

C:\LANL_Eng\standards\Standards\Standards\STD003 - Mechanical\STD003 - Mechanical\Rev 030201 - Standard_Ansi_2003\030301 - 10.30.01 - 030301

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H NOTES FOR DESIGNER: (DO NOT INCLUDE ON CONSTRUCTION DRAWINGS)

- 1. WHEN EDITING DETAIL TO SUIT PROJECT, ADD JOB SPECIFIC REQUIREMENTS AND DELETE ONLY THOSE PORTIONS THAT DO NOT APPLY. TO SEEK A VARIANCE FROM APPLICABLE REQUIREMENTS, CONTACT THE ESM MECHANICAL POC.
- 2. SIZE CONDENSATE BRANCH LINE NO SMALLER THAN THE TRAP INLET. MINIMUM SIZE IS 3/4".
- 3. USE TWO PRV'S IN SERIES WHEN THE TOTAL REDUCTION IN PRESSURE IS MORE THAN A 10 TO 1 RATIO OF THE GAUGE PRESSURE. SEE SHEET 2. SET THE FIRST PRV AT APPROXIMATELY 60 PSIG AND THE SECOND AS REQUIRED.
- 4. USE TWO PRV'S IN PARALLEL WHEN THE LOAD DEMANDS FLUCTUATE THROUGH A WIDE RANGE. SEE SHEET 3.
 - A. WHEN SPLIT BETWEEN LOADS IS UNKNOWN, SELECT VALVES WITH CAPACITIES OF 1/3 AND 2/3 OF THE MAXIMUM LOAD WITH THE SMALLER VALVE SET AT 2 PSIG HIGHER THAN THE LARGER VALVE. (AS THE LOAD INCREASES, THE PRESSURE DROPS AND THE LARGER VALVE OPENS).
- 5. RELIEF VALVE SETTINGS (PER 2005 ASHRAE SYSTEMS & EQUIPMENT HANDBOOK, PAGE 10.10)
 - A. REDUCED PRESSURE UNDER 35 PSI: SET RELIEF VALVE AT LEAST 5 PSI HIGHER THAN REDUCED PRESSURE.
 - B. REDUCED PRESSURE ABOVE 35 PSI: SET RELIEF VALVE AT LEAST 10 PSI HIGHER THAN REDUCED PRESSURE.
- 6. BYPASS AROUND PRV SHALL BE EQUAL TO THE PIPING SIZE INTO PRV.
- 7. MOISTURE SEPARATOR SHALL BE LINE SIZE. INSTALL ONLY IN BUILDING STEAM SUPPLY LINE TO BUILDING.
 - A. MINIMUM BUILDING SUPPLY LINE SIZE 2 1/2"
 - B. TRAP SIZE AND CONDENSATE PIPING SIZE SHALL BE THE SAME SIZE AS THE MOISTURE SEPARATOR DRAIN PORT. MINIMUM SIZE 3/4".
- 8. REFER TO THE FOLLOWING LANL STANDARDS FOR ADDITIONAL REQUIREMENTS:
 - A. MASTER SPECIFICATION 23 2217, STEAM AND CONDENSATE SPECIALTIES (BLDG).
 - B. MASTER SPECIFICATION 23 2213, STEAM AND CONDENSATE HEATING PIPING (BLDG).
 - C. MASTER SPECIFICATION 33 6300, STEAM ENERGY DISTRIBUTION (SITE).
- 9. COMPLY WITH ASME B31.1 POWER PIPING. DESIGN STEAM PIPING FOR 150 PSIG AND 500 DEGREES F. DESIGN CONDENSATE PIPING FOR 250 DEGREES F.

DRAWING DEVELOPED FOR ML-3/ ML-4 PROJECTS. FOR ML-1/ ML-2, ADDITIONAL REQUIREMENTS AND QA REVIEWS ARE REQUIRED. (REMOVE THIS NOTE WHEN INSERTED INTO A DRAWING PACKAGE).

2	1-4-06	U	DY	REVISED TITLE BLOCK, ADDED NOTES FOR DESIGNER #9 AND REVISED #4.	RP	AY	AY	CO	TO	
1	8-13-03	U		REVISED NOTES. DWG NO. WAS ST6202.	RP	RF	JM	GG	TO	
NO	DATE	CLASS	REV	ADD	DESCRIPTION	OWN	DSGN	CHKD	SUB	APP

ENGINEERING STANDARDS PROGRAM

ENGINEERING STANDARDS MANUAL		DRAWN R.PEARSON
		DESIGN R.FROST
STEAM PRV STATION DETAIL DESIGN NOTES		CHECKED C.DUPRE
BLDG X	TA-X	DATE 6-28-99
SUBMITTED		APPROVED FOR RELEASE
DISCIPLINE POC: GURINDER GREWAL		STANDARDS MANAGER: TOBIN ORUCH
		SHEET 4
		4 OF 4
CLASSIFICATION: U		REVIEWER: LARRY BAYS
PROJECT ID		DATE:
CHAPTER 6		DRAWING NO. ST-D3020-2
		REV 2