1. PURPOSE

1.1 To provide instructions on proper equipment to be utilized, and procedures and precautions to be followed to insure safety during a hydrostatic test.

2. GENERAL

2.1 The Supervisor in charge of the installation shall be responsible for the hydrostatic testing. All personnel involved with the hydrostatic test must be familiar with the test procedure, and safety precautions to be followed during the hydrostatic test.

3. SAFETY CONSIDERATIONS

3.1 Take precautions as necessary to protect employees and the general public during testing. These shall include, but are not limited to the following:

3.1.1 Locate the test equipment and instrumentation a safe distance from the test section. (See Gas Standard A-37.6)

3.1.2 Keep personnel not working on the test operation out of the test area.

3.1.3 Place barriers along the test section where appropriate to prevent public access.

3.1.4 Notify public agencies of the scheduled test when necessary, and notify parties located in the general vicinity of the test section to avoid the area during the test.

3.1.5 Patrol and use flagmen to keep people away during testing.

3.1.6 Schedule the test at a time that will minimize public exposure in highly populated areas.

3.2 Visually inspect temporary piping, closures, and other equipment used in conjunction with the test to verify that they are in safe working order. Maintain a periodic visual inspection of this equipment from a safe distance during the test.

APPROVED BY	REV.	DATE	DESCRIPTION	GM	DWN.	CHKD.	SUPV.	APVD.
	2	8-16-82	ADDED 3", 10", 30" & 34" TEST HEADS					
	1	1-7-80	Issue for use					

GM		B/M	
SUPV.		DWG. LIST	
DSGN.		SUPSDS	
DWN.		SUPSD BY	
CHKD.		SHEET NO. 1 OF 9	SHEETS
O.K.		086870	REV. 2
DATE 4-24-79	SCALE	MICROFILM	

PIPING - DATA SHEET

HYDROSTATIC TESTING PROCEDURE

GAS STANDARD

PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

62-1804 Rev 7-75

3.3 Do not remove caps, plugs, or valves from the test head, or any other test equipment, until a positive determination is made from two independent taps that the test section is depressurized.

4. TEST PROCEDURE

4.1 Establish a plan for the hydrotest. As appropriate, this shall include detailed written instructions covering problem areas for the specific test involved. These shall be developed by the engineer responsible for the test, in conjunction with the supervisor on the test.

4.1.1 Consider the potential for flooding, or other damage should a failure occur.

4.1.2 Consider the safety of Company personnel and the general public.

4.1.3 Have a copy of the Strength Test Pressure Report and schematic sketch of the test section at the test location.

4.2 Prepare a sketch of the test section showing stationing of the test section and points of maximum and minimum elevation. (See Gas Standard A-37.2).

5. OBTAIN PROPER TEST EQUIPMENT

5.1 Test Heads

5.1.1 The General Construction-Gas Department is responsible for the construction and maintenance of all test heads. Pages 7 to 9 of this Standard lists all test heads authorized for use to date. Test heads not on this list shall not be used until they have been inspected and issued serial numbers by the General Construction-Gas Department.

5.1.2 Test heads are to be constructed in accordance with Gas Standard A-37.1, Drawing No. 386527. All test heads must be visually inspected, X-rayed, hydrostatically tested, properly tagged for maximum test pressure, and issued serial numbers before they are authorized for use. The necessary paperwork to verify the inspection and testing and to verify the wall thickness, size and grade of pipe and fittings used to make each test head shall be on file with General Construction in Oakland.

5.1.3 Test heads shall be requested from General Construction-Gas Department, 4930 Colliseum Way, Oakland 94601, (415)535-0601,

TEST HEADS AUTHORIZED FOR USE

DIAMETER	SERIAL No.	GRADE	W.T.	MAXIMUM TEST PRESSURE
3"	3761	"B"	.216"	2160
3"	3761-A	"	"	"
3"	3801-A	"	"	"
3"	3801-B	"	"	"
4" Comb.	4761-A	"B"	.237"	2160
4" Comb.	4761-B	"	"	"
4"	4791-A	"	"	"
4"	4791-B	"	"	"
4"	4792-A	"	"	"
4"	4792-B	"	"	"
6"	6761-A	X-52	.500"	2160
6"	6761-B	"	"	"
6"	6762-A	"B"	.432"	2738
6"	6762-B	"	"	"
6"	6791-A	"	"	2160
6"	6791-B	"	"	"
8" Comb.	8761-A	"B"	.500"	2160 W/4" Heads
8" Comb.	8761-B	"	"	"
8"	8791-A	"	"	2160
8"	8791-B	"	"	"
8"	8792-A	"	"	"
8"	8792-B	"	"	"
10"	10761	X-52	.500"	2160
10"	10761-A	"	"	"
10"	10762-A	"B"	"	1627
10"	10762-B	"	"	1953
10"	10763-A	X-52	.365"	1765
10"	10763-B	"	"	"
10"	10811-A	"	.500"	2418
10"	10811-B	"	"	"

DIAMETER	SERIAL NO.	GRADE	W.T.	MAXIMUM TEST PRESSURE
24"	24761-A	X-52	.625"	1440
24"	24761-B	"	"	"
24"	24762-A	"	.750"	1950
24"	24762-B	"	"	"
26"	26761-A	Y-52	.750"	1772
26"	26761-B	"	"	"
26"	26762-A	"	"	"
26"	26762-B	"	"	"
30"	3081-1A	X-52	1.000"	1500
30"	3081-1B	"	"	"
34"	34761-A	X-52	1.000"	1835
34"	34761-B	"	"	"
34"	34801-A	Y-65	1.375"	2553
34"	34801-B	"	"	"
36"	36761-A	X-60	.750"	1440
36"	36761-B	"	"	"
36"	36762-A	"	.730"	"
36"	36762-B	"	"	"