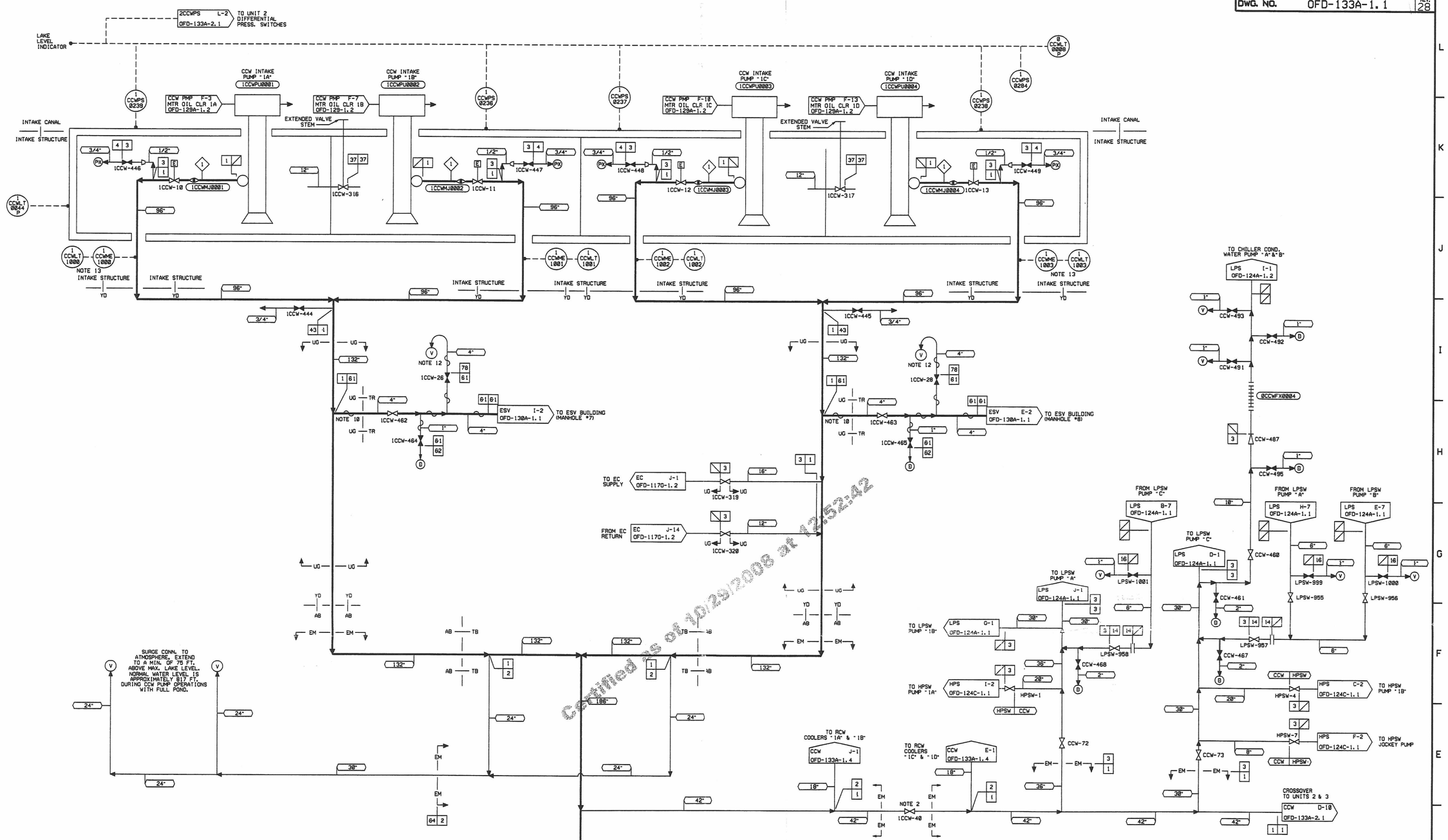
DWG. NO. OFD-133A-1.1 REV. 28



Certified as of 10/29/2008 at 12:52:42

NOTES:

1. OPERATING MODE REPRESENTED BY BOLD LINES: NORMAL CCW INTAKE.
2. THIS VALVE IS REQUIRED TO BE OPEN DURING NORMAL OPERATION TO MEET SINGLE FAILURE REQUIREMENTS.
3. 1/2" THRU 2" SCH. = XS
   2 1/2" THRU 10" SCH. = 40
   12" THRU 36" SCH. = STD
4. PIPING COVERED BY CIVIL/ENVIRONMENTAL DIVISION SPECIFICATION NO. OSS-0181.00-00-0008 AND/OR ITEM NO. 126. THIS SPECIFICATION INVOKES AWWA C200 FOR FABRICATION WHICH INVOKES AWWA M11 FOR DESIGN. AS AN ALTERNATIVE TO THESE STANDARDS, ANSI B31.1 MAY BE USED FOR "SMALL" BRANCH CONNECTIONS. IN SUCH A CASE, THE CONNECTION SHOULD BE TREATED AS CLASS F PIPING. QA CONDITION 1 PIPING IS TO BE REPAIRED IN ACCORDANCE WITH THE REQUIREMENTS OF OCONEE CLASS F AND QA CONDITION 4 PIPING IS TO BE REPAIRED IN ACCORDANCE WITH THE REQUIREMENTS OF OCONEE CLASS D.
5. THE ORIGINAL ISSUE OF THIS DRAWING IS BASED ON PD-133A, REV. 27.
6. STAINLESS STEEL (PS-151.4) MAY BE SUBSTITUTED FOR PIPE SIZES 1/2" THRU 6". EXISTING PIPING MAY BE OF AUSTENITIC STAINLESS STEEL MATERIAL OR OF CARBON STEEL TO THE APPLICABLE "PS" INDICATED. PIPING ENGINEERING APPROVAL IS REQUIRED PRIOR TO ANY CHANGE OF THE EXISTING MATERIAL. SEE NOTE 24 IN APPENDIX C, MATERIAL REQUIREMENTS, OF OS-243.00-00-0001. — 28
7. 1/2" THRU 10" SCH. = 40
   12" THRU 24" SCH. = STD
8. QA CONDITION 1
9. QA CONDITION 4
10. A SHORT PIECE OF 4" CS PIPE IS USED TO TRANSITION BETWEEN 8S VENT LINE & CS CCW HEADER. SEE PIPING LAYOUT FOR MATERIAL INFO. ON TRANSITION PIECE.
11. 100°F = NON-HEAT TRACED PIPING
    150°F = HEAT TRACED PIPING
12. ENDS THREADED TO ALLOW ROTAMETER ATTACHMENT DURING PERIODIC TESTING.
13. THESE INSTRUMENTS ARE INACTIVE AND DISCONNECTED PER ONOE-1761B.

DESIGN PARAMETERS

LINE NO.	DUKE CLASS	DESIGN PRESS.	DESIGN TEMP.	MATERIAL	PIPE SPEC. NO.	PIPE SCH. NO.	ISI CLASS
1	NOTE 4,8	—	—	CS	NOTE 4	NOTE 4	C
2	NOTE 4,9	—	—	CS	NOTE 4	NOTE 4	-
3	F	50 PSIG	100°F	CS(NOTE 6)	150.6(NOTE 6)	NOTE 3	C
4	G	50 PSIG	100°F	CS(NOTE 6)	150.6(NOTE 6)	NOTE 3	-
14	F	100 PSIG	100°F	CS	150.6	SCH. 40	C
16	G	100 PSIG	100°F	CS(NOTE 6)	150.4(NOTE 6)	NOTE 7	-
37	G	35 PSIG	100°F	CS	150.6	NOTE 3	-
43	F	50 PSIG	100°F	SS	301.4	SCH. 80	C
44	D	50 PSIG	100°F	CS	150.6	SCH. 40	-
61	F	50 PSIG	100°F/150°F(NOTE 11)	SS	151.4(a)	SCH. 40	C
62	G	50 PSIG	100°F	SS	151.4	SCH. 40	-
63	G	ATM.	100°F	SS	151.4	SCH. 40	-
64	D	50 PSIG	100°F	CS(NOTE 6)	150.6(NOTE 6)	NOTE 3	-
78	G	50 PSIG	100°F/150°F(NOTE 11)	SS	151.4	SCH. 40	-

DESIGN FLOW

NO.	FLOW
1	177,000 GPM

NO.	REVISIONS	DRN	DATE	CHKD	DATE	APPR	DATE	CIVIL	ELEC.	MECH.
28	REV. PER OE-17246	MSI	6-15-05	LER	6-16-05	RBC	6-16-05	-W-	-W-	HEH
27	REV. PER ED. EX. G. 6, PIP#03-01963	DLR	12-27-04	MSI	12-28-04	RBC	1-19-05	KQC	-W-	HEH
26	REV. PER ED, EX. G. 7	LER	6-2-04	MSI	6-2-04	RBC	6-3-04	CJP	MLM	JBB
25	REV. PER OE-17740	DLR	5-21-03	MSI	5-21-03	ROD	5-22-03	AKP	PAB	HEH
24	REV. PER OE-17618	LER	3-31-03	MSI	3-31-03	ROD	3-31-03	-W-	PAB	HEH
ORIG.	ORIGINAL DRAWING RETIRED	LER	3-27-03							

INSPECTED

DUKE POWER COMPANY
OCONEE NUCLEAR STATION - UNIT 1

FLOW DIAGRAM OF
CONDENSER CIRCULATING WATER SYSTEM
(CCW INTAKE PUMPS DISCHARGE)

DESIGNER DKHARRELSON DATE 7-17-84 — INSP. H. G. McKAY DATE 8-1-84
DRAWN V. G. OWENS DATE 7-17-84 — INSP. EG. FRAMPTON DATE 8-2-84
CHECKED JB STRINGER DATE 7-17-84 — APPR. RF WARDELL DATE 8-8-84

SCALE — DWG. NO. OFD-133A-1.1 REV. 28

ERN: 0X000LS0

Duke Energy Corporation
Relief Request #09-GO-001
Attachment C, Page 3 of 6

D-02

FOR INFORMATION ONLY

QA CONDITION 4
QA CONDITION 1