



- NOTE(S)
1. VALVE DESIGN PRESSURE IS 150 PSIG.
  2. SEE SYSTEM DESCRIPTION FOR NORMAL OPERATING CONDITIONS.
  3. CONTROL VALVES SHOULD BE LOCATED BELOW ELEVATION 759 FEET.
  4. INDICATING DIFFERENTIAL PRESSURE SWITCH SUPPLIED BY HVAC.
  5. LOCATE FLOW INDICATOR NEAR DOWNSTREAM THROTTLING VALVE TO FACILITATE THROTTLING.
  6. CONNECTIONS ARE MADE BY WET TAP USING 11/16 INCH DIA. DRILL.
  7. CLEANOUT CONNECTION.
  8. 1RN0178 IS AUTOMATICALLY THROTTLED TO REDUCE CAVITATION ON 1RN0198B. THROTTLE POSITION ESTABLISHED BY RN SYSTEM FLOW BALANCE.
  9. THE STEM LOCKOUT ON THIS VALVE MUST BE LOOSENED BEFORE THE VALVE CAN BE REPOSITIONED.
  10. VENT AND DRAIN ASSEMBLIES ARE TO BE FABRICATED AND INSTALLED IN ACCORDANCE WITH MCS-1206-00-02-0002 USING ENGINEERING SPECIFICATION MDG-ES-1A, 1B, 1C AND 1D.

11. THE INTERNALS OF THIS CHECK VALVE HAVE BEEN REMOVED AND THE CHECK VALVE BODY REMAINS IN PLACE.
12. DRAIN VALVE PIPING TO BE SCHEDULE 80.
13. CONTROL VALVE IS CONTROLLING YC CONDENSER PRESSURE BY A REFRIGERANT SENSING LINE.
14. FOR COMPONENT COOLING PUMPS "1B1" & "1B2" SEE MCFD-1573-01.00.
15. FOR AUX. FEEDWATER PUMP "1B" (MOTOR DRIVEN) SEE MCFD-1592-01.01.
16. PIPING IN TRENCH IS NOT INSULATED.
17. 1RN190B IS PREVENTED FROM FULL CLOSURE AS AN ADDITIONAL MEANS OF PROVIDING PUMP MINIMUM FLOW RATE PROTECTION. REFER TO MCM-1205.06-0519.001 AND P1/0/A/4200/056 FOR ADDITIONAL INFORMATION AND DETAIL.
18. VALVE MAXIMUM STROKE TIME IS 50 SECONDS PER MCTC-1574-RN.023-01.
19. VALVE BONNET EQUALIZATION LINE, IF NECESSARY TO CLOSE, DO NOT OVER TIGHTEN. ADMINISTRATIVELY LOCKED OPEN.

DESIGN PARAMETERS

LINE LISTING	PIPE SPEC.	PRESSURE	TEMPERATURE	CLASS	MATERIAL
CA05	PS 150.3	135 PSIG	168 F	C	CS
RN02	PS 150.3	135 PSIG	95 F	C	CS
RN03	PS 150.3	135 PSIG	102 F	C	CS/SS
RN04	PS 150.3	135 PSIG	158 F	C	CS/SS
RN05	PS 151.3	135 PSIG	158 F	C	SS
RN07	PS 150.4	135 PSIG	158 F	0	CS
RN16	PS 151.4	135 PSIG	102 F	G	SS
RN17	PS 151.3	135 PSIG	158 F	0	SS
RN20	PS 151.3	135 PSIG	102 F	C	SS
CA25	PS 151.3	135 PSIG	168 F	C	SS

NOTE: DRAWING MCFD-1574-03.00 REPLACES MC-1574-3.0 REV. 36

QA CONDITION 1

DUKE ENERGY  
MCGUIRE NUCLEAR STATION UNIT 1

FLOW DIAGRAM OF  
NUCLEAR SERVICE WATER  
SYSTEM (RN)

NO.	REVISIONS	DRN	DATE	CHKD	DATE	APPR	DATE	CIVIL	ELEC.	MECH.	INSPECTED
37	AS-BUILT PER EC1008853	ARK	2-10-94	JRC	2-11-94	GLM	2-11-94	-	-	-	-
36	AS-BUILT PER EC1009235	DBW	1-12-94	JRC	1-12-94	GLM	1-12-94	-	-	-	-
35	PER M-14-10943/EXEMPT CODE G, 18	CJZ	12-2-93	JRC	12-2-93	PJR	12-2-93	-	-	-	-
34	AS-BUILT PER EC1010080	CJZ	9-22-93	JRC	9-23-93	MDH	9-23-93	-	-	-	-
33	PARTIAL AS-BUILT PER EC1010080	ARK	8-27-93	EPR	8-27-93	PJR	8-27-93	-	-	-	-
32	AS-BUILT PER EC42128/MCM14555	DRP	9-24-92	JRC	9-24-92	PJR	9-24-92	-	-	-	-
31	AS-BUILT PER EC106402	DBW	1-24-94	DRP	1-24-94	PJR	1-24-94	-	-	-	-
30	M-09-02774 EXEMPT CODE G, 21	DAD	8-14-94	DRP	8-14-94	RDM	8-14-94	-	-	-	-
29	ORIGINAL DRAWING RETIRED							-	-	-	-

DESIGNER: J.W. ROBBINS DATE 10-26-94 INSP. BY: D.V. HINCH DATE 10-28-94  
 DRAWN: J.W. WILLIAMS DATE 10-18-94 INSP. BY: D.J. WILLIAMS DATE 11-18-94  
 CHECKED: M.J. PLESD DATE 10-18-94 APPR. BY: HARRIS DATE 11-11-94  
 SCALE: \_\_\_\_\_ DWG. NO. MCFD-1574-03.00