

NOTICE OF FINAL RULEMAKING
MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS
RULE 353: GASOLINE IN STATIONARY DISPENSING TANKS

PREAMBLE

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| <u>1.</u> | <u>Rule affected</u> | <u>Rulemaking action</u> |
| | Rule 353: Gasoline in Stationary Dispensing Tanks | Amended |
| <u>2.</u> | <u>Statutory authority for the rulemaking:</u> | |
| | Authorizing statutes: A.R.S. §§ 49-474, 49-479, and 49-480 | |
| | Implementing Statute: A.R.S. § 49-112 | |
| <u>3.</u> | <u>The effective date of the rule:</u> | |
| | Date of adoption: November 2, 2016 | |
| <u>4.</u> | <u>List of public notices addressing this rulemaking:</u> | |
| | Notice of Briefing to Maricopa County Manager: May 2015 | |
| | Notice of Stakeholder Workshops: June 30, 2015, September 14, 2015, and February 22, 2016 | |
| | Notice of Maricopa County Board of Health Meeting: April 25, 2016 | |
| | Notice of Proposed Rulemaking: 22 A.A.R. 1257, May 13, 2016 | |
| <u>5.</u> | <u>Name and address of department personnel with whom persons may communicate regarding the rulemaking:</u> | |
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| <u>6.</u> | <u>Explanation of the rule, including the department's reasons for initiating the rulemaking:</u> | |

Summary: Rule 353 (Gasoline in Stationary Dispensing Tanks) limits the emission of volatile organic compounds (VOCs) from gasoline stored in stationary dispensing tanks and from gasoline delivered into such tanks. Revisions to Rule 353 addressed the requirements of the State Implementation Plan (SIP) for “moderate” nonattainment for the 2008 eight-hour ozone national ambient air quality standard (NAAQS). The Maricopa County Air Quality Department (department) revised Rule 353 to be consistent with current gasoline industry terms and definitions, clarified the storage and loading requirements of an underground storage tank and an above ground storage tank, updated test methods to be consistent with state and federal test methods, and clarified the inspection requirement for gasoline dispensing facilities that receive gasoline less than once per week.

In addition, the amendments corrected typographical or other clerical errors; made minor grammatical changes to improve readability or clarity; modified the format, numbering, order, capitalization, punctuation, or syntax of certain text to increase standardization within and among rules; or made various other minor changes of a purely editorial nature. As these changes do not alter the sense, meaning, or effect of the rules, they are not described in detail here, but can be readily discerned in the “underline/ strikeout” version of the rules contained in Item 17 of this notice.

Background: In the early 1970’s, the United States Environmental Protection Agency (EPA) issued transportation control plans that included requirements to control VOC emissions during the loading of gasoline into a storage tank. In 1978, the EPA followed up by issuing a Control Techniques Guideline (CTG) for the “Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems.” The purpose of this CTG was to “...define leak tight conditions and related test procedures for vapor collection systems and tank trucks while loading and unloading ...” The CTG represented the reasonably available control technology (RACT) that could be applied to existing facilities. The CTG was issued to provide a guideline for areas of nonattainment for the NAAQS.

The Clean Air Act Amendments (CAAA) of 1990 required ozone nonattainment areas to implement RACT to control VOC emissions. This RACT determination for the associated industry was to be incorporated into the SIP. RACT is defined by the EPA as “The lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.” (44 FR53761, September 17, 1979) To assist state and local

agencies in determining RACT, the EPA issues CTGs for specific sources. A CTG describes the “presumptive norm” for RACT and includes a review of current knowledge, technology and costs of a variety of emission control techniques. These guidelines provide state and local environmental agencies a guide in establishing RACT regulations for gasoline dispensing operations. The state or local agency can then use the presumptive norm for RACT or develop more stringent measures to meet the established ozone standards.

On January 10, 2008, the EPA issued the National Emission Standards for Hazardous Air Pollutant (NESHAP) for Source Category: Gasoline Dispensing Facilities (73 FR 1945). The NESHAP set forth national emission limits and identified management practices for the gasoline dispensing facilities. Most importantly, the NESHAP did not exclude any gasoline storage tank from the management practices, no matter what the gasoline storage tank capacity.

Rule 353 Rulemaking Background: Maricopa County drafted the first county-wide air quality rules pertaining to the storage and loading of gasoline in the 1970’s. Rule 33 put into rule requirements for the storage and handling of petroleum products. In the 1980’s, Rule 33 was broken into specific sections to address bulk loading facilities, delivery vessels, and loading into stationary storage tanks. Rule 33.3 (Loading into Stationary Storage Containers) specifically addressed the control of VOC emissions from gasoline service stations (now referred to as gasoline dispensing facilities). Rule 33.3 was submitted for inclusion in the 1982 Arizona State Implementation Plan (SIP). The rule included requirements for loading to include the use of submerged fill and the capture of at least 90% of the gasoline vapors displaced during the loading of gasoline. Gasoline storage tanks that were used “exclusively for the fueling of implements of normal cultural farm practices...” were exempted from the rule. Partial exemptions provided for storage tanks with under 1,000 gallon capacity; non-resale gasoline storage tanks; and tanks installed prior to specific dates. In 1985, Rule 33.3 was again submitted to the EPA for inclusion into the SIP. Per the department evaluation on February 11, 1986, Rule 33.3 was consistent with the requirements in the Clean Air Act and 40 CFR 51.22.

The department again revised Rule 33 in order to submit the rules as part of the NAAQS SIP. On July 13, 1988, the Maricopa County Board of Supervisors adopted revisions to Rule 33.3 to include the

renumbering of Rule 33.3 to Rule 353 (Transfer of Gasoline into Stationary Storage Tanks); and the reformatting of the rule.

In 1992, the department revised Rule 353 to be consistent with the RACT guidance documents issued by the EPA in 1978. These revisions included the incorporation of EPA policy statements that were issued after the promulgation of the RACT guidance documents.

The 1999 revisions by the department clarified the responsibility of owners and operators of gasoline dispensing facilities with respect to vapor recovery equipment. The fill pipe and vapor recovery return provisions were expanded. A dual point vapor recovery system was required to be installed in each new gasoline storage tank or when a major modification occurred. California Air Resources Board (CARB) certified equipment was required for Stage I vapor recovery systems. The installation of poppetted valves was required. Standards were included for spill containment devices. Leak detection test procedures were spelled out in detail. Record retention was expanded to five years. These revisions currently are in place.⁷ A limited scope revision to Rule 353 was drafted in 2013 (19 A.A.R. 3636, November 22, 2013) to delete the definition of non-precursor organic compound. The department relocated the list of EPA recognized “non-precursor organic compounds” (40 CFR 51.100(s)) into Maricopa County Air Pollution Control Regulations, Appendix G (Incorporated Materials) to provide a means to expeditiously update any revisions to the EPA definition of VOC.

Issues Raised and Discussed During this Rulemaking Process:

The department held three Stakeholder Workshops: June 30, 2015, September 14, 2015, and February 22, 2016. Stakeholders included representatives from APS, Caljet, CDM Smith, Cemex, City of Glendale, City of Mesa, City of Phoenix, EnCore Consulting, EnviroSure Solutions, Kiewit, Pinal County, SRP, Washington Elementary School, and the EPA.

The department revised Rule 353 definitions for consistency with current gasoline industry terms and definitions; clarified the storage and loading requirements of an underground storage tank and an above ground storage tank; updated test methods to be consistent with state and federal test methods; and clarified the inspection requirement for gasoline dispensing facilities that receive gasoline less than once per week. Previously (December 20, 2000) the department had issued a technical guidance, #TG00-002, addressing the issue of inspection of gasoline dispensing tanks that receive a load of gasoline once per week. Per the

discussion in the document, “The intended purpose of requiring inspections...is to assure both that the fill and vapor return assemblies are fit to receive gasoline and that the integrity of these assemblies is maintained so as to prevent gasoline evaporation between deliveries.” The guidance concluded that if gasoline was loaded at a frequency of less than once per week, that the inspection and recording of the inspection could be conducted at the time of each gasoline delivery. The department incorporated the inspection frequency for less than weekly gasoline deliveries into Section 401.2(b) of this rule and rescinded #TG00-002.

The department revised the rule title to “Storage and Loading of Gasoline at Gasoline Dispensing Facilities” to clarify the specific site activities that this rule applies to. In addition, the purpose and applicability sections were revised to further add clarification in the rule.

Current rule language and definitions were not consistent between the county rules relating to gasoline nor with the federal language for gasoline dispensing facilities. The department revised rule language and definitions to be consistent with other Maricopa County rules and federal rule language. This provides consistency between regulatory agencies and between rules to provide clear and consistent definitions and terms for Stakeholders. At the workshops, it was discussed as to how many terms used in the federal regulations should or are reasonable to include in local rules. The Stakeholders and department staff recommended that definitions that are applicable to the county should be included but not necessarily all the federal definitions.

During the initial phase of the Rule 353 rulemaking process, the department initially proposed to consolidate Rule 352 (Gasoline Delivery Vessel Testing and Use) and Rule 353. At the workshops, Stakeholders expressed confusion and questioned the reasoning as to why the two rules should be combined. The department initially felt that combining the two rules would clarify the responsibilities of the cargo tank operators especially when loading gasoline into and out of stationary gasoline storage tanks. Further discussions with Stakeholders and department staff indicated the proposed consolidation of the two rules added confusion rather than clarified responsibilities. The department agreed and revised Rule 352 and Rule 353 as separate rules.

Prior to the opening of the rule for revisions, Stakeholders were questioning the specific requirements for an above ground storage tank. Questions centered around the requirement and use of a spill containment

receptacle for the fill pipe on an above ground storage tank. To clarify all the requirements for both the above ground storage tanks and the underground storage tanks, the department drafted separate rule sections for each.

The department revised Section 503.4 to require records to be made available to the Control Officer within 24 hours upon verbal or written request. This provides a specific time frame for the owner or operator of a gasoline dispensing facility to remotely access records stored off-site. This also provides consistency within the department when requesting records. There was no discussion brought up at any of the Stakeholder Workshops on this revision.

The department defined “submerged fill” to be consistent throughout the gasoline rules. The department included a graphic depicting the types of fill piping in the definition. Stakeholders agreed the graphic added value to the definition and recommended including it in the rule.

Description of Proposed Amendments:

Amended the following throughout the rule:

- Deleted the wording “stationary dispensing operation” and replaced with “gasoline dispensing facility”
- Deleted the word “transfer” and replace with “load”
- Deleted the wording “2-Point” and replace with “dual-point”
- Deleted the word “person” and replace with “owner or operator”
- Deleted past compliance dates
- Added or revised specific rule section references
- Added “stationary” to describe the type of storage tank

Amended the following in Section 100:

- Revised Section 101 (Purpose) to include the storage and loading of gasoline at gasoline dispensing facilities
- Revised Section 102 (Applicability) to apply to an owner or operator of a gasoline dispensing facility
- Added Section 103 (Exemptions)

Amended the following in Section 200:

- Added the definition AVIATION GASOLINE (AVGAS)
- Revised the definition CARB-CERTIFIED

- Added the definition COAXIAL VAPOR BALANCE SYSTEM
- Deleted the definition DISPENSING TANK
- Added the definition DUAL-POINT VAPOR BALANCE SYSTEM
- Revised the definition EXCESS GASOLINE DRAINAGE
- Revised the definition GASOLINE
- Deleted the definition GASOLINE DELIVERY VESSEL
- Added the definition GASOLINE CARGO TANK
- Deleted the definition GASOLINE DISPENSING OPERATION
- Added the definition GASOLINE DISPENSING FACILITY
- Deleted the definition INSTALLER
- Added the definition MARICOPA COUNTY (MC) VAPOR TIGHTNESS TEST
- Deleted the definition OFFSET FILL LINE
- Revised the definition POPPETTED DRY BREAK
- Added the definition PURGING
- Deleted the definition SIDE FILL PIPE
- Revised the definition STAGE I VAPOR RECOVERY
- Added the definition STATIONARY GASOLINE DISPENSING TANK
- Added the definition SUBMERGED FILL
- Deleted the definition TOP FILL or VERTICAL FILL PIPE
- Revised the definition VAPOR LOSS CONTROL DEVICE
- Revised the definition VAPOR TIGHT

Ameded the following in Section 300:

- Deleted Section 300 (Standards-Vapor Loss Control Measures Required)
- Deleted Section 301 (Basic Tank Integrity)
- Deleted Section 302 (Fill Pipe Requirements)
- Deleted Section 303 (Vapor Recovery System)
- Deleted Section 304 (Equipment Maintenance and Use Required)
- Deleted Section 305 (Exemptions)

- Added Section 300 (Standards)
- Added Section 301 (Manufacturers, Suppliers and Owner or Operator)
- Added Section 302 (General Housekeeping Requirements)
- Added Section 303 (Gasoline Storage Equipment and Operation Requirements)
- Added Section 303.1 (Underground Storage Tank (UST))
- Added Section 303.2 (Above Ground Storage Tank (AST))
- Added Section 304 (Loading of Gasoline)
- Added Section 305 (Control of VOC Vapors)
- Added Section 305.1 (Gasoline vapors displaced...)
- Added Section 305.2 (Stage 1 Vapor Recovery System Configuration)
- Added Section 305.3 (Equipment Maintenance and Use Required)

Amended the following in Section 400:

- Deleted Section 401 (Tanks that Lost Their Exemption)
- Added Section 401 (Inspections)
- Revised Section 402.1 (Proving Exempt Status)
- Revised Section 402.2 (Providing Proof of Equipment Compliance)
- Revised Section 403 (CARB Decertification)
- Revised Section 404 (Other Agencies Requirements)

Amended the following in Section 500:

- Renumbered Section 501 (Compliance Inspections) to Section 502
- Added Section 501 (Determining Vapor Tight Status)
- Added Section 501.1 (Combustible Gas Detector or Organic Vapor Analyzer - Test Procedure)
- Added Section 501.2 (Method 21-Determination of Volatile Organic Compound Leaks, Alternative Screening Procedure 8.3.3)
- Added Section 501.3 (Optical Gas Imaging)
- Renumbered Section 502 (Recordkeeping) to Section 503 (Gasoline Dispensing Facility Recordkeeping) and Revised
- Renumbered Section 503 to Section 504 and Revised

- Renumbered Section 503.1 to Section 504.1 and Revised
- Renumbered Section 503.2 to Section 504.2 and Revised
- Renumbered Section 503.3 to Section 504.3 and Revised
- Deleted Section 503.4
- Renumbered Section 504 (Test Methods) to Section 505 and Revised
- Renumbered Section 504.1 (EPA Test Methods) to Section 505.1 and Revised
- Renumbered Section 505.2 (Gasoline Vapor Pressure) and Renumbered Section 505.2 (ASTM Standards) and Revised
- Deleted Section 504.3 (Leak Detection Test Method)
- Renumbered Section 504.4 to Section 505.3 (CARB Certification and Test Procedures for Gasoline Vapor Recovery Systems) and Revised
- Added Section 505.5 (Additional Test Methods)

7. Demonstration of compliance with A.R.S. §49-112:

Under A.R.S. § 49-479(C), a county may not adopt a rule or ordinance that is more stringent than the rules adopted by the Director of the Arizona Department of Environmental Quality (ADEQ) for similar sources unless it demonstrates compliance with the applicable requirements of A.R.S. §49-112.

§ 49-112 County regulation; standards

§ 49-112(A)

When authorized by law, a county may adopt a rule, ordinance or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all of the following conditions are met:

1. The rule, ordinance or other regulation is necessary to address a peculiar local condition.
2. There is credible evidence that the rule, ordinance or other regulation is either;
 - (a) Necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible.
 - (b) Required under a federal statute or regulation, or authorized pursuant to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule, ordinance or other regulation is equivalent to federal statutes or regulation.

3. Any fee or tax adopted under the rule, ordinance or other regulation will not exceed the reasonable costs of the county to issue and administer that permit or plan approval program.

§ 49-112(B)

When authorized by law, a county may adopt rules, ordinances or other regulations in lieu of a state program that are as stringent as a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if the county demonstrates that the cost of obtaining permits or other approvals from the county will approximately equal or be less than the fee or cost of obtaining similar permits or approvals under this title or any rule adopted pursuant to this title. If the state has not adopted a fee or tax for similar permits or approvals, the county may adopt a fee when authorized by law in the rule, ordinance or other regulation that does not exceed the reasonable costs of the county to issue and administer that permit or plan approval program.

The department complies with A.R.S. § 49-112(A) in that Maricopa County fails to meet the National Ambient Air Quality Standards for both ozone and particulates. The County failed to meet 2008 8-hour ozone standard by the marginal area attainment date of July 20, 2015. The EPA issued a final rule, effective June 3, 2016, reclassifying the Maricopa County area to “moderate” (published at 86 FR 26697, May 4, 2016). Further, a portion of the County was classified as a serious ozone nonattainment area under the previous 1-hour ozone standard requiring the County to continue to maintain the measures and requirements that allowed the County to attain that standard. Currently, a portion of Maricopa County and Apache Junction in Pinal County is designated serious nonattainment for the PM₁₀ 24-hour standard. This is the only serious PM₁₀ nonattainment area in Arizona. Revisions to Rule 353 addressed the requirements of the State Implementation Plan (SIP) for “moderate” nonattainment for the 2008 eight-hour ozone national ambient air quality standard (NAAQS). The amendments in Rule 353 include Reasonably Available Control Technology (RACT).

The department complies with A.R.S. § 49-112(B) in that the amendments to Rule 353 are not more stringent than or in addition to a provision of Title 49 or rule adopted by the director or any board or commission authorized to adopt rules pursuant to Title 49, address the peculiar local conditions in Maricopa County, are authorized under A.R.S. Title 49, Chapter 3, Article 3, and are not in lieu of a state program.

8. Documents or studies referenced and/or reviewed for this rulemaking:

Not applicable

9. Showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision:

Not applicable

10. Summary of the economic, small business, and consumer impact:

The following discussion addresses each of the elements required for an economic, small business and consumer impact statement under A.R.S. § 41-1055.

An identification of the rulemaking.

This rulemaking revised Rule 353 (Gasoline in Stationary Dispensing Tanks). The revised rule is titled: Storage and Loading of Gasoline at Gasoline Dispensing Facilities.

An identification of the persons who will be directly affected by, bear the costs of or directly benefit from the rulemaking.

The persons who will be directly affected by and bear the costs of this rulemaking to revised Rule 353 will be facilities in Maricopa County that own or operate a gasoline dispensing facility, including those located at airports. The department has issued a Title V or a Non-Title V permit to 165 facilities subject to Rule 353. The economic summary is based on the number of Title V and Non-Title V permits issued by the Maricopa County Air Quality Department.

A cost benefit analysis of the following:

(a) The probable costs and benefits to the implementing agency and other agencies directly affected by the implementation and enforcement of the rulemaking.

Because this rulemaking did not impose any new compliance burdens on permitted regulated entities or introduce additional regulatory requirements, the department deemed that none of the revisions have potentially significant economic impacts on permitted sources. It is expected that the department will benefit from the increased clarity of the rule with decreased time to inspect a facility or prepare a permit. In addition, the rulemaking did not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated.

The benefits of the rule revision are anticipated to be a result of the following changes:

- Clarification of the storage and loading requirements of an underground storage tank and an above ground storage tank;
- Updated test methods to be consistent with state and federal test methods;
- Clarification of the inspection requirement for gasoline dispensing facilities that receive gasoline less than once per week;
- Correction of typographical or other clerical errors and made minor grammatical changes to improve readability or clarity;
- Modification of the format, numbering, order, capitalization, punctuation, or syntax of certain text to increase standardization within and among rules.

The sources subject to revised Rule 353 already have permits in which these requirements are addressed. Therefore, this revised rule does not impose new requirements on the permitted facilities, and no costs would be incurred for compliance with the rule revisions.

(b) The probable costs and benefits to a political subdivision of this state directly affected by the implementation and enforcement of the rulemaking

The rule revisions do not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated.

(c) The probable costs and benefits to businesses directly affected by the rulemaking, including any anticipated effect on the revenues or payroll expenditures of employers who are subject to the rulemaking.

The department anticipates that increased clarity provided by the Rule 353 revisions will provide a benefit to the regulated community; it will take less time for sources subject to the rule to understand and comply with the rule, which leads to increased compliance, which leads to decreased costs of compliance to the regulated community. The department does not anticipate these rule revisions to have a significant impact on a person's income, revenue, or employment in this state related to this activity. The rule revision did not impose increased monetary or regulatory costs on individuals so regulated.

A general description of the probable impact on private and public employment in businesses, agencies and political subdivisions of this state directly affected by the rulemaking.

The rule revisions did not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated.

A statement of the probable impact of the rulemaking on small businesses.

The rule revisions did not impose increased monetary or regulatory costs on any permitted business, persons, or individuals so regulated.

(a) An identification of the small businesses subject to the rulemaking.

Small businesses subject to this rulemaking are those facilities in Maricopa County that own or operate a gasoline dispensing facility.

(b) The administrative and other costs required for compliance with the rulemaking.

This rulemaking updated and clarified existing rule provisions and definitions to be consistent with federal performance standards; and to reduce confusion and improve understanding and readability.

The department considered the implications of the proposed amendments to the regulated entities and the implementing agency and deemed that none of the rule revisions had potentially significant economic impacts.

(c) A description of the methods that the agency may use to reduce the impact on small businesses.

(i) Establishing less costly compliance requirements in the rulemaking for small businesses.

By correcting and clarifying existing rule provisions and definitions, this rulemaking lessens or eases the regulatory burden for small businesses.

(ii) Establishing less costly schedules or less stringent deadlines for compliance in the rulemaking.

This rulemaking corrected or clarified existing rule provisions and definitions to reduce confusion and improve understanding and readability.

(iii) Exempting small businesses from any or all requirements of the rulemaking.

This rulemaking corrected or clarified existing rule provisions and definitions to reduce confusion and improve understanding and readability.

(d) The probable cost and benefit to private persons and consumers who are directly affected by the rulemaking.

This rulemaking did not impose any new compliance burdens on regulated entities that are permitted or introduce additional regulatory requirements and will not impose increased monetary or regulatory costs on any permitted business, persons, or individuals so regulated. As such, there are no costs to pass through to consumers which means there are no impacts on consumers.

A statement of the probable effect on state revenues.

The rule revisions did not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated. Without costs to pass through to customers, there is no projected change in consumer purchase patterns and, thus, no impact on state revenues from sales taxes.

A description of any less intrusive or less costly alternative methods of achieving the purpose of the rulemaking.

This rulemaking corrected or clarified existing rule provisions and definitions to reduce confusion and improve understanding and readability.

11. Name and address of department personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact:

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12. Description of the changes between the proposed rule, including supplemental notices and final rule:

Since the Notice of Proposed Rulemaking was published on May 13, 2016 (22 A.A.R 1257), the department is made the following additional amendments:

- Throughout the rule, included both English and metric units of measure for consistency.
- Section 101 (Purpose): Made the purpose statement more succinct by deleting “from gasoline”.

- Section 102 (Applicability): Retained original text regarding Rule 353 applying to stationary gasoline dispensing tanks with a capacity of more than 250 gallons.
- Section 103.5: Revised the wording from "...shall remain subject to such provisions even if annual emissions" to "...shall remain subject to such provisions even if the annual amount of gasoline received..." The 120,000 gallon threshold is a quantity of gasoline delivered and not an emission threshold.
- Section 202: The original definition of a DISPENSING TANK was added and struck out because the definition was deleted. In Section 215, added the definition of STATIONARY GASOLINE DISPENSING TANK, now shown as new language and underlined. The Notice of Proposed Rulemaking indicated that Section 202 was "moved" to Section 215. Since the strikeout of Section 202 occurred later in Section 200, it appeared that numbering was out of sequence. To avoid any confusion as to what happened to the original Section 202 DISPENSING TANK definition, Section 202 DISPENSING TANK definition was re-inserted in sequential order and struck out as deleted. Section 215 was added to indicate a new definition and now is underlined. There were no revisions between the definition found in the Notice of Proposed Rulemaking and the definition in this document.
- Section 213 (Renumbered to 214): Deleted the term "delivery vessel" and inserted the term "gasoline cargo tank" to be consistent throughout rule.
- Section 216.3: Deleted, in definition of "Submerged Fill", text regarding API Standard 650 Compliant, because such provision is applicable to organic liquids not gasoline.
- Section 208: Added the acronym (GDF) to the definition of a GASOLINE DISPENSING FACILITY since the acronym is used in Section 300.
- Section 215: Added the word "GASOLINE" to the definition of a STATIONARY GASOLINE DISPENSING TANK for consistency throughout rule.
- Section 216: Deleted the word "tanks" from "Top-Fill or Bottom-Fill" definition.
- Section 303.1: Revised the wording to clarify the size of gasoline storage tank the section applies to. The revised wording of Section 303.1: "Underground Storage Tank (UST): An UST with a capacity more than 250 gallons (946 l) must meet all of the following conditions ..." The revision will maintain consistency throughout the rule with the applicable standards. This also maintains the previous Rule

353 gasoline storage tank capacity; therefore, there is no rule relaxation or additional requirement with this revision.

- Section 404 (Other Agencies' Requirements): Struck out the wording "Arizona Department of Weights and Measures." The Arizona Department of Weights and Measures name was changed to "Arizona Department of Agriculture, Weights and Measures Services Division" on July 1, 2016.
- Section 501: The title was revised from MONITORING FOR LEAKS to DETERMINING VAPOR TIGHT STATUS to clarify the intent of the section is not to monitor for vapor leaks but to provide a means of determining if a vapor leak is occurring. The owner or operator or the Control Officer is the person or persons that determine the vapor tight status.
- Section 501.1: Added the acronyms for combustible gas detector (CGD) and organic vapor analyzer (OVA)
- Section 503.4: Retained original text regarding records having to be made available without delay instead of having to be made available within 24 hours.
- Sections 504 and 505: Included text in Sections 504 and 505 that allows for the use of alternative test methods to determine compliance with the rule and that allows test methods as approved by the Administrator to be used and clarified the provision regarding when more than one test method is permitted for a compliance determination.
- Section 505.4(a): The text in this section was not shown as new text (underlined); this has been corrected.

13. Summary of the comments made regarding the rule and the department response to them:

Since the Notice of Proposed Rulemaking was published on May 13, 2016 (22 A.A.R. 1257), the department received comments from the Arizona Public Service Company (APS) and the U.S. Environmental Protection Agency (EPA). The comments and the department's responses are provided below.

Comment #1: Section 103.4 (Exemptions-Stationary Gasoline Dispensing Tanks for Farm Operations)

The EPA commented that the exemption for stationary gasoline dispensing tanks for farm operations should be removed from the rule.

Response #1: Section 103.4 (Exemptions-Stationary Gasoline Dispensing Tanks for Farm Operations)

For stationary gasoline dispensing tanks for farm operations, the department is retaining the exemption. Based upon information provided by the Arizona Farm Bureau, annual gasoline throughput has been estimated to be approximately 180,000 gallons per year (i.e., 150 250-gallon tanks with 100 gallons per month throughput). A loading loss emission factor of 0.909 lbs VOC/1000 gallons was calculated using the equation provided in Section 5.2.2.1.1 of AP-42. In addition, a breathing and emptying emission factor of 1.0 lbs VOC/1000 gallons was obtained from Table 5.2-7 of AP-42. Combining these two emission factors with the annual gasoline throughput of the agricultural tanks results in annual VOC emissions of 344 lbs/year (or 0.172 tons/year). These data are included in a spreadsheet dated July 3, 2016 named "AST fuel estimates.xlsx". The spreadsheet also includes emissions for displacement and spillage; these are Stage II emission sources which are not covered under Rule 353. Also, the 2014 National Emissions Inventory (NEI) emissions used for comparison only included Stage I emission sources. Therefore, the displacement and spillage emissions were excluded from this analysis. For comparison purposes, the Maricopa County gasoline station VOC emissions (i.e., total Stage I and tank breathing and emptying) are 1,781.6 tons in the 2014 National Emissions Inventory (NEI). Thus, the VOC emissions from the agricultural gasoline tanks are less than 0.01 percent of the VOC emissions from gasoline stations. Compared to the gasoline station (and overall inventory) VOC emissions, VOC emissions from the agricultural gasoline tanks are negligible. The VOC emissions from the agricultural gasoline tanks are 0.0005% of the annual VOC emissions for all area sources in Maricopa County per the draft 2014 Periodic Emissions Inventory for Ozone Precursors.

Comment #2: Section 501(Determining Vapor Tight Status)

APS commented that it is unclear whether monitoring requirements found in Section 501 are required to be completed by the owner/operator and if so, how frequently.

Response #2: Section 501 (Determining Vapor Tight Status)

Sections 303.1 and Section 303.2 (Standards-Gasoline Storage Equipment and Operation Requirements) both include provisions for the storage tanks to be maintained to prevent vapors from escaping into the atmosphere. Section 401 (Administrative Requirements-Inspections) addresses the inspections and frequency of such inspections. Section 503 (Gasoline Dispensing Facility Recordkeeping) addresses the recordkeeping requirements for the inspection records. The purpose of Section 501 in Rule 353 is to provide easy methods for owners, operators and the Control Officer to quickly identify if a component is

leaking vapors into the atmosphere. A component may be leaking vapors into the atmosphere but still be considered “vapor tight” per the definition in Section 200 of the rule. For a component to be vapor tight, by definition, the component cannot “leak” 10,000 ppmv or more than 1/5 the lower explosive level of vapor. Basically, a component may have a vapor leak and still be considered vapor tight. Providing additional methods for the identification of any type of vapor leak (the optical gas imaging and the soapy solution spray) allows for the quick identification and location of a vapor leak without the expense and time it takes to calibrate and check for leaks using a combustible gas detector (CGD) or organic vapor analyzer (OVA). If the optical gas imaging or soapy water methods do not identify any potential “vapor leaks” there is no need to check for leaks using an CGD or OVA, but the option is still available. To determine the “vapor tight” status of a component, a CGD, OVA, or a calibrated optical gas imaging device operated by a certified operator can be used to identify how much vapor is escaping, answering the question if the component is vapor tight. The title of Section 501 “Monitoring for Leaks” is somewhat misleading and implies that one is required to check for leaks using at least one of the three vapor leak detection procedures listed in the rule, thus APS’s question/comment. To clarify the intent Section 501 to apply to the determination of a vapor tight status, the department added an introductory statement in Section 501 to read: “If a determination of vapor tight status is to be made on a VR System or spill containment equipment at a stationary gasoline dispensing facility or on a gasoline cargo tank, an owner or operator or Control Officer shall use one or more of the methods listed in Section 501 of this rule”. Changing the wording from “Monitoring for Leaks” to “Determining Vapor Tight Status” clarifies the intent of the section. The department deems the phrase “If a determination of vapor tight status is to be made...” to set the parameters as to when a vapor tight status is to be determined. Through the required periodic inspections and recordkeeping requirements specified in Sections 401 and 503, the owner or operator will be able to identify any leaks, both liquid and vapor, in a timely manner to prevent gasoline vapors from escaping. If there is a question as to how much a component is leaking, at that time a determination of the vapor tight status should be made. If the component is leaking vapors that are above the limits identified in the definition of “Vapor Tight” then the component is not vapor tight. If a component is leaking vapors but is under the limits specified in the definition, then the component does have a vapor leak but is considered vapor tight.

14. Any other matters prescribed by the statute that are applicable to the specific department or to any specific rule or class of rules:

Not applicable

15. Incorporations by reference and their location in the rule:

The following EPA Test Methods are incorporated by reference in Rule 353, Section 504:

- 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“).-40 CFR 60, Appendix A
- EPA Method 25 (“Determination of Total Gaseous Nonmethane Organic Emissions as Carbon”) and its submethods (40 CFR 60, Appendix A)
- EPA Method 27 (“Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test”) in 40 CFR 60, Appendix A
- Alternative Work Practice for Monitoring Equipment Leaks, 40 CFR 60.18(g). An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, Appendix A-7, Method 21 to monitor for equipment volatile organic compound leaks
- ASTM D323-15a “Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method)
- ASTM D4953-15 “Standard Test Method for Vapor Pressure of Gasoline and Gasoline-Oxygenate Blends (Dry Method)
- 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
- California Environmental Protection Agency, Air Resources Board Vapor Recovery Test Procedure TP-201.1B, Static Torque of Rotatable Phase 1 Adaptors
- 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
- CARB Test Procedure TP-201.1A - “Determination of Efficiency of Phase I Vapor Recovery Systems of Dispensing Facilities with Assist Processors”

- California Environmental Protection Agency, Air Resources Board Vapor Recovery Test Procedure TP-201.1E, Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves
- California Environmental Protection Agency, Air Resources Board Vapor Recovery Test Procedure TP-201.1C, Leak Rate of Drop Tube/Drain Valve Assembly
- 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
- 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
- Bay Area Air Quality Management District Source Test Procedure ST-30—Static Pressure Integrity Test—Underground Storage Tanks

16. Was this rule previously an emergency rule?

No

17. Full text of the rule follows:

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

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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 11/02/2016

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 (VOCs) 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 (GDF) at which gasoline is stored in and loaded into stationary gasoline dispensing tanks with a capacity of more than 250 gallons (946 l), including those located at airports.
- 103 EXEMPTIONS:**
- 103.1** This rule does not apply to the storage and loading of the following fuels:
- a.** Diesel.
 - b.** Liquefied petroleum gas (LPG).
- 103.2 Aviation Gasoline Loaded at Airports:** The loading of aviation gasoline into stationary storage tanks at airports, and the subsequent loading of aviation gasoline within the airport, is exempt from Section 304 and Section 305.1 of this rule. The storage of aviation gas at airports is subject to this rule.
- 103.3 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.
- 103.4 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.
- 103.5 Stage 1 Vapor Recovery System (VR System):** The VR System provisions of Section 305 of this rule shall not apply to the following stationary gasoline dispensing tanks:

- a. Non-Resale Gasoline Dispensing Facilities: Any stationary GDF receiving less than 120,000 gallons (454,250 l) of gasoline in any twelve (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. A facility shall become subject to the provisions of Section 305 of this rule by exceeding the 120,000 gallon (454,250 l) threshold and shall remain subject to such provisions even if annual amount of gasoline received later falls below this threshold.
- b. Stationary Gasoline Dispensing Tanks of 1000 Gallons (3785 l) 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 is exempt from Section 305 of this rule. 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 six (6) inches (15.24 cm) of the tank bottom.

103.6 Loading of Gasoline: The owner or operator of a stationary GDF that is unattended or when there is only one owner or operator under control of the stationary GDF present, the owner or operator of the stationary GDF is exempt from Section 304 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 AVIATION GASOLINE (AVGAS): A type of gasoline used to fuel a piston engine aircraft.

~~201~~ **202 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.~~

- 203** **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.
- ~~202~~ ~~DISPENSING TANK:~~ Any stationary tank which dispenses gasoline into a motorized vehicle's fuel tank that directly fuels its engine(s). This includes aircraft.
- 204** **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~~ **205** **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~~ pipe's spill containment receptacle.
- ~~204~~ **206** **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.
- 207** **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).
- 208** **GASOLINE DISPENSING FACILITY (GDF):** 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 **209** **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 **210** **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.

211 **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 **212** **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 gasoline dispensing tank before the vapor ~~return~~ recovery line is connected.

213 **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 **214** **STAGE 1 VAPOR RECOVERY SYSTEM (VR SYSTEM):** At a ~~gasoline dispensing facility~~ stationary GDF, the use of installed vapor recovery equipment designed to reduce by at least ~~90%~~ 95% the VOC vapor that would otherwise be displaced into the atmosphere from a stationary gasoline dispensing tank when gasoline is delivered into the tank by a ~~delivery vessel~~ gasoline cargo tank. This reduction may be

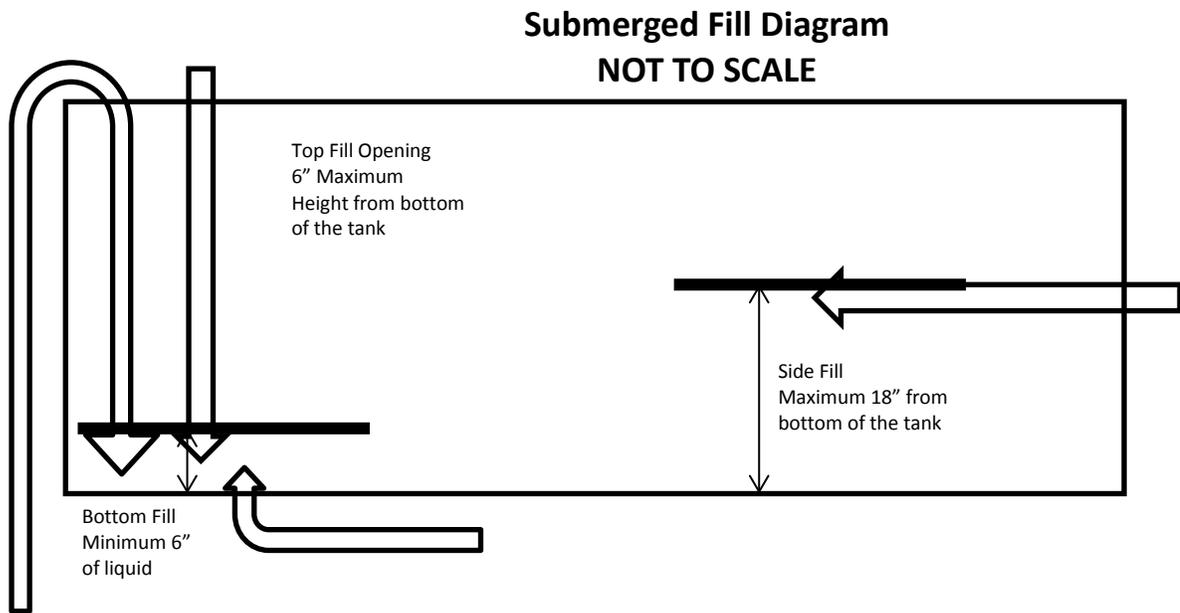
done either by capturing the displaced vapors within the ~~delivery vessel~~ gasoline cargo tank, and or by processing the vapors on site with an emission processing device. ~~(such as a VOC oxidizer).~~

215 **STATIONARY GASOLINE 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).

216 **SUBMERGED FILL:** Any discharge pipe or nozzle which meets the applicable specification as follows:

216.1 **Top-Fill or Bottom-Fill:** The end of the discharge pipe or nozzle is totally submerged when the liquid level is six (6) inches (15 cm) from the bottom of the tank.

216.2 **Side-Fill:** At its highest point within the stationary gasoline dispensing tank less 2,000,000 gallon capacity, the end of the discharge pipe or nozzle is totally submerged when the liquid level is eighteen (18) inches (46 cm) from the bottom of the tank.



214 **217** **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 **218** **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.~~ facility.

217 **219**

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 lower explosive limit (LEL) when calibrated with a gas specified by the manufacturer and 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:~~

- a. ~~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.~~
- b. ~~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:~~

- a. ~~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.~~
- c. ~~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 OWNER OR OPERATOR:

301.1 A manufacturer, supplier, owner or operator shall not supply, offer for sale, sell, install or allow the installation of an above ground or underground storage tank, any type of VR System or any of its components unless the tank, system and components meet the following:

a. Replacement Components for A VR System: After June 16, 1999, a VR System for which there is a CARB specification shall be replaced with components that comply with one of the following:

(1) The equipment is supplied by the manufacturer as a CARB-certified component; or

(2) The equipment is rebuilt by a person who is authorized by CARB to rebuild that specific CARB-certified component; or

b. All vapor recovery lines from stationary gasoline dispensing tanks shall be equipped with CARB-certified, spring-loaded, vapor tight, poppetted dry breaks.

c. After November 2, 2016, each new or rebuilt installed component shall be clearly identified with a permanent identification affixed by the certified manufacturer or rebuilder.

301.2 Only a State of Arizona licensed Vapor Recovery Registered Service Representative (RSR) shall install an above ground or underground storage tank or vapor recovery system components.

301.3 An owner or operator shall not:

a. Install a coaxial fill pipe in a new installation (after June 16, 1999); or

b. Reinstall a coaxial fill pipe during any changes to the stationary gasoline dispensing tank when the top of the tank is exposed and the vapor port bung is pre-configured to accept vapor recovery piping.

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

301.5 An owner or operator shall only load, allow the loading, or provide equipment for the loading of gasoline from only a gasoline cargo tank identified with a valid Maricopa County (MC) Vapor Tightness Test decal into any stationary gasoline storage tank.

302 **GENERAL HOUSEKEEPING REQUIREMENTS:** An owner or operator shall not store gasoline or permit the loading of gasoline in any stationary gasoline dispensing tank located above or below ground unless all of the following conditions are met:

302.1 Minimize gasoline spills;

302.2 Clean up spills as expeditiously as practicable;

302.3 Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

302.4 Minimize gasoline sent to waste collection systems that collect and transport gasoline to reclamation and recycling equipment, such as oil/water separators;

302.5 Properly dispose of any VOC containing material.

303 **GASOLINE STORAGE EQUIPMENT AND OPERATION REQUIREMENTS:**

303.1 **Underground Storage Tank (UST):** By December 2, 2016, an UST with a capacity more than 250 gallons (946 l) must meet all of the following conditions unless exempt from the VR System requirements per Section 103.5 of this rule:

a. The UST is equipped and maintained according to Section 301 of this rule;

b. For an existing stationary GDF, maintain a dual-point VR System or a coaxial vapor balance system. For new installations (after June 16, 1999) or modifications to an existing stationary GDF (after June 16, 1999), install and maintain a dual-point vapor balance system with separate fill and vapor connection points;

c. A pressure-vacuum vent is installed and maintained per manufacturer's specifications;

d. The VR 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 pipe is equipped with gasketed vapor tight cap;
- g. After December 2, 2016 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 pipe or popped dry break it serves is actively in use;
- i. The fill pipe assembly, including fill pipe, fittings and gaskets, is maintained to prevent vapor leakage from any portion of the VR System; and
- 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 UST. The drain valve shall be maintained closed and free of vapor emissions at all times except when the valve is actively in use.

303.2 Above Ground Storage Tank (AST): By November 2, 2016, an AST with a capacity more than 250 gallons (946 l) 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 (18") above the tank bottom;
- b. A pressure-vacuum vent is installed and maintained per manufacturer's specifications;
- c. Each fill pipe is equipped with a gasketed vapor tight cap;
- d. All threads, gaskets, and mating surfaces of the fill pipe assembly shall prevent liquid or vapor leakage at the joints of the assembly;
- e. Each gasketed vapor tight cap is maintained in a closed position except when actively in use;
- f. Prior to November 2, 2016, 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. On or after December 2, 2016, a newly installed AST shall be equipped with a spill containment receptacle that is maintained to be free of standing liquid, debris and other foreign matter;
- g. A spill containment receptacle is installed at each fill pipe; and

- h. Any overfill prevention equipment shall be approved, installed and maintained 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.

304 **LOADING OF GASOLINE:** Prior to accepting a load of gasoline, an owner or operator of a stationary GDF shall verify all of the following unless exempted in Section 103 of this rule:

304.1 The gasoline cargo tank clearly displays a valid Maricopa County Vapor Tightness Certification decal that is permanently mounted near the front on the right (passenger) side of the vessel.

304.2 The owner or operator of the gasoline cargo tank connects the vapor recovery hose prior to connecting loading hose.

305 **CONTROL OF VOC VAPORS:**

305.1 Gasoline vapors displaced from a stationary gasoline dispensing tank while being loaded shall be handled by a VR System, unless the tank is exempted by Section 103.5 of this rule.

305.2 **VR System Configuration:**

a. Replacement: After June 16, 1999, no part of a VR System for which there is a CARB specification shall be replaced with anything but CARB-certified components.

b. Vapor Valves:

(1) All vapor recovery lines from a stationary gasoline dispensing tank shall be equipped with CARB-certified, spring-loaded, vapor-tight, poppetted dry breaks.

(2) Vapor valves shall be inspected pursuant to Section 401 of this rule to determine if closure is complete and gaskets are intact; a record shall be made pursuant to Section 502 of this rule.

c. AST: After June 16, 1999, an AST shall have CARB-certified fittings wherever CARB so specifies.

d. By December 2, 2016, each AST and UST shall use CARB-certified fittings exclusively wherever CARB so specifies, and:

(1) Shall have its own separate, functioning dual-point vapor return line;

- (2) Is allowed to have a combination vapor recovery system that in addition to having a separate dual-point vapor recovery line, also has vapor piping/fittings linking it to one or more (other) stationary gasoline dispensing tanks.

305.3 Equipment Maintenance and Use Required:

- a. All vapor loss control equipment shall be:
 - (1) Installed as required;
 - (2) Operated as recommended by the manufacturer; and
 - (3) Maintained leak-free, vapor tight and in good working order.
- b. Coaxial Systems: Both spring-loaded and fixed coaxial fill pipes shall be
 - (1) Maintained according to the standards of their manufacturer(s); and
 - (2) Be operated so that there is no obstruction of vapor passage from the stationary gasoline dispensing tank to the gasoline cargo tank.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

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.~~

401 INSPECTIONS: The owner or operator of a GDF shall conduct inspections. A record shall be made pursuant to Section 503 of this rule.

401.1 The inspection shall include, but is not limited to all of the following:

- a. The spill containment receptacle shall be:
 - (1) Free of cracks, rust and defects;
 - (2) Free of foreign material;
 - (3) Empty of liquid, including gasoline;
 - (4) If necessary, installed with a drain valve that properly seals.
- b. The external fittings of the fill pipe assembly shall be:
 - (1) Intact and not loose;
 - (2) Covered with a gasketed cap that fits securely onto the fill pipe.
- c. The poppetted dry break shall be:
 - (1) Equipped with a vapor tight seal;

(2) Covered with a gasketed cap that fits securely onto the popped dry break.

401.2 The inspections shall be conducted:

- a.** At least once per calendar week; or
- b.** If the gasoline dispensing facility receives gasoline loads less than once per calendar week, the inspection shall take place upon completion of the receipt of the load of gasoline.

402 BURDEN OF PROOF:

402.1 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 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, 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 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.~~

404 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,~~ Arizona Department of Agriculture, Weights and Measures Services Division; local fire department codes; and local zoning ordinances.

SECTION 500 – MONITORING AND RECORDS:

501 DETERMINING VAPOR TIGHT STATUS: An owner or operator or Control Officer shall follow the test procedure in Section 501.1 of this rule and shall use one or more of the methods listed in Sections

501.2 or 501.3 of this rule to determine the vapor tight status on a VR System or spill containment equipment at a stationary GDF or on a gasoline cargo tank.

501.1 Combustible Gas Detector (CGD) or Organic Vapor Analyzer (OVA) - Test Procedure: During loading of gasoline into stationary gasoline dispensing tanks, the peripheries of all potential sources of leakage during loading at the GDF are checked with a CGD or OVA as follows:

- a. Calibration:** Within four (4) hours prior to monitoring, the CGD or OVA shall be properly calibrated for a 20 percent LEL response or to 10,000 ppm with methane.
- b. Probe Distance:** The probe inlet shall be one (1) inch (2.5 cm) or less from the potential leak source when searching for leaks. The probe inlet shall be one (1) 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 (1) inch (2.5 cm) of an actual or potential leak source, the closest practicable probe distance 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 an actual or potential 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 an actual or potential leak such that the central axis of the probe-tube inlet shall be positioned coaxially with the path of the most concentrated vapors.
- e. Wind:** Wind shall be blocked as much as possible from the space being monitored. The annual leak detection test required by Section 401 of this rule shall be valid only when wind speed in the space being monitored is five (5) mph or less.
- f. 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.

501.2 Method 21-Determination of Volatile Organic Compound Leaks, Alternative Screening Procedure 8.3.3:

- a.** Spray a soap solution over all potential leak sources. The soap solution may be a commercially available leak detection solution or may be prepared using concentrated

detergent and water. A pressure sprayer or squeeze bottle may be used to dispense the solution.

b. Observe the potential leak sites to determine if any bubbles are formed.

(1) If no bubbles are observed, the source is presumed to have no detectable vapor leaks.

(2) If any bubbles are observed, the instrument techniques of Section 501.1 of this rule shall be used to verify if a vapor leak exists.

501.3 **Optical Gas Imaging:** A certified operator of a calibrated optical gas imaging device may use an optical gas imaging instrument to identify vapor leaks. If a vapor leak is detected, the instrument techniques listed in Section 501.1 of this rule shall be used to verify if a vapor leak exists.

~~501~~ **502** **COMPLIANCE INSPECTIONS:** Any ~~dispensing tank~~ stationary gasoline dispensing tank 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.

~~502~~ **503** **GDF RECORDKEEPING:** The owner or operator of each ~~gasoline dispensing facility~~ stationary GDF in Maricopa County shall maintain records as follows:

~~502.1~~ **503.1** The total amount of gasoline received each month shall be recorded by the end of the following month.

~~502.2~~ **503.2** The owner or operator of a ~~gasoline dispensing facility~~ stationary GDF shall ~~cause weekly records of fill tube, vapor valve and spill containment inspection to be kept. 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.~~ record inspections in a permanent record or log book:

a. By the end of Saturday of the following week; or

b. If the gasoline dispensing facilities receives gasoline loads less than once per calendar week, the owner or operator shall record the inspection within three days after the receipt of the load of gasoline.

~~502.3~~ **503.3** These records and any reports or supporting information required by this rule or by the Control Officer shall be retained for at least ~~5~~ five (5) years.

~~502.4~~ **503.4** Records of the past ~~42~~ twelve (12) months shall be in a readily accessible location and must be made available to the Control Officer without delay upon verbal or written request.

~~503~~ **504** **COMPLIANCE DETERMINATION:** ~~The test methods referenced in Section 503 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~~ **504.1** 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~~ **504.2** 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~~ **504.3** **Vapor Leaks:**

- a. If a determination of ~~leak~~ vapor tight status is to be made on ~~Stage 1 a VR system~~ or spill containment equipment at a ~~gasoline dispensing facility~~ stationary GDF or on a ~~delivery vessel~~ gasoline cargo tank at the station, ~~the method in subsection 504.3~~ at least one of the test method's listed in Section 501 of this rule shall be used.
- b. ~~Subsection 504.3~~ Section 501.1 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~~ five (5) seconds, and the probe is

either consistently further than ~~4~~ one (1) inch from the source and/or the probe is consistently being moved faster than ~~4-cm~~ four centimeters (4 cm) per second.

- c. The Control Officer may count it as a failure to perform weekly inspections pursuant to ~~subsection 301.3~~ Section 305.2 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 ~~40~~ ten (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~~ **505** **TEST METHODS INCORPORATED BY REFERENCE:** ~~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 504.4 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. The following test methods are approved for use for the purpose of determining compliance with this rule. The test methods are adopted by reference in Appendix G of the Maricopa County Air Pollution Control Regulations. Alternative test methods as approved by the Administrator or other EPA-approved test methods may be used upon prior written approval from the Control Officer. When more than one test method is permitted for the same determination, an exceedance under any method will constitute a violation. Copies of test methods referenced in this section are available at the Maricopa County Air Quality Department, 1001 N. Central Avenue, Suite 125, Phoenix, AZ 85004-1942.~~

~~504.1~~ **505.1** **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 21 - Determination of Volatile Organic Compound Leaks.
- c. EPA Method 21-Determination of Volatile Organic Compound Leaks, Alternative Screening Procedure 8.3.3
- b. d. EPA Method 25 (“Determination of Total Gaseous Nonmethane Organic Emissions as Carbon”) and its submethods (40 CFR 60, Appendix A).
- e. EPA Method 27 (“Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test”) in 40 CFR 60, Appendix A.
- f. Optical Gas Imaging: Alternative Work Practice for Monitoring Equipment Leaks, 40 CFR 60.18(g). An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, Appendix A-7, Method 21 to monitor for equipment volatile organic compound leaks.

504.2 **505.2** Gasoline Vapor Pressure: **ASTM Standards:**

- 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.~~

- ~~e. 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.~~

504.4 505.3 CARB Certification and Test Procedures for Gasoline Vapor Recovery Systems:

- ~~a. CARB Test Method CP 201, “Certification Procedure for Vapor Recovery Systems of Dispensing Facilities”.~~
- ~~b. CARB Test Procedure TP-201.1—“Determination of Efficiency of Phase I Vapor Recovery Systems of Dispensing Facilities without Assist Processors”.~~
- ~~e. CARB Test Procedure TP 201.1A—“Determination of Efficiency of Phase I Vapor Recovery Systems of Dispensing Facilities with Assist Processors”.~~
- a. 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.**
- b. 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.**
- c. California Air Resources Board Vapor Recovery Test Procedure TP-201.1A - “Determination of Efficiency of Phase I Vapor Recovery Systems of Dispensing Facilities with Assist Processors”.**

- d.** 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.
- e.** 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.
- f.** 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.
- g.** 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.
- h.** 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.

505.4 Additional Test Methods:

- a.** American Petroleum Institute Standard API STD 650 Welded Tanks for Oil Storage, Twelfth Edition, Includes Errata 1 (2013), Errata 2 (2014), and Addendum 1 (2014).
- b.** San Diego County Air Pollution Control District Test Procedure TP-96-1, March 1996, Third Revision.