



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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TO: Underground Storage Tank Testers and Interested Parties.  
FROM: Maine Department of Environmental Protection  
DATE: January 19, 2007  
RE: Precision Testing Requirements for Suction Piping

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This is an update regarding requirements for precision testing of underground tanks and piping that are regulated by the Department's Rules for Underground Oil Storage Facilities, Chapter 691. Department rules require testing of both the tank and product piping when testing is required for follow-up to a failed statistical inventory analysis (SIA), when investigating evidence of a possible leak, or when bringing a facility that has been out of service back into service.

In the past, the Department has accepted precision tests where suction piping was tested as a function of the tank, even when the test method was not third party evaluated in that manner. Suction piping is considered a conforming system when sloped properly and any check valve is as close to the pump as possible. However, a suction piping system must be tested independently of the underground storage tank to meet the precision test requirements, unless the test procedure has been evaluated to test the system as a whole. Therefore, the Department will no longer accept precision tests that did not test the underground storage tank and the suction piping as third party evaluated.

**Precision Testing Requirements**

According to Chapter 691 a "Precision Test" means a tank and piping line tightness test, approved by the commissioner, that is capable of detecting a leak, a loss or gain of 0.1 gallon per hour with a probability of detection of at least 95 percent and a probability of a false alarm of five (5) or less percent as determined by an by an independent testing laboratory in accordance with U.S. Environmental Protection Agency approved protocols, or other protocols approved by a nationally recognized independent testing organization, including but not limited to the ASTM and the National Work Group on Leak Detection Evaluations. (Chapter 691, Section 3(LL))

**Piping Line Tightness Test Requirements**

All pressurized product piping tests must be preformed at 150% operating pressure, or if performed at a lower pressure, it must be able to obtain a leak rate equivalent or smaller than that determined by the piping test method's independent performance testing in accordance with U.S. Environmental Protection Agency approved protocols. (Chapter 691, Appendix B(3)(A))

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All tests must be performed in strict conformity to all of the testing equipment manufacturer's standard operating procedures. In addition, the test must be run a minimum of one hour. (Chapter 691, Appendix B(3)(B))

### **Additional Requirements**

All testing technicians shall be certified by the manufacturer of the testing equipment. (Chapter 691, Appendix B(4)(A))

All test results must include the following information in order to be accepted by the commissioner:

- (1) Facility name, address, registration and tank number, and the product stored;
- (2) Whether the facility components tested passed or failed, and the measured leak rate;
- (3) The test method's threshold for declaring a leak; and
- (4) Certification that the test method has been performed according to the manufacturer's protocols used in the third party evaluation. (Chapter 691, Appendix B(4)(B))

### **Reminder**

According to Chapter 691, all tests must be performed in strict conformity to all of the testing equipment manufacturer's standard operating procedures and with any limitations determined by an independent testing laboratory in accordance with U.S. Environmental Protection Agency approved protocols, or other protocols approved by a nationally recognized independent testing organization, including but not limited to the ASTM and the National Work Group on Leak Detection Evaluations. (Chapter 691, Section 3(LL) and Chapter 691, Appendix B(1)(D))

As of this date the tank and piping must be tested using the same procedures that were tested by the third party testing laboratory. Any test results that does not document that the test was conducted in accordance with the manufacture's protocols will be returned to the facility owner as invalid.

If you have any questions regarding this letter please call the Department (207) 287-2651 and ask for someone in the Underground Tanks Unit.