



Enhanced Regulatory Outreach Program
Maricopa County Air Quality Department

Notice of Stakeholder Workshop

AQ-2015-008 Proposed Rule 353

Storage And Loading Of Gasoline At Gasoline Dispensing Facilities

Date/Time: Monday, February 22, 2016 at 10:30 am

Location: 1001 N. Central Avenue, Floor 5 Classroom*

The Maricopa County Air Quality Department will conduct a Stakeholder Workshop to discuss proposed revisions to AQ-2015-008-Rule 353. The draft rule to be discussed during this workshop is attached to this announcement.

Discussion will focus on:

- Propose to revise the following throughout the rule:
 - To remove gasoline cargo tank requirements as originally proposed.
 - To delete the word "person" and insert the words "owner or operator"
 - To delete past compliance dates
 - To revise or add specific rule section references throughout rule
 - To add the word "stationary" to describe type of storage tanks
- Propose to revise Section 101 (Purpose)
- Propose to revise Section 102 (Applicability)
- Propose to revise Section 103 (Exemptions)
- Propose the following in Section 200 (Definitions):
 - To revise CARB-CERTIFIED
 - To add COAXIAL VAPOR BALANCE SYSTEM
 - To add DUAL-POINT VAPOR BALANCE SYSTEM
 - To revise GASOLINE
 - To delete GASOLINE DELIVERY VESSEL
 - To add GASOLINE CARGO TANK
 - To delete GASOLINE DISPENSING OPERATION
 - To add GASOLINE DISPENSING FACILITY
 - To delete INSTALLER
 - To add MARICOPA COUNTY (MC) VAPOR TIGHTNESS TEST
 - To delete OFFSET FILL LINE
 - To revise POPPETTED DRY BREAK
 - To add PURGING
 - To delete SIDE FILL PIPE
 - To revised STAGE I VAPOR RECOVERY
 - To revise STATIONARY DISPENSING TANK
 - To add SUBMERGED FILL
 - To delete TOP FILL or VERTICAL FILL PIPE
 - To revise VAPOR LOSS CONTROL DEVICE
 - To revise VAPOR TIGHT
- Propose to revise Section 304 (Loading of Gasoline)
- Propose to revise Section 305 (Control of VOC Vapors)
- Propose to add the test title to all test methods in Section 504 (Test Methods)

Additional information is available on the Enhanced Regulatory Outreach Program (EROP) website (www.maricopa.gov/regulations). The Stakeholder Workshop is an informal meeting for all interested parties, is free of charge and no advance registration or RSVP is required. If you would like to remotely attend this workshop, please contact Michelle Mada at (602) 372-1465.

*If you will be attending this workshop in-person, when you arrive at 1001 North Central Avenue, please check-in in Suite #125 then proceed to the Floor 5 classroom. Thank you for participating in the rulemaking process.



The following is a summary of revisions to draft Rule 353 (Storage And Loading Of Gasoline At Gasoline Dispensing Facilities) dated February 22, 2016, since the previous workshop for draft Rule 353 conducted on September 14, 2015:

- Propose to revise the following throughout the rule:
 - To remove gasoline cargo tank requirements as originally proposed.
 - To delete the word “person” and insert the words “owner or operator”
 - To delete past compliance dates
 - To revise or add specific rule section references throughout rule
 - To add the word “stationary” to describe type of storage tanks
- Propose to revise Section 101 (Purpose)
- Propose to revise Section 102 (Applicability)
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 - To revise VAPOR LOSS CONTROL DEVICE
 - To revise VAPOR TIGHT
- Propose to revise Section 304 (Loading of Gasoline)
- Propose to revise Section 305 (Control of VOC Vapors)
- Propose to add the test title to all test methods in Section 504 (Test Methods)



**NOTE: THIS IS A REVISED PROPOSED RULE 353
 (FORMERLY PROPOSED as RULE 352)
 Underline and Strikeout Version**

**REGULATION III – CONTROL OF AIR CONTAMINANTS
 RULE 353
 STORAGE AND LOADING OF GASOLINE ~~IN STATIONARY DISPENSING TANKS~~ AT GASOLINE
 DISPENSING FACILITIES**

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Revised 07/13/88
 Revised 04/06/92
 Revised 06/16/99
 Revised 09/25/13

Revised 07/13/1988; Revised 04/06/1992; Revised 06/16/1999; Revised 09/25/2013; and Revised MM/DD/YYYY

**MARICOPA COUNTY
 AIR POLLUTION CONTROL REGULATIONS
 REGULATION III – CONTROL OF AIR CONTAMINANTS**

RULE 353

STORAGE AND LOADING OF GASOLINE IN STATIONARY DISPENSING TANKS AT GASOLINE DISPENSING FACILITIES

SECTION 100 – GENERAL

- 101** **PURPOSE:** To limit ~~VOC (volatile organic compound)~~ emissions of volatile organic compounds (VOC) from gasoline stored in stationary dispensing tanks and from gasoline delivered into such tanks. during storage and loading of gasoline at gasoline dispensing facilities.
- 102** **APPLICABILITY:** This rule applies to an owner or operator who operates a is applicable to gasoline stored in or transferred into any stationary dispensing tank with a capacity of more than 250 gallons (946 l). This includes gas stations and other gasoline dispensing facility, including those located at airports.
- 103** **EXEMPTIONS:**
- 103.1** This rule does not apply to the following fuels:
- a.** Aviation fuel.
 - b.** Diesel.
 - c.** Liquefied petroleum gas (LPG).
- 103.2** **Bulk Gasoline Plant or Bulk Gasoline Terminal:** This rule does not apply to a bulk gasoline plant or a bulk gasoline terminal as defined in Rule 351 of these rules.
- 103.3** **Stationary Gasoline Dispensing Tanks for Farm Operations:** Any stationary gasoline dispensing tank used exclusively for the fueling of implements of normal farm operations must comply with Section 302 (General Housekeeping Requirements), but is exempt from all other requirements of this rule.
- 103.4** **Section 305 Exemption:** The Stage 1 Vapor Recovery System provisions of Section 305 of this Rule shall not apply to the following stationary gasoline dispensing tanks:
- a.** Non-Resale Gasoline Dispensing Operations: Any stationary gasoline dispensing facility receiving less than 120,000 gallons of gasoline in any 12 consecutive calendar months, dispensing no resold gasoline, and having each stationary gasoline dispensing tank equipped with a permanent submerged fill pipe, is exempt from Section 305 of this rule. However, any operation shall become subject to the provisions of Section 305 of this rule by exceeding the 120,000 gallon threshold, and shall remain subject to such provisions even if annual emissions later fall below this threshold.
 - b.** Stationary Gasoline Dispensing Tanks Of 1000 Gallons Or Less: Any stationary gasoline dispensing tank having a capacity of 1000 gallons (3785 l) or less which was installed prior to October 2, 1978, provided that such tank is equipped with a permanent submerged fill pipe. Where, because of government regulation including, but not limited to, Fire Department codes, such a fill pipe cannot be installed, the gasoline shall be delivered into the tank using a nozzle extension that reaches within 6 inches of the tank bottom.



103.5 Section 304 Exemption: The owner or operator of a gasoline dispensing facility that is unattended or when there is only one owner or operator under control of the gasoline dispensing facility present, the owner or operator of the gasoline dispensing facility is exempt from Section 304 of this rule.

103.6 Section 502.2 Exemption: Gasoline dispensing facilities that receive gasoline loads less than weekly are exempt from weekly record keeping requirements in Section 502.2 but shall comply with all other record keeping requirements in Section 502.2 of this rule.

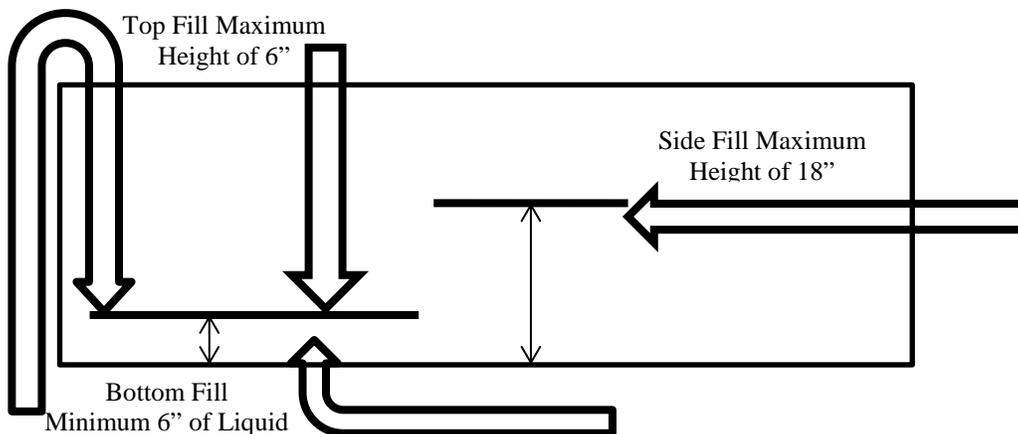
SECTION 200 – DEFINITIONS: For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of these rules. In the event of any inconsistency between any of the Maricopa County air pollution control rules, the definitions in this rule take precedence.

- 201 **CARB-CERTIFIED:** A vapor control system, subsystem, or component that has been specifically approved by system configuration and manufacturer’s name and model number in an executive order of the California Air Resources Board (CARB), pursuant to Section 41954 of the California Health and Safety Code. ~~Such orders are included in CARB’s publication, “Gasoline Facilities – Phase I & II”, which is available as set forth in subsection 503.4.~~
- 202 **COAXIAL VAPOR BALANCE SYSTEM:** A type of vapor balance system in which the gasoline vapors are removed through the same opening through which the fuel is delivered.
- 203 **DUAL-POINT VAPOR BALANCE SYSTEM:** A type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.
- 203 204 **EXCESS GASOLINE DRAINAGE:** More than 10 milliliters (2 teaspoonsful) of liquid gasoline lost from the end of a fill hose or vapor hose in the process of connecting or disconnecting the hose; or any quantity of gasoline escaping out the end of such a hose that wets any area(s) on the ground having an aggregate area greater than 113 square inches, or the perimeter of which would encompass a circle of 12 inches (30.5 cm) diameter. This does not include drainage into a fill tube’s spill containment receptacle.
- 204 205 **GASOLINE:** ~~Any petroleum distillate or blend of petroleum distillate with other combustible liquid(s), such as alcohol, that, petroleum distillate/alcohol blend, petroleum distillate/organic compound blend, or alcohol having a Reid vapor pressure between 4.0 and 14.7 psi (200–760 mm Hg.), as determined by Section 504.2 of this rule, and which is used as a fuel for internal combustion engines. and has a vapor pressure between 4.0 and 14.7 psi (200–760 mm Hg.), as determined by the applicable method pursuant to subsections 503.2 and 504.2. For the purposes of this rule, liquefied petroleum gas (LPG) is excluded.~~
- 205 **GASOLINE DELIVERY VESSEL:** ~~Any vehicular mounted container such as a tanker truck, tank trailer, cargo tank or any other wheel mounted container used to transport gasoline. This includes any hoses the vessel carries through which deliveries must be made.~~
- 206 **GASOLINE CARGO TANK:** A delivery tank truck or railcar which is loading or unloading gasoline, or which has loaded or unloaded gasoline on the immediately previous load. This includes any hoses the vessel carries through which deliveries must be made.
- 206 **GASOLINE DISPENSING OPERATION :** ~~All gasoline dispensing tanks and associated equipment located on one or more contiguous or adjacent properties under the control of the same person (or persons under common control).~~
- 207 **GASOLINE DISPENSING FACILITY:** Any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment,



boats, test engines, landscaping equipment, generators, pumps, and other gasoline fueled engines and equipment.

- ~~207~~ **208** **GASOLINE VAPORS:** Vapors, originating from liquid gasoline, that are usually found in mixture with air. Included are any droplets of liquid gasoline or of gasoline vapor condensate that are entrained by the vapor.
- ~~208~~ **INSTALLER:** ~~The person, as defined in Rule 100, that installs VOC control equipment at a dispensing facility.~~
- ~~209~~ **209** **LEAK-FREE:** A condition in which there is no liquid gasoline escape or seepage of more than 3 drops per minute from gasoline storage, handling, and ancillary equipment, including, but not limited to, seepage and escapes from above ground fittings.
- 210** **MARICOPA COUNTY (MC) VAPOR TIGHTNESS TEST:** The complete pressure, vacuum, and vapor-valve testing of a gasoline cargo tank that is performed according to Maricopa County specifications as described in Rule 352 of these rules.
- ~~210~~ **OFFSET FILL LINE:** ~~Any dispensing tank's gasoline fill line (piping and fittings) which contains one or more bends.~~
- ~~211~~ **211** **POPPETTED DRY BREAK:** ~~A Stage 1 vapor recovery device~~ A type of vapor loss control equipment that opens only by connection to a mating device to ensure that no gasoline vapors escape from the stationary dispensing tank before the vapor return line is connected.
- ~~208~~ **212** **PURGING:** Removing, cleaning, or scouring out gasoline vapors from all or a portion of a gasoline cargo tank by active or passive means and emitting the vapors into the atmosphere.
- ~~212~~ **SIDE FILL PIPE:** ~~A fill pipe that enters a dispensing tank through the tank's side.~~
- ~~213~~ **213** **STAGE 1 VAPOR RECOVERY (VR) SYSTEM:** At a gasoline dispensing facility, the use of installed vapor recovery equipment designed to reduce by at least 90% the VOC vapor that would otherwise be displaced into the atmosphere from a stationary dispensing tank when gasoline is delivered into the tank by a delivery vessel. This reduction may be done either by capturing the displaced vapors within the delivery vessel, and or by processing the vapors on site with an emission processing device. (such as a VOC oxidizer).
- ~~202~~ **214** **STATIONARY DISPENSING TANK:** Any stationary tank which dispenses gasoline directly into a motorized vehicle's fuel tank, dispenses gasoline into an aircraft's fuel tank, or dispenses gasoline into a watercraft's fuel tank that directly fuels its engine(s). ~~This includes aircraft.~~
- 215** **SUBMERGED FILL:** Any discharge pipe or nozzle which meets the applicable specification as follows:
- 215.1** **Top-Filled Or Bottom-Filled Tanks:** The end of the discharge pipe or nozzle is totally submerged when the liquid level is six inches (15 cm) from the bottom of the tank.
- 215.2** **Side-Filled:** At its highest point within the storage tank less 2,000,000 gallon capacity, the end of the discharge pipe or nozzle is totally submerged when the liquid level is 18 inches (46 cm) from the bottom of the tank.
- 215.3** **Horizontal Filled:** At its highest point within a floating roof tank 2,000,000 gallons or greater (7,580,000 l) capacity, the end of the discharge pipe or nozzle may be up to 39.4 inches (1 meter) above the tank bottom if the discharge pipe or nozzle is kept completely submerged, including when the roof rests on its legs, except when the tank is being emptied completely.



- 214 **216** **TANK CAPACITY:** The maximum volume of liquid gasoline a particular tank is allowed to store while still complying with all applicable rules, including local, state, and Federal rules.
- 215 **TOP FILL or VERTICAL FILL PIPE:** A fill pipe that enters a dispensing tank through its top.
- 216 **217** **VAPOR LOSS CONTROL DEVICE EQUIPMENT:** Any piping, hoses, equipment, or devices which are used to collect, store and/or process VOC vapors at a service station or other gasoline dispensing operation.
- 217 **218** **VAPOR TIGHT:** A condition in which an organic vapor analyzer (OVA) or a combustible gas detector (CGD) at a potential VOC leak source shows either less than 10,000 ppm when calibrated with methane, or less than 1/5 of the lower explosive limit, when prepared according to the manufacturer and used according to subsection 504.3 of this rule. A condition in which a suitable detector at the site of (potential) leakage of vapor shows less than 10,000 ppmv when calibrated with methane; or the detector shows less than 1/5 LEL (lower explosive limit) subsequent to calibration with a gas specified by the manufacturer and is used according to the manufacturer's instructions.

~~SECTION 300—STANDARDS VAPOR LOSS CONTROL MEASURES REQUIRED: No person shall transfer or permit the transfer of gasoline from any delivery vessel into any stationary dispensing tank located above or below ground with a capacity of more than 250 gallons (946 l) unless the following conditions are met:~~

- 301 **BASIC TANK INTEGRITY:** No vapor or liquid escapes are allowed through a dispensing tank's outer surfaces, nor from any of the joints where the tank is connected to pipe(s), wires, or other system.
- 301.1 **VOC Emission Standard:**
- Gasoline delivery operations shall be vapor tight, as defined in Section 218, except for tanks exempted by Section 305 from Stage 1 vapor recovery requirements.
 - Tanks and their fittings shall be vapor tight except for the outlet of a pressure/vacuum relief valve on a dispensing tank's vent pipe. Specifically, this means that at a probe tip distance of 1 inch (2.5 cm) from a surface, no vapor escape shall exceed 1/5 of the lower explosive limit. This applies to tanks containing gasoline regardless of whether they are currently being filled, and to caps and other tank fittings.
- 301.2 **Leakage Limits—Liquid Leaks and Spills:**
- Gasoline storage and receiving operations shall be leak free. Specifically, no liquid gasoline escape of more than 3 drops per minute is allowed. This includes leaks through the walls of piping, fittings, fill hose(s), and vapor hose(s).



- b. ~~There shall be no excess gasoline drainage from the end of a fill hose or a vapor hose. Specifically, not more than 2 teaspoonsful of gasoline shall be lost in the course of a connect or disconnect process.~~

301.3 ~~Spill Containment Equipment: The entire spill containment system including gaskets shall be kept vapor-tight.~~

- a. ~~The Spill Containment Receptacle:
 - (1) ~~The outer surface of the spill containment receptacle shall have no holes or cracks and shall allow no vapors to pass from the dispensing tank through it to the atmosphere.~~
 - (2) ~~Spill containment receptacles shall be kept clean and free of foreign material at all times.~~
 - (3) ~~Spill containment receptacles shall be inspected at least weekly. Records of inspection and cleaning shall be kept according to subsection 502.2.~~~~
- b. ~~If the spill containment is equipped with a passageway to allow material trapped by the containment system to flow into the interior of the dispensing tank:
 - (1) ~~The passageway shall be kept vapor tight at all times, except during the short period when a person opens the passageway to immediately drain material trapped by the containment system into the tank.~~
 - (2) ~~The bottom of the receptacle shall be designed and kept such that no puddles of gasoline are left after draining through the passageway has ceased.~~~~
- c. ~~The dispensing tank owner/operator is responsible for assuring that before a delivery vessel leaves the premises after a delivery:
 - (1) ~~Any gasoline in a dispensing tank's spill containment receptacle has been removed.~~
 - (2) ~~Any gasoline that a person has taken out of a spill receptacle, as a free liquid or as absorbed into/onto other material removed from the receptacle, shall be contained in such a way that VOC emission is prevented; disposal in conformance with applicable hazardous waste rules is sufficient to meet this requirement.~~
 - (3) ~~Any plunger/stopper assembly is unimpeded and sealing correctly.~~~~
- d. ~~Criteria Of Violation/Exceedance for Spill Containment Receptacles: A reading on a CGD or OVA exceeding 1/5 LEL (10,000 ppm as methane) is an exceedance. The procedure for performing a determination is set forth in subsection 504.3.~~

302 ~~FILL PIPE REQUIREMENTS:~~

302.1 ~~Each fill line into a stationary dispensing tank shall be equipped with a permanent submerged fill pipe that has a discharge opening which is completely submerged when the liquid level is 6 inches above the tank bottom.~~

- a. ~~Threads, gaskets, and mating surfaces of the fill pipe assembly shall be designed and maintained tight. There shall be no liquid or vapor leakage at the joints of the assembly.~~
- b. ~~An owner/operator is responsible to assure that external fittings of a fill pipe assembly shall be inspected weekly to assure that cap, gasket, and piping are intact and are not loose.
 - (1) ~~A record of the inspection shall be made according to subsection 502.2.~~
 - (2) ~~An owner/operator shall act to prevent driver/deliverers from connecting the delivery hose coupling to a fill pipe coupling with so much twisting force that the fill pipe assembly is loosened. One method of complying is to have a CARB-certified swivel coupling as part of the fill pipe assembly (reference subsection 503.4 for CARB).~~~~

302.2 ~~Fill Pipe Caps:~~

- a. ~~The cap shall have a securely attached, intact gasket.~~



- b. ~~The cap and its gasket shall always function properly, latch completely so that it cannot then be easily twisted by hand, and have no structural defects.~~
- e. ~~The cap of a gasoline fill pipe shall always be fastened securely on the fill pipe except immediately before, during, and immediately after:~~
 - (1) ~~“Sticking” the tank to measure gasoline depth.~~
 - (2) ~~Delivering gasoline into the tank.~~
 - (3) ~~Doing testing, maintenance or inspection on the gasoline/vapor system.~~
- d. ~~Do not unfasten or remove a fill pipe cap unless every other fill pipe is either securely capped or connected to a delivery hose, except as otherwise needed for testing, maintenance, or inspection.~~

302.3 ~~Restrictions on Multiple Fill Pipes:~~

- a. ~~A tank installed after December 31, 1998, shall not be equipped with more than one fill pipe unless more than one fill pipe is specifically allowed in the Air Pollution Permit and there is a 2-point system having a properly installed vapor return pipe close to each fill pipe.~~
- b. ~~Restriction on Concurrent Delivery: An owner/operator of a dispensing tank fitted with more than 1 fill pipe shall prevent concurrent delivery of gasoline by a gasoline delivery vessel to more than 1 fill pipe of the tank by locking additional fill pipes shut or by using other permanent means, unless:~~
 - (1) ~~Concurrent delivery is specifically allowed in the facility’s Air Pollution Permit; and~~
 - (2) ~~All fill pipes in use are part of a 2-point vapor recovery system; and~~
 - (3) ~~Before making a concurrent delivery through a tank’s second fill pipe, an additional vapor return hose from the delivery vessel must first be attached to the vapor return line associated with the second fill pipe.~~

302.4 ~~Fill Pipe Obstructions:~~

- a. ~~Any type of screen and/or other obstructions in fill pipe assemblies shall be permanently removed by November 1, 1999, unless it is specifically allowed by an Air Pollution Permit or is CARB certified, as referenced in subsection 503.4.~~
- b. ~~A screen or other obstruction, allowed by Air Pollution Permit or CARB, shall be temporarily removed by the owner/operator of a dispensing tank prior to inspection by the Control Officer to allow measurements pursuant to this rule.~~

302.5 ~~Overfill Protection Equipment: Overfill prevention equipment shall be vapor tight to the atmosphere. Any device mounted within the fill pipe shall be so designed and maintained that no vapor from the vapor space above the gasoline within the tank can penetrate into the fill pipe or through any of the fill pipe assembly into the atmosphere.~~

303 ~~VAPOR RECOVERY SYSTEM:~~

303.1 ~~Gasoline vapors displaced from a dispensing tank by gasoline being delivered shall be handled by a Stage Vapor Recovery System, unless the tank is exempted by Section 305.~~

303.2 ~~Stage 1 Vapor Recovery System Configuration (Reference subsection 503.4 for identification of CARB certified components):~~

- a. ~~Replacement: After June 16, 1999, no part of a vapor recovery system for which there is a CARB specification shall be replaced with anything but CARB-certified components.~~
- b. ~~Vapor Valves:~~
 - (1) ~~All vapor return lines from dispensing tanks shall be equipped with CARB certified, spring loaded, vapor tight, poppetted dry break valves.~~



- (2) Vapor valves shall be inspected weekly to determine if closure is complete and gaskets are intact; a record shall be made pursuant to subsection 502.2.
 - e. Above Ground Systems: After June 16, 1999, an above ground dispensing tank shall have CARB certified fittings wherever CARB so specifies.
 - d. New Systems: Each new gasoline tank installation shall use CARB-certified fittings exclusively wherever CARB so specifies, and:
 - (1) Shall have its own separate, functioning 2 point vapor return line;
 - (2) Is allowed to have a combination vapor recovery system that in addition to having a separate 2 point Stage 1 vapor return line, also has stage 1 vapor piping/fittings linking it to one or more (other) gasoline dispensing tanks.
 - e. New Coaxial Prohibited:
 - (1) No coaxial fill pipes shall be installed after June 16, 1999, in new installations; and
 - (2) No coaxial fill pipes shall be reinstalled after June 16, 1999, in major modifications in which the top of the tank is exposed and the vapor port bung is pre-configured to accept vapor recovery piping.
- 304 EQUIPMENT MAINTENANCE AND USE REQUIRED: All vapor loss control equipment shall be installed as required, operated as recommended by the manufacturer, and maintained leak free, vapor-tight and in good working order.
- 304.1 Both the owner/operator of a dispensing tank and the driver/operator of a delivery vessel delivering gasoline to the fuel dispensing tank equipped with vapor recovery shall have responsibility to assure that vapor recovery equipment (if required by this rule) is properly connected and in use at all times while gasoline is actively being dropped/delivered.
 - 304.2 The owner/operator of a fuel dispensing tank not exempted by Section 305 shall refuse delivery of gasoline from a delivery vessel which does not bear a current pressure test certification decal issued by the Control Officer. This provision does not apply during times when the facility is unattended or there is only one person under control of the dispensing facility present.
 - 304.3 Coaxial Systems: Both spring loaded and fixed coaxial fill tubes shall be maintained according to the standards of their manufacturer(s) and be operated so that there is no obstruction of vapor passage from the tank to the delivery vessel.
- 305 EXEMPTIONS:
- 305.1 Dispensing Tanks for Farm Operations: Any stationary gasoline dispensing tank used exclusively for the fueling of implements of normal farm operations is exempt from this rule, except for cap, spills, and liquid leak age provisions in Section 301.
 - 305.2 The Vapor Recovery Provisions of Section 303 of this Rule Shall Not Apply to the Following Stationary Gasoline Dispensing Tanks:
 - a. Non-Resale Dispensing Operations From Non-Farm Tanks: Any stationary gasoline dispensing operation receiving less than 120,000 gallons of gasoline in any 12 consecutive calendar months, dispensing no resold gasoline, and having each gasoline dispensing tank equipped with a permanent submerged fill pipe pursuant to subsection 302.1, is exempt from Section 303. However, any operation shall become subject to the provisions of Section 303 of this rule by exceeding the 120,000 gallon threshold or not abiding by the restrictions, and shall remain subject to such provisions even if annual emissions later fall below this threshold.
 - b. Dispensing Tanks Of 1000 Gallons Or Less: Any stationary dispensing tank having a capacity of 1000 gallons (3785 l) or less which was installed prior to October 2, 1978, provided that such tank is equipped with a permanent submerged fill pipe. Where, because of government



~~regulation including, but not limited to, Fire Department codes, such a fill pipe cannot be installed, the gasoline shall be delivered into the tank using a nozzle extension that reaches within 6 inches of the tank bottom.~~

- e. ~~Dispensing Tanks with Offset Fill Lines: Any stationary dispensing tank installed prior to October 2, 1978, where the fill line between the fill connection and tank is offset.~~

SECTION 300 – STANDARDS

301 MANUFACTURERS, SUPPLIERS, AND OWNERS OR OPERATORS:

301.1 A manufacturer, supplier, owner or operator shall not supply, offer for sale, sell, install or allow the installation of an aboveground or underground storage tank, any type of vapor recovery system or any of its components unless the tank, system and components are clearly identified with a permanent identification affixed by the certified manufacturer or rebuilder and one of the following:

- a. The equipment is supplied by the manufacturer as a CARB-certified component; or
- b. The equipment is rebuilt by a person who is authorized by CARB to rebuild that specific CARB-certified component; or
- c. The equipment is approved by a third party that is recognized by the industry and the Control Officer. Written approval from the Control Officer must be obtained prior to installing any non-CARB-certified component.

301.2 A licensed Vapor Recovery Registered Service Representative (RSR) in the State of Arizona shall install an aboveground or underground storage tank or vapor recovery system components.

301.3 Coaxial Vapor Balance System Prohibition: A coaxial vapor balance system install or reinstall of a coaxial vapor balance system during any changes to the tank when the top of the tank is exposed and the vapor port bung is pre-configured to accept vapor recovery piping is prohibited.

301.4 The owner or operator of a stationary dispensing tank shall verify that vapor recovery equipment (if required by this rule) is properly connected and in use at all times while gasoline is actively being loaded. If the gasoline dispensing facility is unattended or there is only one owner or operator under control of the gasoline dispensing facility on-site, the owner or operator of the cargo tank is responsible for the proper connection and use of the vapor recovery equipment (if required by this rule) while gasoline is being actively loaded.

301.5 An owner or operator shall load, allow the loading, or provide equipment for the loading of gasoline from any cargo tank identified with a current Maricopa County Pressure Test decal into any stationary gasoline storage tank.

302 General Housekeeping Requirements:

302.1 An owner or operator shall not store gasoline or permit the loading of gasoline in any stationary gasoline storage tank located above or below ground by unless all of the following conditions are met:

- a. Minimize gasoline spills;
- b. Clean up spills as expeditiously as practicable;
- c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling equipment, such as oil/water separators;
- e. Properly dispose of any VOC containing material.

303 Gasoline Storage Equipment and Operation Requirements:



303.1 An Underground Storage Tank (UST) must meet all of the following conditions:

- a.** The UST is equipped and maintained according to Section 301.1 of this rule;
- b.** For an existing GDF, maintain a dual-point vapor recovery system OR a coaxial vapor balance system. For new installations or modifications to existing GDF, install and maintain a two point vapor recovery system with separate fill and vapor connection points;
- c.** A pressure vacuum vent is installed and maintained per manufacturer specifications;
- d.** The vapor recovery system is maintained and operated according to the manufacturer's specifications and the applicable CARB Executive Orders including the corresponding CARB approved Installation, Operation and Maintenance Manual;
- e.** A permanent submerged fill pipe is installed and maintained to ensure the highest point of the discharge opening is no more than six inches (6") from the bottom of the UST;
- f.** Each fill tube is equipped with gasketed vapor tight cap;
- g.** Each popped dry break is equipped with vapor tight seal and gasketed vapor tight cap;
- h.** Each gasketed vapor tight cap is maintained in a closed position except when the fill tube or popped dry break it serves is actively in use;
- i.** The fill tube assembly, including fill tube, fittings and gaskets, is maintained to prevent vapor leakage from any portion of the vapor recovery system;
- j.** A spill containment receptacle is installed and maintained free of standing liquid, debris and other foreign matter. The spill containment receptacle shall be equipped with an integral drain valve or other CARB-certified equipment, to return spilled gasoline to the underground stationary storage tank. The drain valve shall be maintained closed and free of vapor emissions at all times except when the valve is actively in use; **and**
- k.** Each CARB-certified coaxial vapor balance system fill tube is spring-loaded and operated so that the vapor passage from the stationary storage tank back to the cargo tank is not obstructed.

303.2 An Above Ground Storage Tank (AST) must meet all of the following conditions:

- a.** A permanent submerged fill pipe is installed and maintained to ensure the highest point of the discharge opening is no more than six inches (6") from the bottom of the AST. If the AST is side filled, the fill pipe discharge opening is no more than 18 inches above the tank bottom;
- b.** A pressure vacuum vent is installed and maintained per manufacturer specifications;
- c.** Each fill tube is equipped with a gasketed vapor tight cap;
- d.** Each popped dry break is equipped with a vapor tight seal and is covered with a gasketed vapor tight cap;
- e.** All threads, gaskets, and mating surfaces of the drop tube assembly shall prevent liquid or vapor leakage at the joints of the assembly;
- f.** Each gasketed vapor tight cap is maintained in a closed position except when the drop tube or dry break it serves is actively in use;
- g.** If an AST is equipped with a spill containment receptacle, it shall be maintained to be free of standing liquid, debris and other foreign matter;
- h.** A spill containment receptacle is installed at each fill pipe;
- i.** Each spill containment receptacle equipped with an integral drain valve or other approved equipment that returns spilled gasoline to the aboveground storage tank shall be maintained closed vapor tight except when the valve is actively in use;



- j. Any overfill prevention equipment shall be approved, installed and maintained vapor tight to the atmosphere. Any device mounted within the fill tube shall be so designed and maintained that no vapor from the vapor space above the gasoline within the tank can penetrate into the fill pipe or through any of the fill pipe assembly into the atmosphere; and
- k. All CARB-certified coaxial vapor balance system fill tubes are spring-loaded and operated so that the vapor passage from the stationary storage tank back to the cargo tank is not obstructed;

304 LOADING OF GASOLINE: Prior to accepting a load of gasoline, an owner or operator of a gasoline dispensing facility shall verify the all of the following unless exempted in Section 103.5 of this rule:

- a. The gasoline cargo tank clearly displays a valid Maricopa County Air Quality Department decal that is permanently mounted near the front on the right (passenger) side of the vessel.
- b. The owner or operator of the gasoline cargo tank connects the vapor return hose.

305 CONTROL OF VOC VAPORS:

305.1 Gasoline vapors displaced from a stationary dispensing tank by gasoline being delivered shall be handled by a Stage 1 Vapor Recovery System, unless the tank is exempted by Section 103.4 of this rule.

305.2 Stage 1 Vapor-Recovery System Configuration:

- a. Replacement: After June 16, 1999, no part of a vapor recovery system for which there is a CARB specification shall be replaced with anything but CARB-certified components.
- b. Vapor Valves:
 - (1) All vapor return lines from a stationary dispensing tank shall be equipped with CARB-certified, spring-loaded, vapor-tight, poppetted dry break valves.
 - (2) Vapor valves shall be inspected weekly to determine if closure is complete and gaskets are intact; a record shall be made pursuant to Section 502 of this rule.
- c. Above Ground Systems: After June 16, 1999, an above ground dispensing tank shall have CARB-certified fittings wherever CARB so specifies.
- d. New Systems: Each new gasoline tank installation shall use CARB-certified fittings exclusively wherever CARB so specifies, and:
 - (1) Shall have its own separate, functioning 2-point vapor return line;
 - (2) Is allowed to have a combination vapor recovery system that in addition to having a separate 2-point Stage 1 vapor return line, also has stage 1 vapor piping/fittings linking it to one or more (other) stationary gasoline dispensing tanks.
- e. New Coaxial Prohibited:
 - (1) No coaxial fill pipes shall be installed in new installations; and
 - (2) No coaxial fill pipes shall be reinstalled in major modifications in which the top of the tank is exposed and the vapor port bung is pre-configured to accept vapor recovery piping.

305.3 EQUIPMENT MAINTENANCE AND USE REQUIRED:

- a. All vapor loss control equipment shall be:
 - i. Installed as required;
 - ii. Operated as recommended by the manufacturer; and
 - iii. Maintained leak-free, vapor-tight and in good working order.



- b. Coaxial Systems: Both spring-loaded and fixed coaxial fill tubes shall be**
 - i. Maintained according to the standards of their manufacturer(s); and**
 - ii. Be operated so that there is no obstruction of vapor passage from the tank to the delivery vessel.**

SECTION 400 – ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

401 ~~TANKS THAT LOST THEIR EXEMPTION: Tanks that were formerly exempt from a provision prior to June 16, 1999, shall come into compliance by December 1, 1999.~~

402 **401 BURDEN OF PROOF:**

402.1 **401.1 Proving Exempt Status:** The burden of proof of eligibility for exemption from a provision of this rule is on the ~~applicant-owner or operator.~~ Persons An owner or operator seeking such an exemption shall maintain adequate records and furnish them to the Control Officer upon request.

402.2 **401.2 Providing Proof of Equipment Compliance:** ~~a-~~ It is the responsibility of the ~~installer of vapor control equipment owner or operator, when so required by the Control Officer,~~ owner or operator, when requested by the Control Officer, to provide proof, when requested by the Control Officer, that a vapor recovery system or its modifications meet the requirements of this Rule 353.

- ~~b. If the owner/operator or the equipment supplier voluntarily provides such proof, the Control Officer has the option to waive the subsection 402.2a requirement that the installer provide this proof.~~

403 **402 CARB DECERTIFICATION:** ~~A person~~An owner or operator shall not install or reinstall a component related to vapor recovery that has been decertified by CARB in “Gasoline Facilities - Phase I & II” publication, referenced in ~~subsection 503.4~~ Section 505 of this rule.

404 **403 OTHER AGENCIES’ REQUIREMENTS:** Compliance with this rule does not relieve or otherwise affect ~~a person’s~~ the owner or operator’s obligation to comply with any other applicable federal, state, or local legal requirement, including, but not limited to, rules promulgated by the Arizona Department of Weights and Measures, local fire department codes, and local zoning ordinances.

SECTION 500 – MONITORING AND RECORDS:

501 COMPLIANCE INSPECTIONS:

501.1 GASOLINE DISPENSING FACILITY: Any ~~dispensing tank~~ gasoline dispensing facility required by this rule to be equipped with ~~vapor loss control devices~~ a VR system may be subject to monitoring for vapor tightness and liquid leak tightness during any working hours. Such a tank may be opened for gauging or inspection when loading operations are not in progress, provided that such tank is part of an open system or is served by a positive-pressure relief valve with a relief setting not exceeding +1/2 lb psig.

501.2 GASOLINE CARGO TANK MONITORING FOR LEAKS: The Control Officer may at any time monitor a delivery vessel, including the vapor collection system, for vapor and liquid leaks to ascertain if it is vapor tight and leak free. Leakage of vapor exceeding 1/5 of the lower explosive limit, or 10,000 ppm as methane, when performed according to [vapor tightness test method], shall be an exceedance of the vapor tight standard.

502 GASOLINE DISPENSING FACILITY RECORDKEEPING: The owner or operator of each gasoline dispensing facility in Maricopa County shall maintain records as follows:

502.1 The total amount of gasoline received each month shall be recorded by the end of the following month.



- 502.2** The owner or operator of a gasoline dispensing facility shall cause weekly records of fill tube, vapor valve and spill containment receptacle inspection to be kept, unless exempted by Section 103.6 of this rule. The findings of such weekly inspections shall be permanently entered in a record or log book by the end of Saturday of the following week.
- 502.3** These records and any reports or supporting information required by this rule or by the Control Officer shall be retained for at least 5 years.
- 502.4** Records of the past 12 months shall be in a readily accessible location and must be made available to the Control Officer ~~without delay~~ within 24 hours upon verbal or written request.
- 503 COMPLIANCE DETERMINATION:** The test methods referenced in Section ~~503~~ 504 of this rule, shall be used in the ways given in the subsections that immediately follow. When more than one test method is permitted for a determination, an exceedance of the limits established in this rule determined by any of the applicable test methods constitutes a violation of this rule. For routine information collection, the Control Officer may accept a manufacturer's data sheet (MSDS), data certified by an officer of the supplying company, or test data for the product of inquiry.
- 503.1** Control efficiency of vapor ~~recovery systems~~ loss control equipment and vapor collection/processing systems shall be determined according to EPA Method 2A and either EPA Method 25A or 25B (~~Section 504 and subsection 504.1~~), or by CARB-approved test methods (~~Section 504 and subsection 504.4~~). EPA Method 2B shall be used for vapor incineration devices.
- 503.2** Vapor pressure of gasoline (~~reference Section 204~~) shall be determined using ~~American Society for Testing and Materials (ASTM) Method D323-94~~ ASTM D323-15a Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method or ASTM Method D4953-93 D4953-15, Standard Test Method for Vapor Pressure of Gasoline and Gasoline-Oxygenate Blends (Dry Method. ASTM Method D323-94 D323-15a shall be used for gasoline either containing no oxygenates or MTBE (methyl tertiary butyl ether) as the sole oxygenate. ~~Method D4953-93~~ ASTM 4953-15 shall be used for oxygenated gasoline.
- 503.3 Vapor Leaks:**
- If a determination of liquid leak tight status is to be made on Stage 1VR system or spill containment equipment at a gasoline dispensing facility or on a delivery vessel at the station, the method in ~~subsection 504.3~~ Section 504.3 of this rule shall be used.
 - ~~Subsection 504.3~~ Section 504.3 of this rule probe distance and movement parameters not with-standing, if it has been established that there are no other interfering vapor escapes, it is an exceedance if a reading by the Control Officer from an established vapor escape above 1/5 LEL (or 10,000 ppm as methane) is sustained for at least 5 seconds, and the probe is either consistently further than 1 inch from the source and/or the probe is consistently being moved faster than 4 cm per second.
 - The Control Officer may count it as a failure to perform weekly inspections pursuant to ~~subsection 301.3~~ Section 303 of this rule if foreign material is found in a spill containment receptacle and there is no record of an inspection's being performed in the preceding 10 days.
- 503.4** The CARB publication, "Gasoline Facilities - Phase I & II", pursuant to sections 41954 through 41962 of the California Health and Safety Code, is adopted by reference, as it exists on June 16, 1999. This publication is available for reference at the Maricopa County Air Quality Department, 1001 N. Central Ave., Phoenix, AZ, 85004. This publication is available for purchase at the (California) Air Resources Board, PO Box 2815, 2020 L Street, Sacramento, CA, 95812-2815; (916) 323-0255 or (916) 322-2886.
- 504 TEST METHODS:** The EPA test methods as they exist in the Code of Federal Regulations (CFR) (~~July 1, 1998 Date of rule adoption~~), as listed below, are adopted by reference. The CARB test methods as they exist in Stationary Source Test Methods, Volume 2, on April 8, 1999, as listed in ~~subsection~~ Section 504.4 of this rule, are adopted by reference. The other test methods listed here are also adopted by reference, each having paired with it a specific date that identifies the particular version/revision of the method that is



adopted by reference. These adoptions by reference include no future editions or amendments. Copies of test methods referenced in this Section 504 are available at the Maricopa County Air Quality Department, 1001 N. Central Ave., Phoenix, AZ, 85004.

504.1 EPA Test Methods:

- a. EPA Methods 2a (“Direct Measurement of Gas Volume Through Pipes and Small Ducts”), and 2b (“Determination of Exhaust-Gas Volume Flow-Rate From Gasoline Vapor Incinerators”). ~~Both of the foregoing methods are in~~ 40 CFR 60, Appendix A.
- b. EPA Method 25 (“Determination of Total Gaseous Nonmethane Organic Emissions as Carbon”) and its submethods (40 CFR 60, Appendix A).
- c. EPA Method 27 (“Determination Of Vapor Tightness Of Gasoline Delivery Tank Using Pressure-Vacuum Test”) in 40 CFR 60, Appendix A.
- d. EPA approval of optical imaging camera use to identify and quantify leaks.

504.2 Gasoline Vapor Pressure:

- a. ~~American Society for Testing and Materials (ASTM) Method D323-94 (1994) ASTM D323-15a~~ “Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method).
- b. ~~American Society for Testing and Materials (ASTM) Method D4953-93 (1993) ASTM D4953-15~~ “Standard Test Method for Vapor Pressure of Gasoline and Gasoline-Oxygenate Blends (Dry Method)

504.3 Leak Detection Test Method:

- a. Calibration: Within four hours prior to monitoring, the CGD or OVA shall be suitably calibrated in a manner and with the gas specified by the manufacturer for 20 percent LEL response, or calibrated with methane for a 10,000 ppm response.
- b. Probe Distance: The probe inlet shall be one inch (2.5 cm) or less from the potential leak source when searching for leaks. The probe inlet shall be one inch (2.5 cm) from the leak source when the highest detector reading is being determined for a discovered leak. When the probe is obstructed from moving within one inch (2.5 cm) of an actual or potential leak source, the closest practicable probe distance greater than 1 inch shall be used.
- c. Probe Movement: The probe shall be moved slowly, not faster than 1.6 inches per second (4 centimeters per second). If there is any meter deflection at a potential or actual leak source, the probe shall be positioned to locate the point of highest meter response.
- d. Probe Position: The probe inlet shall be positioned in the path of the vapor flow from a leak, such that the central axis of the probe-tube inlet shall be positioned coaxially with the path of the most concentrated vapors.
- e. Data Recording: The highest detector reading and location for each incidence of detected leakage shall be recorded, along with the date and time. If no gasoline vapor is detected, that fact shall be entered into the record.

504.4 CARB Certification and Test Procedures for Gasoline Vapor Recovery Systems:

- a. *San Diego County Air Pollution Control District Test Procedure TP-96-1*, March 1996, Third Revision, Air Pollution Control District, 9150 Chesapeake Drive, San Diego, CA 92123-1096.
- b. California Environmental Protection Agency, Air Resources Board Vapor Recovery Test Procedure TP-201.1B, Static Torque of Rotatable Phase 1 Adaptors, October 8, 2003 edition, California Air Resources Board, P.O. Box 2815, 2020 L. Street, Sacramento, California 95812-2815.
- c. ~~CARB Test Procedure TP 201.1 “Determination of Efficiency of Phase I Vapor Recovery Systems of Dispensing Facilities without Assist Processors”~~ California Air Resources Board



Vapor Recovery Test Procedure TP-201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003.

- d.** CARB Test Procedure TP-201.1A - “Determination of Efficiency of Phase I Vapor Recovery Systems of Dispensing Facilities with Assist Processors”.
- e.** California Environmental Protection Agency, Air Resources Board Vapor Recovery Test Procedure TP-201.1E, Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, October 8, 2003 edition, California Air Resources Board, P.O. Box 2815, 2020 L. Street, Sacramento, California 95812-2815.
- f.** California Environmental Protection Agency, Air Resources Board Vapor Recovery Test Procedure TP-201.1C, Leak Rate of Drop Tube/Drain Valve Assembly, October 8, 2003 edition, California Air Resources Board, P.O. Box 2815, 2020 L. Street, Sacramento, California 95812-2815.
- g.** California Environmental Protection Agency, Air Resources Board Vapor Recovery Test Procedure TP-201.1D, Leak Rate of Drop Tube Overfill Protection Devices and Spill Container Drain Valves, October 8, 2003 edition, California Air Resources Board, P.O. Box 2815, 2020 L. Street, Sacramento, California 95812-2815.
- h.** California Air Resources Board Vapor Recovery Test Procedure TP-201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999.
- i.** Bay Area Air Quality Management District Source Test Procedure ST-30—Static Pressure Integrity Test—Underground Storage Tanks, adopted November 30, 1983, and amended December 21, 1994.