



- NOTES:
1. ALL VALVES ARE THE SAME SIZE AS THE PIPING UNLESS OTHERWISE NOTED.
  2. TV AND TC DENOTE "TEST VENT" AND "TEST CONNECTION".
  3. FLOW DIAGRAM FOR UNIT 1 SHOWN.
  4. ALL PIPE CLASS B UNLESS OTHERWISE NOTED.
  5. "D" DENOTES LOCAL DRAIN; "DH" DENOTES DRAIN HEADER; AND "V" DENOTES VENT.
  6. THE ORIFICE IS LOCATED A MINIMUM OF 7' ABOVE THE RCP CONN.
  7. SPECIAL TRANSITION PIECE (3/8" ID FLOW RESTRICTOR) REQUIRED FOR TRANSITION FROM CLASS A SYSTEM TO CLASS B, C, D, ETC. INDICATED LINE NO. CORRESPONDING TO DESIGN PRESSURE AND TEMPERATURE CHART ON THIS SHEET.
  8. ALL INSTRUMENT CONNECTIONS ARE 1/2" UNLESS OTHERWISE NOTED.
  9. ALL INSTRUMENT VALVES ARE 3/4" UNLESS OTHERWISE NOTED.
  10. SAFETY CLASS (I.E. CLASS A, B, AND C) PIPING SHALL BE HYDROSTATICALLY TESTED TO 1.25 TIMES DESIGN PRESSURE. ALL NON-SAFETY RELATED PIPING SHALL BE TESTED TO 1.5 TIMES DESIGN PRESSURE. CONSTRUCTION SHALL DETERMINE IF THE COMPONENTS IN THE SYSTEM ARE LIMITING COMPONENTS TO THE HYDROSTATIC TEST ASSESSMENT. CASES INVOLVING HYDROSTATIC TESTING MAY BE USED IF EN DES APPROVES THE APPLICATION. HYDROSTATIC TEST PRESSURE DATA IS HISTORICAL INFORMATION AND NO LONGER MAINTAINED AS DESIGN OUTPUT.
  11. FOR DEFINITIONS OF SYMBOLS OF "LC" OR "LO", REFER TO MEMO B2880402001.
  12. DESIGN CRITERIA/SYSTEM DESCRIPTION REFERENCE DOCUMENTS (USE THE LATEST REVISION ON ALL WORK UNLESS OTHERWISE SPECIFIED. SEE THE LATEST REVISION OF THE 47821 SERIES DRAWINGS):
    - 12.1 PIPING SYSTEM CLASSIFICATION (I) 47821-1-1
    - 12.2 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-2
    - 12.3 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-3
    - 12.4 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-4
    - 12.5 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-5
    - 12.6 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-6
    - 12.7 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-7
    - 12.8 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-8
    - 12.9 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-9
    - 12.10 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-10
    - 12.11 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-11
    - 12.12 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-12
    - 12.13 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-13
    - 12.14 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-14
    - 12.15 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-15
    - 12.16 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-16
    - 12.17 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-17
    - 12.18 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-18
    - 12.19 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-19
    - 12.20 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-20
    - 12.21 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-21
    - 12.22 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-22
    - 12.23 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-23
    - 12.24 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-24
    - 12.25 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-25
    - 12.26 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-26
    - 12.27 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-27
    - 12.28 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-28
    - 12.29 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-29
    - 12.30 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-30
    - 12.31 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-31
    - 12.32 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-32
    - 12.33 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-33
    - 12.34 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-34
    - 12.35 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-35
    - 12.36 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-36
    - 12.37 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-37
    - 12.38 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-38
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    - 12.40 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-40
    - 12.41 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-41
    - 12.42 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-42
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    - 12.97 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-97
    - 12.98 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-98
    - 12.99 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-99
    - 12.100 CHEMICAL VOLUME AND CONTROL SYSTEM PIPING SYSTEM CLASSIFICATION (I) 47821-1-100

59	ADMIN	GJB	JEW	JWA	11-10-09
REVISED TO CORRECT DISCREPANCIES IDENTIFIED BY PER 164561 (171 091110 800).					
REV	CHANGE REF	PREPARER	CHECKER	APPROVED	DATE
SCALE: NTS EXCEPT AS NOTED					
PROJECT FACILITY POWERHOUSE UNIT 1					
TITLE FLOW DIAGRAM CHEMICAL & VOLUME CONTROL SYSTEM					
1 WATTS BAR NUCLEAR PLANT TENNESSEE VALLEY AUTHORITY					
DESIGN		INITIAL ISSUE		ENGINEERING APPROVAL	
DRAFTER	CHECKER	RO ISSUE PER		1 J.R.WETH	
S.R.HANCOCK	C.E.THOMPSON	B26 5.17 & RIMS WBP '90 0514 378 & DCN M-01591-A		2 J.R.WETH	
DESIGNER	REVIEWER			3 L.W.BOYD	
M.L.CHAPMAN	M.D.DAVIS				
DATE		PRINT		R59	
7-23-90		85 M		1-47W809-1	

FSAR FIG. 9.3-15 SH 1