



# LEAKAGE TEST

49 CFR, 180.407(d)

Manufacturer: \_\_\_\_\_ Year: \_\_\_\_\_ DOT Spec: \_\_\_\_\_

Co#: \_\_\_\_\_ Vin#: \_\_\_\_\_ Test Date: \_\_\_\_\_

Cargo Tank Insulated:  YES  NO Lined:  YES  NO

ITEM	REMARKS
Tank Shell	
Tank Heads	
Product Piping	
Tank Welds	

MAWP or Design Pressure: \_\_\_\_\_ x 80% = Test Pressure

Test Pressure Used: \_\_\_\_\_ Tank in Dedicated Service?  YES  NO

Leak test performed under requirements of US EPA "Method 27" as contained within 40 CFR Part 60?  
 YES  NO

Test pressure maintained for \_\_\_\_\_ mins. (Must be held for at least 5 minutes)

Cargo tank returned to service: \_\_\_\_\_ Cargo tank withdrawn from service: \_\_\_\_\_

Inspector's Name: \_\_\_\_\_ CT#: \_\_\_\_\_

Inspector's Address: \_\_\_\_\_

I CERTIFY THAT THE INSPECTION NOTED ON THIS FORM WAS PERFORMED BY ME AND ALL REQUIRED ENTRIES WERE MADE CONCERNING OBSERVATIONS MADE DURING THIS INSPECTION.	
Inspector's Signature _____	Date _____
Owner or Authorized Representative's Signature _____	Date _____

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**(h) Leakage test.**

- (1) Each cargo tank must be tested for leaks in accordance with § 180.407(c). The leakage test must include product piping with all valves and accessories in place and operative, except that any venting devices set to discharge at less than the leakage test pressure must be removed or rendered inoperative during the test. Test pressure must be maintained at least 5 minutes. Suitable safeguards must be provided to protect personnel should a failure occur. MC 330 and MC 331 cargo tanks may be leakage tested with the hazardous materials contained in the tank during the test. Leakage test pressure must be not less than 80 percent of the tank design pressure or MAWP, whichever is marked on the certification or specification plate, except as follows:
  - (i) A cargo tank with an MAWP of 690 kPa (100 psig) or more may be leakage tested at its maximum normal operating pressure provided it is in dedicated service or services; or
  - (ii) An MC 330 or MC 331 cargo tank in dedicated liquefied petroleum gas service may be leakage tested at not less than 414 kPa (60 psig).
- (2) Cargo tanks equipped with vapor collection equipment may be leakage tested in accordance with the Environmental Protection Agency's "Method 27—Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test," as set forth in 40 CFR Part 60, Appendix A. Acceptance criteria are found at 40 CFR 60.501.
- (3) A cargo tank that fails to retain leakage test pressure may not be returned to service as a specification cargo tank, except under conditions specified in §180.411(d).
- (4) The inspector must record the results of the leakage test as specified in §180.417(b).

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# ACCEPTABLE RESULTS of TEST and INSPECTIONS

49 CFR, 180.411

(a) **Corroded or abraded areas.**

The minimum thickness may not be less than that prescribed in the applicable specifications.

(b) **Dents, cuts, digs and gouges.**

(See CGA Pamphlet C-6 for evaluation procedures.)

(1) For dents at welds or that include a weld, the maximum allowable depth is 1/2 inch. For dents away from welds, the maximum allowable depth is 1/10 of the greatest dimension of the dent, but in no case may the depth exceed one inch.

(2) The minimum thickness remaining beneath a cut, dig or gouge may not be less than that prescribed in the applicable specification.

(c) **Weld or structural defects.**

Any cargo tank with a weld defect such as a crack, pinhole, or incomplete fusion, or a structural defect must be taken out of hazardous materials service until repaired.

(d) **Leakage.**

All sources of leakage must be properly repaired prior to returning a tank to hazardous materials service.

(e) **Relief valves.**

Any pressure relief valve that fails to open and re-close at the prescribed pressure must be repaired or replaced.

(f) **Liner integrity.**

Any defect shown by the test must be properly repaired.

(g) **Pressure test.**

Any tank that fails to meet the acceptance criteria found in the individual specification that applies must be properly repaired.

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