATURE OVER-PRESSURE PROTECTION MODE.
24. VENT AND DRAIN ASSEMBLIES ARE TO FABRICATED AND INSTALLED IN ACCORDANCE WITH MCS-1288.00-02-0002 USING ENGINEERING SPECIFICATION MDG-ES-1A, 1B, 1C AND 1D.
25. SEE MCM-2286.13-0025-006, 007 AND 008 FOR INSULATION LOCATIONS AND WEIGHTS.
26. PIPING HAS BEEN ANALYZED FOR 500 F AND 500 PSIG.
27. VALVE IS OPEN TO PROVIDE CONTAINMENT PENETRATION OVERPRESSURIZATION PROTECTION.

DESIGN PARAMETERS

LINE LISTING	PIPE SPEC.	PRESSURE	TEMPERATURE	CLASS	MATERIAL
NC01	PS 2501.1	2485 PSIG	650 F	A	SS
NC02	PS 2501.2	2485 PSIG	650 F	B	SS
NC03	PS 2501.1	2485 PSIG	650 F	A	SS
NC06	PS 2501.1	2485 PSIG	650 F	A	SS
NC07	PS 2501.1	2485 PSIG	650 F	A	SS
NC08	PS 2501.2	2485 PSIG	650 F	B	SS
NC14	PS 601.4	500 PSIG	470 F	E	SS
NC21	PS 151.4	100 PSIG	200 F	E	SS
NC37	PS 2501.4	2485 PSIG	650 F	E	SS
NC38	PS 2501.4	2485 PSIG	650 F	E	SS
NC43	PS 410.4	500 PSIG	400 F	E	SS
NM28	PS 2501.2	2485 PSIG	650 F	B	SS
WL01	PS 151.4	100 PSIG	200 F	E	SS
WL43	TS 2701.1	100 PSIG	200 F	E	ST
WL69	PS 2501.4	2485 PSIG	200 F	E	SS

NOTE 26

Certified as of 05/28/2009 at 12:08:35
EC PENDING

NOTE: DRAWING MCFD-2553-01.00 REPLACES MC-2553-1.0 REV. 28

QA CONDITION 1 AND 2

NO.	REVISIONS	DRN	DATE	CHKD	DATE	APPR	DATE	INSPECTED CIVIL	ELEC.	MECH.
9	PER M-07-04351/EXEMPT CODE G.8	CJZ	06-03	JRC	06-03	RDM	06-04	-W-	-W-	-W-
8	AS-BUILT PER MGMM-14048	EPR	04-21	RLL	04-21	WMS	04-28	ARS	MAB	BSH
7	AS-BUILT PER MGMM-13074	EKK	02-05	EPR	02-06	RDM	02-11	ARS	WN	BSH

DUKE ENERGY
MCGUIRE NUCLEAR STATION UNIT 2

FLOW DIAGRAM OF
REACTOR COOLANT SYSTEM
(NC)

DESIGNER B.S. HOWELL DATE 01-08-97 INSP. AB SHAW DATE 01-08-97
DRAWN J. WHITWORTH DATE 01-07-97 INSP. MN DICKS DATE 01-08-97
CHECKED C. BRINKLE DATE 01-07-97 APPR. HH WALLACE DATE 01-16-97

SCALE DWG. NO. MCFD-2553-01.00 REV. 9

ERN: MC0093DV

D 10

Duke Energy Corporation
Relief Request # 09-MN-005
Attachment 2, Page 10 of 18