

- 9.2.2 Install filters on the suction line of the pumps to prevent fish and other foreign matter from entering the test section.
- 9.2.3 The exhaust of the pump engine must have spark arrestors.
- 9.2.4 Water may be transferred from the one test section to another by use of a hairpin (see Gas Standard A-37.5). The hairpin shall not be left in place during the test.

10. WATER REMOVAL (See Gas Standard A-37.7 for Typical Setup)

- 10.1 Use extreme caution when releasing water at the test pressure. The pressure should be relieved by partially opening a small tap valve before opening the main dewatering valve.
- 10.2 Remove the water from long test sections by pigging. The most effective speed of a pig for dewatering is considered to be 1 to 5 miles per hour.
- 10.3 Where removal of moisture is critical, use two pigs with a slug of methanol between them. Special care must be taken in handling and disposing of any methanol remaining from such an operation.
- 10.4 Short sections may be inclined to drain and swabbed dry by hand.
- 10.5 Dispose of the water in a manner that will prevent damage to the environment and comply with any water disposal regulations. Special precautions must be taken when testing a pipeline which has been in service, because some residual material in the line might be a hazardous waste. Steps should be taken to prevent the test water from contacting such material, and the water should be tested prior to disposing of it to determine whether any contamination is present.

See sheet

10.6

11.0 REPORTS

- 11.1 The Gas Estimators' Manual and the Gas Foremans' Manual contain sections that provide complete instruction on the completion of the Strength Test Pressure Report. Completed reports must be signed, and all copies for distribution must be clear and show all pertinent data.
- 11.2 The test records, which are required, depend on the operating pressure in psig or as percent of SMYS of the gas facility being tested. Refer to Gas Standard A-34. The Strength Test Pressure Report form indicates the required distribution of test records.

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7.1.2 If work is performed by the Division, notify the Gas System Design Department at least seven days prior to the date of hydrostatic test.

7.2 If the job was reported to the CPUC, it is likely that the hydrostatic test will be witnessed by a member of the CPUC staff and Gas System Design Department.

8.0 WATER SUPPLY

8.1 The water used for testing shall be reasonably clean. Contaminated water or salt water shall not be used. Water shall be obtained from the most readily available source, subject to authorizations by the appropriate local, county, state or federal regulating agency or agencies.

8.2 If wells must be used as the water source and the quantity of water needed for the test is substantial, a draw-down test shall be performed. If the wells prove to be inadequate, an alternate source should be found. Transporting water by truck shall be used only as a last resort when the quantity of water needed is substantial.

9.0 WATER FILLING (See Gas Standard A-37.4 for Typical Setup)

9.1 Make sure the following points are considered in the water filling operation:

9.1.1 The test section must be completely filled with water. A pig must be run ahead of the water to force as much air as possible out of the test section. For test sections where a pig cannot be used, the air must be vented at the high points.

9.1.2 Fill the test section from only one direction, preferably from the low end.

9.1.3 If necessary, anchor or support the pipe to prevent excessive stress levels caused by the weight of the water. Special consideration should be given to bridge crossings and spans.

9.1.4 Open and close fill and drain valves slowly to prevent pressure surges resulting from rapid changes in water velocity.

9.2 Water Filling Equipment

9.2.1 Size the fill pumps considering static head due to elevation difference in the test section and the fill time desired.

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