



Rhode Island Department of Environmental Management

Office of Air Resources

Stage I Testing Information

The following document is to provide information on the Stage I testing requirement for gasoline dispensing facilities. This document only covers testing requirements for the Office of Air Resources and does not cover testing otherwise required by either the Underground Storage Tank Management Group or the Aboveground Storage Tank Management Group. Although all related programs work together in this field, the owner/operator of a gasoline dispensing facility is responsible for knowing and complying with regulations and requirements of all programs applicable. Always be sure to check with your Town or City prior to beginning work.

Required Annual Testing for Stage I Systems

| Test Name | CARB Test Method | Test Description |
|--|------------------|--|
| Pressure Decay Test (2-inch test) | TP-201.3 | Quantifies vapor tightness of the vapor recovery system installed at a gasoline dispensing facility. |
| Vapor Tie Test | TP-201.3C | Verified underground tanks have been manifolded (connected by vapor piping). Multiple tanks must be manifolded together with vapor piping to distribute the collected vapors evenly to all tanks. |
| Pressure/Vacuum Vent Valve Test | TP-201.1E | Determines if Pressure/Vacuum Vent Valves are opening at the correct pressure setting and closing at the correct vacuum setting. |
| Static Torque Rotatable Adaptor Test | TP-201-1B | Quantifies the amount of static torque required to start the movement of a rotatable Phase I adaptor to ensure 360-degree rotation. |
| Leak Rate of Drop Tube/Drain Valve Test | TP-201.C | Quantifies the leak rate of drop tube/drain valve assembly when the spill container drain valve is configured to pass liquid into the drop tube. |
| Leak Rate of Drop Tube/Overfill Prevention Test | TP-201.1D | Quantifies the leak rate of overfill prevention devices located in the Phase I product drop tube on two-point Phase I systems. This procedure can also be used to quantify the leak rate of a spill container drain valve which passes liquid directly into the Phase I drop tube. |
| If EVR spill buckets are installed with a drain valve (TP-201.1C) or EVR buckets are installed with EVR overfill prevention drop tubes (TP-201.1D) | | |

Testing Requirements for Routine Maintenance, Minor and Substantial Modifications

| Modification/Repair | Testing Required |
|---|---|
| Routine Maintenance | |
| Replace bucket plow ring | No Test |
| Replace “O” rings and seals | No Test |
| Replace/Repair submersible pump/suction pipe | No Test |
| Replace/Repair product adaptors, vapor adaptor, fill caps, vapor caps, riser caps, drain valves | No Test |
| Minor Modifications | |
| Replace product drop tube | Pressure Decay |
| Replace spill bucket with CARB-Certified EVR bucket | Pressure Decay |
| Isolate diesel or other motor vehicle fuel storage tank not in use from Stage I system | Pressure Decay |
| Replace/repair overfill prevention device | Pressure Decay |
| Substantial Modification | |
| Excavate below shear valve or tank pad to repair, replace or install vent piping, vapor space tie bar, two-point or coaxial Stage I systems | Full System Test (all applicable tests) |
| Excavate below shear valve or tank pad to repair or replace Tank | Full System Test (all applicable tests) |
| Replace/Repair >50% of the Stage I Vapor Recovery System | Full System Test (all applicable tests) |
| Replace/Repair an Aboveground Storage Tank | Full System Test (all applicable tests) |

Other testing requirements for Underground Storage Tanks or Aboveground Storage Tanks are not covered in this document but can be found on either programs website.

UST: <http://www.dem.ri.gov/programs/wastemanagement/ust/>

AST: <http://www.dem.ri.gov/programs/emergencyresponse/asts.php>