



NOTES:

1. THE COMPONENT COOLING SYSTEM (CCS) IS A CLOSED LOOP SYSTEM WHICH PROVIDES COOLING WATER FOR UNITS 1 AND 2 TO:
 - A. REMOVE HEAT FROM COMPONENTS AND HEAT EXCHANGERS WHICH HANDLE RADIOACTIVE FLUID DURING NORMAL OPERATION, SHUTDOWN OF THE REACTOR, OR ACCIDENT CONDITIONS.
 - B. PROVIDE AN INTERMEDIATE LOOP BETWEEN NUCLEAR EQUIPMENT HANDLING RADIOACTIVE FLUID AND THE NATURAL ENVIRONMENT.
2. FOR DETAILED SPECIFICATIONS OF THE CCS, SEE:
 - A. DESIGN CRITERIA FOR COMPONENT COOLING SYSTEM, WB-DC-40-15.
 - B. DESIGN CRITERIA AND FUNCTIONAL REQUIREMENTS FOR COMPONENT COOLING WATER SYSTEM SINGLE UNIT STATION, WESTINGHOUSE S.O. AEN-152.
3. LEVEL IN PUMP SEAL LEAKAGE COLLECTION TANK IS MAINTAINED BY OPERATION OF SEAL WATER PUMPS A AND B. THE PUMPS ARE CONTROLLED BY A MECHANICAL ALTERNATOR WHICH ALTERNATES THE OPERATION OF THE PUMPS AND STOPS AND STARTS THE PUMPS AT THE DESIGNATED LEVELS.
4. ISOLATION VALVES FCV-70-87 AND FCV-70-90 CLOSE IN THE EVENT OF A DIFFERENTIAL FLOW (OUTLET > INLET) IN THE THERMAL BARRIER COOLANT LOOP. ISOLATION IS INITIATED BY FAS-70-81, WHICH SENSES THE DIFFERENTIAL IN FLOW RATES AS MEASURED BY FE-70-81A AND FE-70-81B.
5. ALL TRANSFER SWITCHES, XS, TO ANNUNCIATE WHEN PLACED IN AUXILIARY POSITION.
6. SOME CIDs ON THIS DRAWING HAVE BEEN CHANGED AND MAY DIFFER FROM THE CIDS SHOWN ON OTHER DOCUMENTS FOR THE SAME COMPONENT. THE ALTERNATE ID SCREEN (AII) IN EMS CAN BE ACCESSED AS NECESSARY TO DETERMINE IF PREVIOUS CIDS EXISTED FOR A SPECIFIC COMPONENT.
7. HANDSWITCH HAS BEEN DISCONNECTED. SWITCH TO BE RECONNECTED FOR TESTING ONLY.
8. REFER TO TABLE A1A FOR ADDITIONAL DIGITAL COMPUTER POINTS (POWER AVAILABLE, PUMP RUNNING, ETC.).

REFERENCE DRAWINGS:

47464 SERIES ----- MECHANICAL-PIPING DETAILS-COMPONENT COOLING SYSTEM
 47801-70 SERIES ----- ELECTRICAL-INSTRUMENT TABULATION
 47811-70 SERIES ----- LOGIC DIAGRAM
 47859 SERIES ----- MECHANICAL-FLOW DIAGRAM-COMPONENT COOLING SYSTEM

SYMBOLS:

○----- PRESSURE REGULATOR WITH FILTER PRESSURE SET TO BE DETERMINED BY MANUFACTURER'S REQUIREMENT FOR THE DEVICE BEING SUPPLIED.
 *----- COMPONENT ASSOCIATED WITH BACKUP CONTROL. COMPONENT WILL BE LOCATED ON THE APPROPRIATE 480-V MOV OR 6.9-KV SHUTDOWN BOARD.

COMPANION DRAWINGS: 47W610-70-1A, -2, -2A, -3, -3A

THIS CONFIGURATION CONTROL DRAWING SUPERSEDES UNIT 1 AS-CONSTRUCTED DRAWING 47W610-70-1 REVISION P.

LOG	FD2166				
23	52674				
REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE
1		ESJ	JEW	<i>[Signature]</i>	12-3-09
REVISED PER DCA 52674-06-0.					
SCALE: NTS EXCEPT AS NOTED					
PROJECT FACILITY POWERHOUSE UNITS 1 & 2					
TITLE					
ELECTRICAL CONTROL DIAGRAM COMPONENT COOLING WATER SYSTEM					
1 WATTS BAR NUCLEAR PLANT TENNESSEE VALLEY AUTHORITY Q					
DESIGN	CHECKER	INITIAL ISSUE	ENGINEERING APPROVAL		
C. N. CLABOUGH	D. L. COOPER	RO ISSUE PER	1 R. T. GRAHAM		
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1-27-90	J. EDWARD GIBBS FOR PRM	85	E	1-47W610-70-1	R23