

SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 61.3.1 - TRANSFER OF GASOLINE INTO STATIONARY UNDERGROUND STORAGE TANKS

(Adopted and Effective: 03/01/06)

(a) **APPLICABILITY**

(1) Except as otherwise provided in Section (b), this rule is applicable at any gasoline dispensing facility where gasoline is transferred from any mobile transport tank into any stationary underground storage tank with a capacity of 250 gallons (946 liters) or more.

(2) Transfer of gasoline from any mobile transport tank into any stationary underground storage tank that is located at a bulk plant or bulk terminal and is subject to the requirements of Rule 61.1 shall not be subject to this rule.

(b) **EXEMPTIONS**

The provisions of this rule shall not apply to the following:

(1) Transfer of gasoline into or from any stationary underground storage tank or any mobile transport tank used exclusively for fueling agricultural wind machines.

(2) Transfer of gasoline into any stationary underground storage tank when conducted by the San Diego County Department of Weights and Measures.

(3) Transfer of gasoline from any mobile transport tank into any stationary underground storage tank with a capacity of 550 gallons (2,080 liters) or less and located at any non-retail gasoline dispensing facility.

(c) **DEFINITIONS**

Notwithstanding the definitions provided in Rule 61.0, for the purposes of this rule the following definitions shall apply:

(1) **“Adaptor or Coupler”** means a fitting on a riser pipe that provides a leak-proof seal between the riser pipe and a delivery elbow during the gasoline delivery.

(2) **“Annual Gasoline Throughput”** means the total volume of gasoline dispensed during any calendar year at a gasoline dispensing facility.

(3) **“Annual Inspection”** means an inspection conducted once every 12 calendar months.

(4) **“Bulk Plant”** means any facility at which gasoline is received from mobile transport tanks for storage and is transferred into mobile transport tanks.

(5) **“Bulk Terminal”** means any primary distributing facility for delivering gasoline to bulk plants, service stations and other distribution points; and where delivery to the facility is by means other than by truck.

(6) **“CARB”** means California Air Resources Board.

(7) **“CARB Certification Procedure (CP)”** means a CARB issued document that provides performance standards and specifications for vapor recovery systems, and identifies test procedures for determining compliance with such standards and specifications.

(8) **“CARB Certified Phase I System or Equipment”** means a Phase I vapor recovery system, equipment, or any component that has been certified by CARB pursuant to Section 41954 of the California Health and Safety Code.

(9) **“CARB Executive Order”** means a document issued by the Executive Officer of the California Air Resources Board that specifies the requirements for specific vapor control equipment and the procedures used in installing, maintaining, inspecting, or testing vapor recovery systems.

(10) **“CCR”** means California Code of Regulations.

(11) **“Cargo Tank”** means any container, including associated pipes and fittings that is used for the transportation of gasoline on any highway and is required to be certified in accordance with Section 41962 of the California Health and Safety Code.

(12) **“Contractor/Installer”** means a person engaged in the installation, modification, and/or repair of a new or existing vapor recovery system and/or its components at a gasoline dispensing facility. This definition does not include the owner or operator of the gasoline dispensing facility or an employee of such owner or operator.

(13) **“Delivery Elbow”** means a quick connect/disconnect type coupler that joins a hose from a cargo tank to a facility’s storage tank riser pipe adaptor or coupler.

(14) **“Gasoline”** means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 4.0 pounds per square inch or greater and meeting the requirements of Title 13 CCR, Section 2250 et seq. and as further defined in Title 13 CCR Section 2250(b).

(15) **“Gasoline Dispensing Facility (GDF)”** means a stationary facility, consisting of one or more storage tanks and associated equipment, that receives, stores, and dispenses gasoline.

(16) **“Gasoline Vapor Control Efficiency (Volumetric Efficiency)”** means a control efficiency of the Phase I vapor recovery system (E) expressed as

$$E = (V_t - V_{vsi}) / (V_t) \times 100\%, \text{ where:}$$

V_t = total volume of gasoline vapors returned to the cargo tank;

V_{vsi} = total volume of gasoline vapors discharged to the atmosphere.

(17) **“Gasoline Vapors”** means organic compounds in vapor form displaced during gasoline transfer and dispensing operations, including any entrained liquid gasoline.

(18) **“Leak Detection Solution”** means any solution containing soap, detergent or similar materials that promote formation of bubbles at the site of any escaping vapors.

(19) **“Liquid Leak”** means any visible liquid leak of gasoline at a rate in excess of three drops per minute.

(20) **“Liquid Leak for Cargo Tanks”** means a liquid gasoline spill from gasoline delivery or vapor return lines that has a volume greater than 30 milliliters during any single disconnect operation.

(21) **“Mobile Transport Tank”** means any cargo tank or trailer, railroad tank car, or tanker used to transport gasoline.

(22) **“Monthly Gasoline Throughput”** means the total volume of gasoline dispensed during any calendar month at a gasoline dispensing facility.

(23) **“Over-fill Prevention Device”** means a device designed to stop the delivery of gasoline to a storage tank to prevent the over-filling of the tank and potential spillage.

(24) **“Phase I Vapor Recovery System”** means a gasoline vapor recovery system or equipment that recovers the vapors generated during the transfer of gasoline from mobile transport tanks into stationary underground storage tanks.

(25) **“Phase II Vapor Recovery System”** means a gasoline vapor recovery system or equipment that recovers the vapors generated during the refueling of motor vehicles and from the storage of gasoline at the gasoline dispensing facility.

(26) **“Popetted Dry Break”** means a spring-loaded valve that prevents vapor from escaping through the vapor recovery riser pipe of a storage tank.

(27) **“Pressure/Vacuum Valve”** means a valve that is installed on the vent pipes of the gasoline storage tanks to relieve pressure or vacuum-build-up at preset values of pressure and vacuum.

(28) **“Reid Vapor Pressure”** means an absolute vapor pressure of gasoline or other volatile petroleum products at 100° F (37.8° C).

(29) **“Retail Gasoline Dispensing Facility”** means any gasoline dispensing facility subject to the payment of California sales tax for the sale of gasoline.

(30) **“Riser Pipe”** means a pipe mounted to the top of a stationary underground storage tank.

(31) **“Safety Features”** means all the features outlined in the applicable test method to ensure proper and safe testing, including but not limited to pressure/vacuum valves, safety cones, ladders, and grounding equipment.

(32) **“Spill Box”** means an enclosed container around a Phase I gasoline vapor or liquid adaptor or both that is designed to collect gasoline spillage resulting from disconnecting the delivery hoses from the gasoline vapor or liquid adaptors.

(33) **“Stationary Underground Storage Tank”** means any tank, reservoir, or other underground container that is used to store, but not transport, gasoline.

(34) **“Submerged Drop-Tube”** means any drop-tube which has its discharge opening entirely submerged when the liquid level is six inches above the bottom of the tank.

(35) **“Title 17 Defect”** means a defect substantially impairing the effectiveness of vapor recovery systems as specified in Title 17 CCR or in the applicable CARB Executive Order.

(36) **“Vapor Leak”** means a gasoline vapor concentration equal to 10,000 parts per million by volume (ppmv) or more as measured on a methane calibrated gas detector, at a distance of one centimeter from the source and in accordance with the U.S. Environmental Protection Agency Test Method 21.

(37) **“Vapor Tight”** means an absence of a vapor leak or an absence of soap bubbles as indicated by a leak detection solution for a component without an allowable leak rate.

(38) **“Vapor Return Hose”** means a part of the Phase I vapor recovery system which carries gasoline vapors from the stationary underground storage tank into the unloading cargo tank.

(39) **“Vent Pipe”** means any pipe which is designed to convey an air/gasoline vapor mixture from the vapor recovery system to the atmosphere.

(d) EQUIPMENT AND OPERATION REQUIREMENTS

(1) A person shall not supply, offer for sale, sell, install or allow the installation of any Phase I vapor recovery system or any of its components, unless the system and components are CARB certified. All components shall be certified for use with the CARB-certified Phase I vapor recovery system installed and shall be clearly identified by a permanent identification showing the manufacturer’s name, model number, and a unique serial number unless the component is specifically exempt from this identification requirement by CARB.

(2) On and after September 1, 2006, a contractor/installer shall not install, modify, or repair any Phase I vapor recovery system or component, unless they have successfully completed a manufacturer’s training program applicable to such system and a relevant training program specified by the Air Pollution Control Officer. A copy of current documents demonstrating that such programs have been successfully completed shall be made available to the Air Pollution Control Officer upon request.

(3) A person shall not operate any gasoline dispensing facility unless all applicable portions of the following requirements are met:

(i) Each stationary underground storage tank is equipped with a CARB-certified permanent submerged drop-tube.

(ii) Each stationary underground storage tank is equipped with a CARB-certified Phase I vapor recovery system that has a minimum gasoline vapor control efficiency of 98.0% by volume and a mass emission factor for systems with vapor processors not exceeding 0.15 pounds of gasoline vapors per 1,000 gallons of gasoline dispensed.

(iii) The Phase I vapor recovery system and associated components are installed, maintained, and operated free of Title 17 defects and in accordance with the most recent applicable CARB certification procedures, CARB Executive Orders, and the manufacturer's Installation, Operation, and Maintenance manual.

(iv) When required by the applicable CARB Executive Order, the Phase I vapor recovery system is equipped with:

(A) CARB certified gasoline vapor and liquid anti-rotational couplers or rotatable adaptors. Each gasoline vapor and liquid rotatable adaptor shall have a static rotational torque not to exceed 108 pound-inch (9 pound-foot); and

(B) CARB certified poppeted dry breaks or other CARB certified poppeted fittings on the vapor return coupler that are vapor tight when closed; and

(C) CARB certified pressure/vacuum (P/V) valve(s) on the stationary underground storage tank vent pipe(s). The tank vent pipes shall be manifolded when required by the most recent applicable CARB Executive Order; and

(D) CARB certified spill boxes each having an integral drain valve or other devices that are certified by CARB to return spilled gasoline to the stationary underground storage tank. Each spill box shall be maintained free of standing gasoline and free of any debris that may interfere with the seating of the drain valve. Spill boxes used exclusively for Phase I vapor connections shall not have drain valves.

(v) The Phase I vapor recovery equipment and associated components, except for components with an allowable leak rate as specified by the most recent applicable CARB Executive Order and Certification Procedure, are maintained free of liquid leaks and are vapor tight. Components with an allowable leak rate shall operate within such rate.

(vi) During a gasoline transfer from a cargo tank to any stationary underground storage tank each liquid gasoline delivery hose is connected or disconnected only while the associated vapor return hose is connected to the cargo tank and the storage tank vapor adaptor and is functional. This requirement shall apply to the owner/operator of the gasoline dispensing facility and to any person conducting the gasoline transfer.

(vii) During a gasoline transfer from a cargo tank to any stationary underground storage tank, there are no liquid leaks from the Phase I gasoline vapor return hose and liquid gasoline delivery hose. During the disconnection of either the

vapor return hose or liquid gasoline delivery hose, there are no liquid leaks as defined in Subsection (c)(20). This requirement shall apply to the owner/operator of the gasoline dispensing facility and to any person conducting the gasoline transfer.

(e) INSPECTION AND MAINTENANCE PROGRAM

On and after September 1, 2006, an owner/operator of any gasoline dispensing facility shall implement an inspection and maintenance program sufficient to ensure the proper operation of the Phase I vapor recovery system. The program shall include, at a minimum, the following:

(1) A periodic inspection to be conducted with a frequency as specified in Table 1 to ensure proper operating conditions of all components of the Phase I vapor recovery system, including but not limited to:

- (i) All stationary underground storage tank fill caps and gaskets, to verify the components are in place and in good condition; and
- (ii) All stationary underground storage tank popped dry breaks, gasoline vapor and liquid adaptors, to verify they are operable and sealing properly; and
- (iii) All stationary underground storage tank spill boxes, to verify there is no standing gasoline or debris in the spill boxes and that drain valves are seating properly.

Table 1

Type of Gasoline Dispensing Facility	Frequency of Inspection
Retail	Once per calendar week
Non-Retail (with Phase I and II)	Once per calendar week
Non-Retail (with Phase I only)	Once per calendar month

(2) An annual inspection to ensure compliance with all applicable Air Pollution Control District (District) rules and regulations, and all permit conditions. The inspection shall verify that:

- (i) The District permit is current and posted;
- (ii) The facility complies with all permit conditions;
- (iii) The Phase I vapor recovery system is properly installed and complies with the most recent applicable CARB certification procedures and CARB Executive Orders;
- (iv) All stationary underground storage tanks have gasoline submerged drop-tubes installed and not damaged; and
- (v) The vent pipes are equipped with the required pressure/vacuum valves and each such valve is properly installed.

In addition, the inspection of components specified in Subsections (e)(2)(iv) and (e)(2)(v) above shall be conducted each time the specified components are removed or replaced for any purpose.

(3) Maintenance Procedures

(i) Except as provided in Subsection (e)(3)(ii) below, any component, device, or system identified and recorded by the owner/operator as not being in good condition or not operating properly shall be repaired, replaced, or adjusted within seven calendar days of detection in a manner that will bring the facility into compliance with this rule and the most recent applicable CARB Executive Orders. Upon request and for good cause, the Air Pollution Control Officer may allow an additional seven calendar days for the repairs, replacements, or adjustments specified above to be made.

(ii) Any component, device or system having a Title 17 defect shall not be used or made available for use.

(4) Any additional inspection and alternative maintenance procedures that may be required by the most recent applicable CARB Executive Orders or the Installation and Maintenance Manuals as approved by CARB.

(f) **SOURCE TESTING**

(1) Within 60 calendar days of the installation date of a new or modified gasoline dispensing facility, an initial compliance source test shall be conducted as required by the applicable Authority to Construct and the most recent applicable CARB Executive Orders.

(2) Periodic compliance source tests shall be conducted at least once every calendar year and in accordance with the schedule specified by the Air Pollution Control Officer. More frequent tests may be required as determined necessary by the Air Pollution Control Officer to ensure compliance with this rule.

(3) Any person conducting the tests specified in Subsections (f)(1) or (f)(2) above shall have completed the South Coast Air Quality Management District's orientation class for testing and any subsequently required refresher classes or alternative training approved by the Air Pollution Control Officer, and any training or certifications required by CARB or a system's manufacturer. Such person shall make available to the District, at the time of the test and any other time upon request, the following:

(i) A copy of a current certificate from the South Coast Air Quality Management District, CARB, system manufacturer and/or from other approved training; and

(ii) Records of equipment calibrations performed as required by the applicable test procedures.

(4) Any person conducting the tests specified in Subsection (f)(1) or (f)(2) above shall conduct such tests in accordance with the procedures specified in the Authority to

Construct, Permit to Operate, and the most recent applicable CARB Executive Orders and Certification Procedures.

(5) Any person conducting the tests specified in Subsection (f)(1) or (f)(2) shall, within 15 calendar days of the completion of such test, and within 15 calendar days of the completion of a retest in the event of a failed or invalid test, provide the owner or operator of the gasoline dispensing facility a complete and accurate test report containing all the information specified in Subsection (g)(3) of this rule.

(g) RECORDKEEPING

An owner/operator of any gasoline dispensing facility shall maintain at a minimum the following information:

- (1) Records of inspections performed as required by Section (e) of this rule.
- (2) Records of all malfunctioning components, including the date(s) such components were identified and repaired or replaced, and any other records and information required by the most recent applicable CARB Executive Orders.
- (3) Records of initial and periodic compliance source tests, which include at a minimum:
 - (i) Date and time of each test; and
 - (ii) Name, affiliation, address, and phone number of the person(s) who performed the test; and
 - (iii) For a retest following a failed initial or periodic compliance source test, description of repairs performed; and
 - (iv) Copies of all test reports, including test equipment calibration date(s), test results and failed test data, in District-approved format and, for a test that fails, a description of the reasons for the test failure.
- (4) Monthly gasoline throughput records.

Except as provided below, all information specified in Subsections (g)(1) through (g)(4) above, shall be maintained on site for a period of at least three years. The most recent applicable CARB Executive Orders, and the Installation and Maintenance Manuals approved by CARB, shall be maintained on site at all times. All such information shall be made available to the District upon request. Records for gasoline dispensing facilities that are not staffed may be kept at an alternative location approved in writing by the Air Pollution Control Officer.

(h) TEST METHODS

- (1) The control efficiency of Phase I vapor recovery systems shall be determined in accordance with the CARB Test Method TP-201.1 – Volumetric Efficiency of Phase I Vapor Recovery Systems, or the most recent applicable test method approved by CARB.

(2) The mass emission factor for systems with processors shall be determined in accordance with the CARB Test Method TP-201.1A – Emission Factor for Phase I Systems at Dispensing Facilities or the most recent applicable test method approved by CARB.

(3) The static torque of gasoline vapor recovery and liquid adaptors shall be determined in accordance with CARB Test Method TP-201.1B – Static Torque of Rotatable Phase I Adaptors or the most recent applicable test method approved by CARB.

(4) Component leak rates, pursuant to Subsection (d)(3)(v) of this rule, shall be determined in accordance with the most recent applicable test methods, test procedures, and certification procedures approved by CARB.

(5) Reid Vapor Pressure shall be determined in accordance with the American Society for Testing and Materials (ASTM) Test Method D323-99a, or its most current version.

(i) **(RESERVED)**