



# EXTERNAL VISUAL INSPECTION

49 CFR, 180.407(d)

Name of Owner/Carrier: \_\_\_\_\_ Test Date: \_\_\_\_\_

Address: \_\_\_\_\_

Owner Unit #: \_\_\_\_\_ Tank serial #: \_\_\_\_\_ MAWP: \_\_\_\_\_ psi

Tank manufacturer: \_\_\_\_\_ Specification: MC/DOT: \_\_\_\_\_

Cargo Tank: Insulated:  Lined:  Lining type: \_\_\_\_\_ Tank capacity: \_\_\_\_\_ gal.

Tank Service: LPG  Anhydrous Ammonia  Corrosive  Dedicated  Other

ITEM	PASSED	FAILED	REMARKS/COMMENTS
Tank Shell			
Tank Heads			
Piping			
Valves			
Valve Gaskets			
Manhole Locking Devices			
Manhole Gaskets			
Emergency Devices & Valves			
Tightness of Bolts & Devices			
Remote Closure Devices			
Self-Closing Stop Valves			
Fusible Elements			
Frame & Barrel Supports			
Ring Stiffeners			
Attachment of Appurtenances			
Upper Coupler Assembly			
Accident Damage Protection			
Pressure Relief Valves			
Metal Certification Plate			
Required Markings			

Upper Coupler Dropped & Inspected: Y N Re-closing pressure relief valves removed & tested: Y N  
Cargo Tank continued qualification:  Returned to service  Withdrawn from service

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

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

I CERTIFY THAT THE INSPECTION/ TEST NOTED ON THIS FORM WAS PERFORMED BY ME AND ALL REQUIRED ENTRIES WERE PROPERLY RECORDED.

\_\_\_\_\_  
Registered Inspector's Signature Date

\_\_\_\_\_  
Cargo Tank Owner or Authorized Representative's Signature Date

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(d) *External visual inspection and testing.* The following applies to the external visual inspection and testing of cargo tanks:

(1) Where insulation precludes a complete external visual inspection as required by paragraphs (d)(2) through (d)(6) of this section, the cargo tank also must be given an internal visual inspection in accordance with paragraph (e) of this section. If external visual inspection is precluded because any part of the cargo tank wall is externally lined, coated, or designed to prevent an external visual inspection, those areas of the cargo tank must be internally inspected. If internal visual inspection is precluded because the cargo tank is lined, coated, or designed so as to prevent access for internal inspection, the tank must be hydrostatically or pneumatically tested in accordance with paragraph (g)(1)(iv) of this section. Those items able to be externally inspected must be externally inspected and noted in the inspection report.

(2) The external visual inspection and testing must include as a minimum the following:

(i) The tank shell and heads must be inspected for corroded or abraded areas, dents, distortions, defects in welds and any other conditions, including leakage, that might render the tank unsafe for transportation service;

(ii) The piping, valves, and gaskets must be carefully inspected for corroded areas, defects in welds, and other conditions, including leakage, that might render the tank unsafe for transportation service;

(iii) All devices for tightening manhole covers must be operative and there must be no evidence of leakage at manhole covers or gaskets;

(iv) All emergency devices and valves including self-closing stop valves, excess flow valves and remote closure devices must be free from corrosion, distortion, erosion and any external damage that will prevent safe operation. Remote closure devices and self-closing stop valves must be functioned to demonstrate proper operation;

(v) Missing bolts, nuts and fusible links or elements must be replaced, and loose bolts and nuts must be tightened;

(vi) All markings on the cargo tank required by parts 172, 178 and 180 of this subchapter must be legible;

(vii) [Reserved]

(viii) All major appurtenances and structural attachments on the cargo tank including, but not limited to, suspension system attachments, connecting structures, and those elements of the upper coupler (fifth wheel) assembly that can be inspected without dismantling the upper coupler (fifth wheel) assembly must be inspected for any corrosion or damage which might prevent safe operation;

(ix) For cargo tanks transporting lading corrosive to the tank, areas covered by the upper coupler (fifth wheel) assembly must be inspected at least once in each two year period for corroded and abraded areas, dents, distortions, defects in welds, and any other condition that might render the tank unsafe for transportation service. The upper coupler (fifth wheel) assembly must be removed from the cargo tank for this inspection.

(3) All reclosing pressure relief valves must be externally inspected for any corrosion or damage which might prevent safe operation. All reclosing pressure relief valves on cargo tanks carrying lading corrosive to the valve must be removed from the cargo tank for inspection and testing. Each reclosing pressure relief valve required to be removed and tested must be tested according to the requirements set forth in paragraph (j) of this section.

(4) Ring stiffeners or other appurtenances, installed on cargo tanks constructed of mild steel or high-strength, low-alloy steel, that create air cavities adjacent to the tank shell that do not allow for external visual inspection must be thickness tested in accordance with paragraphs (i)(2) and (i)(3) of this section, at least once every 2 years. At least four symmetrically distributed readings must be taken to establish an average thickness for the ring stiffener or appurtenance. If any thickness reading is less than the average thickness by more than 10%, thickness testing in accordance with paragraphs (i)(2) and (i)(3) of this section must be conducted from the inside of the cargo tank on the area of the tank wall covered by the appurtenance or ring stiffener.

(5) Corroded or abraded areas of the cargo tank wall must be thickness tested in accordance with the procedures set forth in paragraphs (i)(2), (i)(3), (i)(5) and (i)(6) of this section.

(6) The gaskets on any full opening rear head must be:

(i) Visually inspected for cracks or splits caused by weather or wear; and

(ii) Replaced if cuts or cracks which are likely to cause leakage, or are of a depth one-half inch or more, are found.

(7) The inspector must record the results of the external visual examination as specified in §180.417(b).