

NOTICE OF PROPOSED FINAL RULEMAKING
MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS
RULE 352: GASOLINE DELIVERY VESSEL TESTING AND USE

PREAMBLE

- | <u>1.</u> | <u>Rule affected</u> | <u>Rulemaking action</u> |
|------------------|--|--|
| | Rule 352: Gasoline Delivery Vessel Testing and Use | 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. 1242, May 13, 2016 | |
| <u>5.</u> | <u>Name and address of department personnel with whom persons may communicate regarding the rulemaking:</u> | |
| | Name: | Cheri Dale or Hether Krause |
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| <u>6.</u> | <u>Explanation of the rule, including the department's reasons for initiating the rulemaking:</u> | |

Summary: Rule 352 (Gasoline Delivery Vessel Testing and Use) limits the emission of volatile organic compounds (VOCs) from gasoline delivery vessels and applies to any gasoline delivery vessel used to receive or deliver gasoline within Maricopa County. Rule 352 also applies to all persons who own, operate, maintain, repair or test the delivery vessel.

Maricopa County Air Pollution Control Regulation, Rule 352, was last revised over fifteen years ago. The revisions to Rule 352 updated the rule to use current industry language; updated test methods; and clarified the loading requirements for bulk terminals, bulk plants and gasoline dispensing facilities. In addition, the revisions to Rule 352 addressed the requirements of the State Implementation Plan (SIP) for “moderate” nonattainment for the 2008 eight-hour ozone national ambient air quality standard (NAAQS).

Background: As early as the 1960’s, the Maricopa County Health Department (as the department was then called), Air Pollution Control regulations, Section IV, Handling of Materials, Regulation 1, required “Material such as...gasoline or other volatile compounds...be kept, processed, used, and transported in such a manner and by such means that they will not unreasonably leak, escape, evaporate or be otherwise discharged into the ambient air so as to cause or contribute to air pollution...” This early rulemaking established the basis for the current Rule 350. In 1970, the passage of the Clean Air Act established federal air quality standards.

Congress established the basic structure of the Clean Air Act (CAA) in 1970. The CAA requires the U.S. Environmental Protection Agency (EPA) to establish national ambient air quality standards (NAAQS) for common and widespread pollutants based on the most current science available. For areas that were determined to be in nonattainment of the NAAQS, the state was required to adopt federally enforceable state implementation plans (SIP) in order to achieve and maintain air quality and meet the federally established air quality standards (the NAAQS)². The states were responsible for developing and implementing rules that require reasonably available control technology (RACT) for sources of VOCs located in the designated ozone nonattainment areas. Local air agencies were required to establish RACT for source categories not already covered by EPA's Control Techniques Guidelines (CTGs) as well as tighten RACT for source categories for which RACT had already been defined in the NAAQS³. EPA defined RACT 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 FR 53762; September 17, 1979).

In the 1970’s, using the EPA NAAQS and CTGs to identify the established RACT standards, the Maricopa County Bureau of Air Pollution Control (as the department was then called) revised and renumbered the county air pollution rules and regulations. The revised county rules established specific requirements for petroleum products in Regulation III, Rule 33: Storage and Handling of Petroleum Products.

On March 3, 1978, EPA promulgated a list of ozone nonattainment areas under the provisions of the Clean Air Act, as amended in 1977 (1977 CAA or pre-amended Act). Maricopa County was included on such list 43 FR 8964, March 3, 1978). On February 24, 1984, EPA notified the Governor of Arizona, that the Maricopa County Air Pollution Control District’s (MCAPCD), as the department was then called) portion of the Arizona SIP was inadequate and requested that deficiencies in the existing SIP be corrected (EPA’s SIP-Call, 49 FR 18827, May 3, 1984). The MCAPCD was in the process of revising Rule 33 to create Rules 350, 351, 352, and 353 to address the RACT requirements when EPA again notified the Governor of Arizona (May 26, 1988) that MCAPCD’s portion of the Arizona SIP was inadequate and requested that deficiencies relating to VOC controls and the application of RACT in the existing SIP be corrected (EPA’s second SIP-Call, 53 FR 34500, September 7, 1988).

On November 15, 1990, the Clean Air Act Amendments of 1990 were enacted. In an amended section of the CAA, Congress statutorily adopted the requirement that nonattainment areas fix their deficient RACT rules and established a deadline of May 15, 1991 for states to submit corrections of those deficiencies. The MCAPCD further revised Rules 350, 351, 352, and 353 to meet the RACT standards. Rule 350 (Storage of Organic Liquids at Bulk Plants), revised July 13, 1988, and April 6, 1992, was approved by the EPA effective October 5, 1995 (60 FR 46024). Rule 351 (Loading Organic Liquids) revised July 13, 1988 and November 16, 1992, was approved effective October 5, 1995 (60 FR 46024). Rule 352 (Gasoline Delivery Vessel Testing and Use), revised July 13, 1988, and November 16, 1992, was approved effective October 5, 1995, (60 FR 46024). Rule 353 (Transfer of Gasoline into Stationary Dispensing Tanks) revised July 13, 1988, and April 6, 1992, was approved effective March 4, 1996 (61 FR 3578).

More recently, EPA developed national emission standards for hazardous air pollutants (NESHAPS) for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities (73 FR 1933,

Jan. 10, 2008); a NESHAP for Gasoline-Dispensing Facilities (73 FR 1945, Jan. 10, 2008); and the NESHAP for Organic Liquid Distribution (non-gasoline) (69 FR 5063, Feb. 3, 2004). These NESHAPS are often referred to as the maximum achievable control technology (MACT) standards since they were developed to reflect the maximum achievable degree of HAP emission reduction. New MACT standards required additional or new emissions testing requirements reflecting the new technologies. New and revised test methods and leak detection methods were required in these MACT standards. Although the MACT standards typically apply to large sources, there are test methods and other good practices that are or may be applicable to small area sources of VOC emissions. Both MACT standards included requirements for gasoline cargo tanks, the industry term now used for delivery vessels.

Rule 352 Rulemaking Background: Rule 352 was revised in 1992 and 1999 in order for the county to comply with RACT and other policy statements published by the EPA. In 2013, a limited scope rulemaking clarified the definition of volatile organic compounds within all of the Maricopa County Air Quality rules. In this rulemaking, the Maricopa County Air Quality Department (department) revised rule language to improve the clarity of the gasoline loading requirements and updated the test methods. This rulemaking included revisions to improve the clarity and enforceability of the regulatory requirements for gasoline cargo tanks.

Other revisions included in this rulemaking were the relocation of any exemptions previously found in Section 300 to a new section in Section 100; the inclusion of definitions specific to the gasoline industry and in line with terms defined in the Code of Federal Regulations; the clarification of the regulatory requirements for loading gasoline at bulk terminals, bulk plants and gasoline dispensing facilities; increased the amount of notification time in advance of gasoline cargo tank testing; and the addition of the use of optical gas imaging as an alternative work practice to monitor and identify leaking equipment.

Issues Raised and Discussed During this Rulemaking Process:

Prior to Stakeholder workshops, one Stakeholder submitted a written request to the department concerning the notification time for testing of gasoline cargo tanks. Rule 352 requires the owner or operator or tester of a gasoline cargo tank to notify the Control Officer "...no more than 24 hours in advance of [vapor tightness] testing." The Stakeholder expressed concern that gasoline cargo tanks operating in different regulatory jurisdictions require different notification requirements; this presented a challenge for the

Stakeholder when conducting vapor tightness testing for gasoline cargo tanks that operate outside of Maricopa County. The department acknowledged this “challenge presented by the inconsistency of our [the department] testing notification periods compared to those required by other jurisdictions.” (Department letter to Massey’s Truck and Tank Repair, June 11, 2014) At that time, the department conditionally agreed to allow the notification time of up to 72 hours in advance of the gasoline cargo tank testing. This rule revision now allows up to 72 hours notification time prior to gasoline cargo tank testing.

The department held three Stakeholder workshops: June 30, 2015, September 14, 2016, and February 22, 2016. Stakeholders included representatives from APS, Caljet, CDM Smith, Cemex, City of Glendale, City of Mesa, City of Phoenix, Coastal Transport, EnCore Consulting, Envirosure Solutions, Kiewit, Kinder Morgan, Luke Air Force Base, Pinal County, Ping, Polar Services, SRP, Tamura Environmental, Washington Elementary School, and EPA.

The current definitions of “bulk tank” and “bulk terminal” were confusing. Stakeholders recommended clarification of the terms and their applicability to be consistent throughout the department’s rules that pertain to gasoline. The department acknowledged the inconsistencies between the “gasoline rules” and revised the rules accordingly.

Stakeholders questioned if non-gasoline cargo tanks were subject to the required pressure testing requirements of Rule 352. The rule did not seem clear if there were any exceptions to this pressure test requirement. Rule 352, Section 305.1 does provide an exemption from the pressure testing requirements if a gasoline cargo tank meets all of the conditions listed in the section. The rule retains the same exemptions previously located in Section 305.1 and now located in Section 103 (Partial Exemptions). Additional questions were asked concerning the rule’s applicability to a cargo tank that only loads aviation gasoline. The MACT standards that include requirements for cargo tanks exempt the following: “...transfer of aviation gasoline within the airport, is not subject to this subpart. (40 CFR 63.11081(d) and 40 CFR 63.11111(g)).” Maricopa County included an exemption from Rule 352 for cargo tanks that load only the following fuels: aviation fuel, diesel fuel and liquefied petroleum gas.

Description of Rule 352 Amendments:

Amended the following throughout the rule:

- Changed the term “transfer” to “loading”

- Changed the term “delivery vessel” to “gasoline cargo tank”
- Deleted the word “person” and inset the words “owner or operator”
- Deleted past compliance dates
- Added or revised specific rule section references

Amended the following in Section 100:

- Revised Section 101 (Purpose)
- Revised Section 102 (Applicability)
- Added Section 103 (Exemptions)

Amended the following in Section 200:

- Deleted the definition 2-POINT SYSTEM
- Added the definition AVIATION GASOLINE (AVGAS)
- Added the definition BULK GASOLINE PLANT
- Added the definition BULK GASOLINE TERMINAL
- Added the definition COAXIAL VAPOR BALANCE SYSTEM
- Added the definition DUAL-POINT VAPOR BALANCE SYSTEM
- Revised the definition of EXCESS GASOLINE DRAINAGE
- Revised the definition of GASOLINE
- Deleted the definition GASOLINE DELIVERY VESSEL
- Added the definition GASOLINE CARGO TANK
- Added the definition GASOLINE DISPENSING FACILITY
- Revised the definition of LEAK FREE
- Revised the definition of MARICOPA COUNTY (MC) PRESSURE VAPOR TIGHTNESS TEST
- Revised the definition of PURGING
- Revised the definition of STAGE 1 VAPOR RECOVERY SYSTEM (VR SYSTEM)
- Added the definition SUBMERGED FILL
- Revised the definition of SWITCH LOADING

Amended the following in Section 300:

- Deleted Section 301 PREVENT LEAKS AND SPILLS

- Deleted Section 302 GASOLINE DELIVERY VESSEL LEAK TEST REQUIRED
- Deleted Section 303 DISPLAY A VALID DECAL
- Deleted Section 304 PURGING PROHIBITED
- Deleted Section 305 EXEMPTIONS
- Added Section 301 GASOLINE CARGO TANK REQUIREMENTS
- Added Section 301.1 Gasoline Cargo Tank Integrity
- Added Section 301.2 Maricopa County Air Pollution Vapor Tightness Certification
- Added Section 301.3 Purging
- Added Section 302 LOADING OF GASOLINE
- Added Section 302.1 Loading of Gasoline into a Gasoline Cargo Tank from a Bulk Plant
- Added Section 302.2 Loading of Gasoline at a Bulk Terminal
- Added Section 302.3 Loading of Gasoline into a Stationary Gasoline Storage Tank at a Non-Retail Gasoline Dispensing Facility
- Added Section 302.4 Loading of Gasoline into a Stationary Gasoline Storage Tank at a Retail Gasoline Dispensing Facility

Amended the following in Section 400:

- Revised Section 401 MARICOPA COUNTY AIR POLLUTION VAPOR TIGHTNESS TESTING
- Revised Section 401.1 Notification of Required Testing
- Revised Section 401.2 Registration
- Revised Section 401.3 Expiration
- Revised Section 401.4 Loss, Defaced or Destroyed Maricopa County Vapor Tightness Certification Decal
- Revised Section 402 TIME FRAME FOR INSTALLATION OF CONTROL DEVICE

Amended the following in Section 500:

- Renumbered Section 501 RECORDKEEPING AND REPORTING REQUIREMENTS to Section 502
- Added Section 501 GASOLINE CARGO TANK VAPOR TIGHTNESS TESTING REQUIREMENT
- Renumbered Section 502 MONITORING FOR LEAKS to Section 503
- Added Section 503.1 Combustible Gas Detector or an Organic Vapor Analyzer (OVA)

- Added Section 503.1 Method 21-Determination of Volatile Organic Compound Leaks, Alternative Screening Procedure 8.3.3
- Added Section 503.3 Optical Gas Imaging
- Renumbered Section 503 COMPLIANCE to Section 504
- Renumbered Section 504 TEST METHODS to Section 505
- Added Section 505.1 Optical Gas Imaging
- Added Section 505.2 EPA Method 21
- Renumbered Section 504.1 EPA Method 27 to Section 505.3
- Renumbered Section 504.2 American Society for Testing Materials...to Section 505.4 and revised
- Renumbered Section 504.3 Test of Internal Vapor Valves to Section 505.5
- Renumbered Section 504.4 Delivery Vessel Vapor Tightness Test to Section 505.6

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 complied 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 350 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 352 included Reasonably Available Control Technology (RACT).

The department complies with A.R.S. § 49-112(B) in that the amendments to Rule 352 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. The economic summary is based on the number of Title V and Non-Title V permits issued by the Maricopa County Air Quality Department.

An identification of the rulemaking.

This rulemaking revised Rule 352 (Gasoline Delivery Vessel Testing and Use). Rule 352 was re-titled: Gasoline Cargo Tank Testing and Use.

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 352 will be facilities in Maricopa County that have a gasoline cargo tank which is used to load gasoline, and to all persons who own, operate, maintain, repair, or test such a gasoline cargo tank. Revised Rule 352 does not impose new requirements on facilities that provide or receive testing per Rule 352 and no costs would be incurred for compliance with the rule revisions.

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:

- Added definitions specific to the gasoline industry and in line with terms defined the Code of Federal Regulations;
- Clarified the regulatory requirements for loading gasoline at bulk terminals, bulk plants and gasoline dispensing facilities;
- Increased the amount of notification time in advance of gasoline cargo tank testing;
- Added optical gas imaging as an alternative work practice to monitor and identify leaking equipment.

Revised Rule 352 did not impose new requirements on facilities that provide testing per Rule 352 and no costs will 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 did 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 352 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 will 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 have a gasoline cargo tank which is used to load gasoline, and own, operate, maintain, repair, or test such a gasoline cargo tank.

(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 have 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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E-mail: aqplanning@mail.maricopa.gov

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 1242), the department included the following additional amendments:

- Deleted the term “vessel” or “delivery vessel” and replaced with the words “gasoline cargo tank” to maintain consistency throughout rule. The following sections were revised:
 - Section 103.3
 - Section 208

- Section 211
- Section 301.2.b(2)
- Section 401.2
- Section 501.1(b)
- Section 502
- Section 505.5(a) and (b)
- Section 506.6
- Changed “solely in another state” to “outside of Arizona” in Section 103.2(b)(1)
- Re-structured Section 103.4(a)(1) to delete “when” at the end of the introductory statement, to add “when” to the beginning of Section 103.4(a)(1)(a) and to change Section 103.4(a)(1)(b) from “A gasoline cargo tank has stopped” to “After a gasoline cargo tank has come to a complete stop”
- Deleted the term “tanks” from Section 215.1
- Deleted Section 215.3 (Definition of “Submerged Fill”) text regarding API Standard 650 Compliant, because such provision is applicable to organic liquids not gasoline.
- Changed the text in Section 302.3(i) to be consistent with the text in Section 302.2(e) regarding capturing and collecting spilled gasoline
- Added new Section 302.3(j) to be consistent with the text in Section 302.4(b) regarding the conditions under which a stationary gasoline storage tank shall be loaded with gasoline
- Changed the text in Section 302.4(a) to be consistent with the text in Section 302.2(a) regarding verifying and maintaining the gasoline cargo tank integrity
- Changed the title of the application for a Maricopa County Vapor Tightness Certification decal.
- Deleted the phrase “or a designee of the Control Officer,” in Section 502.1
- Added “the gasoline cargo tank unit number” to Section 502.2(a) regarding information that must be included in the “Maricopa County Vapor Tightness Certification Decal Application”
- 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.

- Deleted Section 504.3 (Test Methods-Test of Internal Vapor Valves) because requirements are in Sections 504.1 (Compliance-Pressure and Vacuum Tests) and 504.2 (Compliance-Test of Internal Vapor Valves)
- Deleted Section 504.4 (Test Methods-Delivery Vessel Vapor Tightness Test) because requirements are in Section 503.1 (Monitoring for Leaks-Combustible Gas Detector or an Organic Vapor Analyzer)

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

No comments were received during the comment period.

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 test methods are incorporated by reference in Rule 352, Section 505:

- Optical Gas Imaging: Alternative Work Practice for Monitoring Equipment Leaks, 40 CFR 60.18(g)
- EPA Method 21 - Determination of Volatile Organic Compound Leaks
- EPA Method 27 - Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure Vacuum Test
- ASTM D323-15a "Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method)

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 352

GASOLINE DELIVERY VESSEL CARGO TANK TESTING AND USE

INDEX

SECTION 100 – GENERAL

- 101 PURPOSE
- 102 APPLICABILITY
- 103 PARTIAL EXEMPTIONS

SECTION 200 – DEFINITIONS

- ~~201~~ ~~2-POINT SYSTEM~~
- 201 AVIATION GASOLINE
- 202 BULK GASOLINE PLANT
- 203 BULK GASOLINE TERMINAL
- 204 COAXIAL VAPOR BALANCE SYSTEM
- 205 DUAL-POINT VAPOR BALANCE SYSTEM
- ~~202~~ 206 EXCESS GASOLINE DRAINAGE
- ~~203~~ 207 GASOLINE
- ~~204~~ ~~GASOLINE DELIVERY VESSEL~~
- 208 GASOLINE CARGO TANK
- 209 GASOLINE DISPENSING FACILITY (GDF)
- ~~205~~ 210 GASOLINE VAPORS
- ~~206~~ 211 LEAK FREE
- ~~207~~ 212 MARICOPA COUNTY (MC) ~~PRESSURE~~ VAPOR TIGHTNESS TEST
- ~~208~~ 213 PURGING
- ~~209~~ 214 STAGE 1 VAPOR RECOVERY SYSTEM (VR SYSTEM)
- 215 SUBMERGED FILL
- ~~240~~ 216 SWITCH LOADING
- ~~244~~ 217 VAPOR TIGHT

SECTION 300 – STANDARDS

- ~~301~~ ~~PREVENT LEAKS AND SPILLS~~
- ~~302~~ ~~GASOLINE DELIVERY VESSEL LEAK TEST REQUIRED~~
- ~~303~~ ~~DISPLAY A VALID DECAL~~

- 304 ~~PURGING PROHIBITED~~
- 305 ~~EXEMPTIONS~~
- 301 GASOLINE CARGO TANK REQUIREMENTS
- 302 LOADING OF GASOLINE

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

- 401 MARICOPA COUNTY (MC) VAPOR TIGHTNESS TESTING TEST
- 402 ~~TIME FRAME FOR~~ INSTALLATION OF CONTROL DEVICE

SECTION 500 – RECORDS AND MONITORING

- 501 MARICOPA COUNTY (MC) GASOLINE CARGO TANK VAPOR TIGHTNESS TESTING REQUIREMENTS
- 501 502 RECORDKEEPING AND REPORTING REQUIREMENTS
- 502 503 MONITORING FOR LEAKS
- 503 504 COMPLIANCE DETERMINATION
- 504 505 ~~TEST METHODS~~ METHODS INCORPORATED BY REFERENCE

Revised 07/13/88

Revised 11/16/92

Revised 05/05/99

Revised 09/25/13

Revised 07/13/1988; Revised 11/16/1992; Revised 05/05/1999; Revised 09/25/2013; and Revised 11/02/2016

MARICOPA COUNTY

AIR POLLUTION CONTROL REGULATIONS

REGULATION III – CONTROL OF AIR CONTAMINANTS

RULE 352

~~GASOLINE DELIVERY VESSEL~~ CARGO TANK TESTING AND USE

SECTION 100 – GENERAL

- 101 **PURPOSE:** To limit emissions of volatile organic compounds (VOC) from gasoline ~~delivery vessels~~ cargo tanks.

102 **APPLICABILITY:** This rule applies to any gasoline ~~delivery vessel~~ cargo tank which is used to ~~receive or deliver~~ load gasoline within Maricopa County, and to all persons who own, operate, maintain, repair, or test such a ~~vessel~~ gasoline cargo tank.

103 **PARTIAL EXEMPTIONS:**

103.1 This rule does not apply to a gasoline cargo tank when loading the following fuels:

- a.** Aviation gasoline loaded at airports.
- b.** Diesel.
- c.** Liquefied petroleum gas (LPG).

103.2 A gasoline cargo tank is exempt from the Maricopa County (MC) Vapor Tightness Test requirements of Section 301 of this rule, if the gasoline cargo tank meets the requirements in Sections 103.1(a), (b), or (c) of this rule.

a. A gasoline cargo tank is exempt from the MC Vapor Tightness Test requirements of Section 301 of this rule, if the gasoline cargo tank meets all of the following conditions:

- (1)** The gasoline cargo tank was placed in operation before July 13, 1988; and
- (2)** The gasoline cargo tank transported gasoline within Maricopa County before January 1, 1998; and
- (3)** The gasoline cargo tank never loads at a gasoline terminal; and
- (4)** The gasoline cargo tank serves only farm tanks or those non-resale gasoline dispensing operations having a yearly throughput not exceeding 120,000 gallons of gasoline, verified by monthly records pursuant to Section 500 of this rule; and
- (5)** The owner or operator of the gasoline cargo tank submits a signed affidavit to the Control Officer documenting compliance with Sections 103.1(a) through 103.1(c) of this rule; and
- (6)** The owner or operator has a complete copy of the signed affidavit available in the gasoline cargo tank for inspection by a bulk gasoline plant operator or the Control Officer. Maricopa County will not issue a decal to any gasoline cargo tank claiming this exemption.

b. A gasoline cargo tank is exempt from the MC Vapor Tightness Test requirements of Section 301 of this rule, if at least one of the following conditions is met:

(1) The gasoline load originated solely outside of Arizona.

(2) The gasoline load originated within Maricopa County but is not delivered within Maricopa County.

c. A gasoline cargo tank is exempt from the MC Vapor Tightness Test requirements of Section 301 of this rule, if the owner or operator of a gasoline cargo tank provides documentation from another agency that attests to the vapor integrity of the gasoline cargo tank and complies with Section 401.2 of this rule.

103.3 An owner or operator of a gasoline cargo tank exempted by Section 103.2(a) of this rule is allowed to incidentally purge gasoline vapors from the gasoline cargo tank as a passive result of loading, or briefly when lids or ports must be open for inspection.

103.4 **Opening Hatches on Gasoline Cargo Tanks:**

a. Owners or operators, their contractors, and authorized government agents may open vapor containment equipment on a gasoline cargo tank while performing operations required by governmental agencies, but shall be restricted as follows, unless approved in advance by the Control Officer:

(1) Wait at least 3 minutes before opening its hatch or other vapor seal on a gasoline cargo tank:

(a) When loading of gasoline is complete.

(b) After a gasoline cargo tank has come to a complete stop.

(2) Reclose hatch or other sealing device within 3 minutes of completing the required procedures.

(3) Limit wind speed at opened hatch or other opened sealing device to not more than 3 mph (1.34 m/sec), using a barrier if necessary.

b. **Loading:** Hatches of a gasoline cargo tank may be open for monitoring to prevent overflow during the period that the gasoline cargo tank is loading gasoline from a tank or other source, if so required by a local fire code or other ordinance.

- c. Connecting Coaxial Fittings:** Requirements for first connecting a vapor recovery hose before a gasoline cargo tank loading hose do not apply to coaxial vapor recovery connection fittings.

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 2 POINT SYSTEM: A fill pipe and a vapor recovery pipe pair which are in close proximity to one another and are connected directly to and emerge directly above the tank they serve.~~

201 AVIATION GASOLINE (AVGAS): A type of gasoline used to fuel a piston engine aircraft.

202 BULK GASOLINE PLANT: Any gasoline storage and distribution facility that meets all of the following:

202.1 Loads gasoline from a pipeline, rail, or gasoline cargo tank into a stationary storage tank;

202.2 Loads gasoline from the stationary storage tank into gasoline cargo tanks for transport to gasoline dispensing facilities; and

202.3 Has a gasoline throughput of less than 20,000 gallons per day. Gasoline throughput shall be the maximum calculated design throughput which may be limited by compliance with an enforceable condition under Federal, State, or local law, and discoverable by the Control Officer.

203 BULK GASOLINE TERMINAL: Any gasoline storage and loading facility that meets all of the following:

203.1 Loads gasoline from a pipeline, rail, or gasoline cargo tank into a stationary storage tank;

203.2 Loads gasoline from the stationary storage tank into gasoline cargo tanks for transport to gasoline dispensing facilities; and

203.3 Has a gasoline throughput of 20,000 gallons per day or greater. Gasoline throughput shall be the maximum calculated design throughput which may be limited by compliance with an enforceable condition under Federal, State, or local law, and discoverable by the Administrator and any other person.

204 COAXIAL VAPOR BALANCE SYSTEM: A type of vapor balance system in which the gasoline vapors are removed through the same fill pipe connection as which the fuel is delivered.

205 **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.

202 **206** **EXCESS GASOLINE DRAINAGE:** More than 10 milliliters (2 teaspoonsful) of liquid gasoline lost from the end of a loading hose or vapor hose in the process of connecting or disconnecting a gasoline delivery loading hose; or any quantity of gasoline lost during those processes 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 pipe's spill containment receptacle.

203 **207** **GASOLINE:** Any petroleum distillate, petroleum distillate/alcohol blend, petroleum distillate/organic compound blend, or alcohol having or blend of petroleum distillate with other combustible liquid(s), such as alcohol, that is used as a fuel for internal combustion engines and has a Reid vapor pressure between 4.0 and 14.7 psi (200–760 mm Hg.) as determined by Section 505 of this rule, and which is used as a fuel for internal combustion engines. For the purposes of this rule, liquefied petroleum gas (LPG) is excluded.

204 ~~**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.~~

208 **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 gasoline cargo tank carries through which deliveries must be made.

209 **GASOLINE DISPENSING FACILITY:** Any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline fueled engines and equipment.

205 **210** **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.

206 **211** **LEAK FREE:** Having no single liquid gasoline leak of more than 3 drops per minute from a gasoline ~~delivery vessel~~ cargo tank, including fill hose(s) and vapor hose(s), but not including the disconnecting or connecting of either a gasoline hose from a gasoline fill line or a vapor hose from a vapor line.

207 **212** **MARICOPA COUNTY (MC) ~~PRESSURE~~ VAPOR TIGHTNESS TEST:** The complete pressure, vacuum, and vapor-valve testing of a gasoline ~~delivery vessel~~ cargo tank that is performed according to Maricopa County specifications as described in ~~subsection 302.2~~ Section 501 of this rule.

208 **213** **PURGING:** Removing, cleaning, or scouring out gasoline vapors from all or a portion of a ~~delivery vessel~~ gasoline cargo tank by active or passive means and emitting the vapors into the atmosphere.

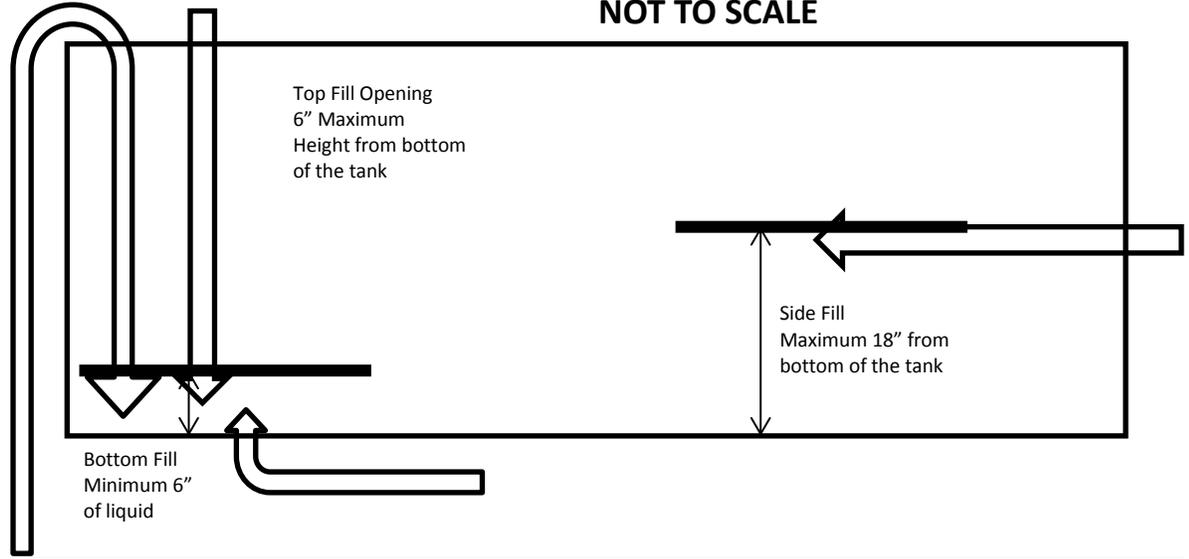
209 **214** **STAGE 1 VAPOR RECOVERY SYSTEM (VR SYSTEM):** Any piping, hoses, equipment, and/or devices which are used to collect, store, or process gasoline vapors displaced by the ~~delivery~~ loading of gasoline and also by the unloading of gasoline into a vapor laden ~~delivery vessel~~ gasoline cargo tank.

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

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

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

**Submerged Fill Diagram
NOT TO SCALE**



210 **216** **SWITCH LOADING:** Loading diesel fuel into a ~~delivery vessel~~ gasoline cargo tank whose previous load was gasoline; or loading any liquid not subject to this rule into a ~~delivery vessel~~ gasoline cargo tank whose previous load was gasoline.

211 **217** **VAPOR TIGHT:** A condition in which a suitable detector at the site of (potential) leakage of vapor shows less than 10,000 ppmv when calibrated with methane or the detector shows less than 1/5 ~~LEL (lower explosive limit)~~ subsequent to calibration lower explosive limit (LEL) when calibrated with a gas specified by the manufacturer and is used according to the manufacturer's instructions.

SECTION 300 – STANDARDS

301 PREVENT LEAKS AND SPILLS:

301.1 ~~Vessel Integrity: In Maricopa County, no person shall store or transport gasoline in or otherwise use or operate any gasoline delivery vessel unless such vessel is designed and maintained to be vapor tight and leak free.~~

301.2 **Onloading Measures:**

- a. ~~At any bulk loading rack, connect a vapor return hose before connecting any loading hose.~~
- b. ~~At a bulk plant, connect an additional vapor hose before connecting any additional loading hose, unless an assisted vapor return system is serving the vapor hose that is already connected.~~

~~e. Use a bucket or other effective capture device to catch any liquid dripping during the connection or disconnection of both the loading hose from the truck and the vapor hose from the loading dock's vapor receiving pipe.~~

~~(1) Either dispose of the captured liquid in a tank designated for that purpose, or use a receptacle or a material designed to absorb the liquid.~~

~~(2) Any gasoline that escapes or spills must be collected and contained.~~

~~301.3 Prevent Spills and Excess Drainage: A driver/operator of a gasoline delivery vessel shall:~~

~~a. Thoroughly drain a fill hose and a vapor recovery hose into the dispensing tank before disconnecting it from the tank's fittings.~~

~~b. Connect and disconnect fill hoses and vapor recovery hoses in such a way as to prevent excess gasoline drainage (more than 2 teaspoonsful) from escaping from the hose in one connect/disconnect cycle.~~

~~c. Spills and any gasoline that is deposited in or on an area other than within the dispensing tank shall be collected and contained. This can include, but is not limited to, the correct use of buckets and/or absorbent material designed for the purpose, and the correct disposal of the collected gasoline.~~

~~301.4 Vapor Hose use Required at Retail Gas Stations:~~

~~a. A driver/operator shall not deliver gasoline to a dispensing tank at a retail gas station unless a vapor hose is first connected from the vessel to a vapor return line serving the tank.~~

~~b. No delivery shall be made to a retail tank if:~~

~~(1) it is not served by a vapor return, or~~

~~(2) if it has a locked cap that cannot be removed, or~~

~~(3) if broken fittings prevent correct connection of the vapor hose.~~

~~301.5 Prevent Vapor Escape During Deliveries: For gasoline dispensing tanks that are equipped with a Stage 1 vapor recovery system (VR System):~~

~~a. During delivery, the vessel operator shall not remove the lid of a fill tube unless every other fill tube either has a lid fastened in place or a delivery hose connecting it to the delivery vessel.~~

- b. ~~Connect a vapor recovery hose before connecting any gasoline delivery hose.~~
- e. ~~Disconnect a delivery hose from a tank before disconnecting the vapor recovery hose.~~
- d. ~~Restriction on Multiple Connection: A delivery vessel shall not simultaneously have more than one gasoline delivery hose connected, unless each delivery hose is connected to a dispensing tank's 2 point system that already has a vapor hose connecting it to the vessel.~~

~~301.6 Vapor Recovery Systems Having Remote Vapor Return Lines: If a delivery vessel's vapor hose is connected to a vapor return line that is not part of a 2 point system, then there shall not be more than one gasoline delivery hose connected to the vessel, and no other hoses connected to a fill tube; viz., no more than one compartment of the delivery vessel shall be emptied at a time.~~

~~302 GASOLINE DELIVERY VESSEL LEAK TEST REQUIRED: A gasoline delivery vessel shall first pass the MC Pressure Test before delivering or unloading gasoline within Maricopa County, and to continue, must pass the MC Pressure Test each year thereafter. This does not apply to loads that originate solely in another state, nor to loads originating in Maricopa County that are not delivered in Maricopa County.~~

~~302.1 Testing: The MC Pressure Test shall be performed according to subsection 302.2.~~

- a. ~~Scheduling and notification of an initial test or annual retest shall be done in accordance with subsection 401.1 and subsection 401.3.~~
- b. ~~A tester shall record the results of a Pressure Test according to the format in subsection 501.2.~~
- e. ~~A valid Maricopa County Air Quality Department decal shall be affixed to the vessel consequent to passing the MC Pressure Test before the vessel may deliver or unload gasoline.~~
- d. ~~An owner or operator of a delivery vessel shall comply with subsection 401.2 registration requirements to obtain a valid Maricopa County Air Quality Department decal after a successful MC Pressure Test.~~

~~302.2 MC Pressure Test: A vessel that is being MC Pressure Tested shall pass all 3 of the following pressure subtests, in the following order, and use the same vapor hose during the test as will be used for deliveries by that same unit:~~

- a. ~~Positive Pressure Subtest: Lose no more than 1.0 inch (25.4 mm) of water column in 5.0 minutes, when pressurized to a gauge pressure of 18 inches (45.7 cm) of water in 2-~~

~~consecutive runs according to procedures in subsections 5.1.1 through 5.2.7 of EPA Method 27, as incorporated by reference in Section 504 of this rule; and~~

- ~~b. Vapor Valve Subtest: Lose no more than 5.0 inches (127 mm) of water column in 5.0 minutes, measured in the vapor system after the vessel compartments are first collectively pressurized to a gauge pressure of 18 inches (45.7 cm) of water and then the vapor valves are closed, per subsection 503.2 of this Rule 352; and~~
- ~~c. Partial Vacuum Subtest: Gain no more than 1.0 inch (25.4 mm) of water column in 5.0 minutes, when initially evacuated to a gauge pressure of 6 inches (15.2 cm) of water, in 2 consecutive runs, per subsections 5.3.1 through 5.3.7 of EPA Method 27, as incorporated by reference in Section 504 of this rule.~~
- ~~d. Pressure Instability: A subtest is invalidated if during either of the pressure subtests, more than 1/2 inch water pressure is gained, or if during the vacuum test the vacuum is increased by more than minus 1/2 inch.~~

~~302.3 A vessel shall be repaired, retested, and pass all 3 subtests in the same testing period within 15 days of testing if it does not pass all 3 subtests of subsection 302.2 of this rule.~~

~~303 DISPLAY A VALID DECAL: Each gasoline delivery vessel shall clearly display a valid Maricopa County Air Quality Department decal that is permanently mounted near the front on the right (passenger) side of the vessel.~~

~~304 PURGING PROHIBITED:~~

~~304.1 No person shall purge gasoline vapors into the atmosphere from a delivery vessel unless the following conditions are met:~~

- ~~a. VOC emissions shall be reduced at least 90% by weight, including capture and processing, by a control device having a Maricopa County Air Pollution Permit; and~~
- ~~b. Such purging shall be done only after all delivery valves are opened and any liquid gasoline outflow is captured in a container having an attached lid which is kept closed when not receiving or pouring gasoline.~~

~~304.2 An operator of a delivery vessel shall not purge gasoline vapors from such vessel as a passive result of switch loading, except for vessels exempted by subsection 305.1.~~

305 EXEMPTIONS:

305.1 A delivery vessel is exempt from pressure test requirements of Section 302 if all of the following conditions are met:

- a. The vessel was placed in operation before July 13, 1988; and
- b. The vessel transported gasoline within Maricopa County before January 1, 1998; and
- c. The vessel never loads at a gasoline terminal; and
- d. The vessel serves only farm tanks and/or those non-resale dispensing operations having a yearly throughput not exceeding 120,000 gallons of gasoline, verified by monthly records pursuant to subsection 501.1a; and
- e. The vessel either has a sticker affixed to it that indicates to a bulk plant operator that the vessel may be loaded in Maricopa County, or has an affidavit signed by an owner or officer of the operating company filed with the Maricopa County Air Quality Department, with a complete copy of the signed affidavit available in the vehicle for inspection by a bulk plant operator or the Control Officer.

305.2 An operator of a delivery vessel exempted by subsection 305.1 is allowed to incidentally purge gasoline vapors from such vessel as a passive result of loading, or briefly when lids/ports must be open for inspection.

305.3 Opening Hatches on Non-Exempt Vessels:

- a. Required by Rule: Owners/operators, their contractors, and authorized government agents may open vapor containment equipment on a nonexempt gasoline delivery vessel while performing operations required by governmental agencies, but shall be restricted as follows, unless approved in advance by the Control Officer:
 - (1) Wait at least 3 minutes after onloading is complete and after a delivery vessel has stopped before opening its hatch or other vapor seal.
 - (2) Reclose hatch or other sealing device within 3 minutes of completing the required procedures.
 - (3) Limit windspeed at opened hatch or other opened sealing device to not more than 3 mph (1.34 m/sec), using a barrier if necessary.

- b. ~~Defueling: Hatches of a delivery vessel may be open for monitoring to prevent overflow during the period that the vessel is receiving gasoline from a tank or other source, if so required by a local fire code or other ordinance.~~
- e. ~~Connecting Coaxial Fittings: Requirements for first connecting a vapor hose before a gasoline delivery hose do not apply to coaxial VR connection fittings.~~

301 GASOLINE CARGO TANK REQUIREMENTS:

301.1 Gasoline Cargo Tank Integrity: In Maricopa County, an owner or operator of a gasoline cargo tank shall not store or transport gasoline in or otherwise use or operate any gasoline cargo tank unless:

- a. The gasoline cargo tank is designed and maintained to be vapor tight and leak free.
- b. The gasoline cargo tank passes the MC Vapor Tightness Test unless exempted by Section 103 of this rule.
- c. A valid, permanently mounted Maricopa County Vapor Tightness Certification decal is clearly displayed near the front right (passenger) side of the gasoline cargo tank, if not exempted by Section 103 of this rule.

301.2 MC Vapor Tightness Test: A gasoline cargo tank shall pass the MC Vapor Tightness Test before loading gasoline within Maricopa County, unless exempted by Section 103 of this rule.

- a. **Testing:** The MC Vapor Tightness Test shall be performed according to Section 501 of this rule.
 - (1) Scheduling and notification of a gasoline cargo tank MC Vapor Tightness Test shall be done in accordance with Section 401.1 of this rule.
 - (2) A tester shall record the results of the MC Vapor Tightness Test according to Section 502.2 of this rule.
 - (3) If a gasoline cargo tank does not pass all three (3) subtests of the MC Vapor Tightness Test as listed in Section 502.2 of this rule, the gasoline cargo tank shall be repaired, retested, and pass all 3 subtests in the same testing period within 15 days of initial testing.
- b. **Maricopa County Vapor Tightness Certification Decal:** An owner or operator of a gasoline cargo tank shall:

- (1) Comply with Sections 401.1 and 401.2 of this rule for notification and registration requirements to obtain a valid Maricopa County Vapor Tightness Certification decal after passing the MC Vapor Tightness Test; and
- (2) Each gasoline cargo tank shall clearly display a valid Maricopa County Vapor Tightness Certification decal that is permanently mounted near the front on the right (passenger) side of the gasoline cargo tank, unless exempted by Section 103 of this rule.

301.3 Purging:

- a. An owner or operator is allowed to purge gasoline vapors from a gasoline cargo tank if the following conditions are met:
 - (1) VOC emissions shall be reduced at least 90% by weight, including capture and processing, by a control device having a Maricopa County Air Pollution Permit; and
 - (2) Such purging shall be done only after all loading valves are opened and any liquid gasoline outflow is captured in a container having an attached lid which is kept closed when not receiving or pouring gasoline.
- b. An owner or operator of a gasoline cargo tank shall not purge gasoline vapors from such tank as a passive result of switch loading, except for gasoline cargo tanks exempted by Section 103 of this rule.

302 LOADING OF GASOLINE:

302.1 Loading of Gasoline into a Gasoline Cargo Tank from a Bulk Plant: An owner or operator of a gasoline cargo tank shall only load gasoline at a bulk gasoline plant loading rack when the following conditions are met:

- a. The gasoline cargo tank integrity is maintained and verified by:
 - (1) The display of a Maricopa County Vapor Tightness Certification decal on the gasoline cargo tank; or
 - (2) An affidavit per Section 103.2(a)(6) of this rule is readily available.
- b. A vapor recovery hose shall be connected prior to the connection of any gasoline loading hose at any bulk loading rack.

- c. Connect an additional vapor recovery hose before connecting any additional gasoline loading hose, unless an assisted vapor recovery system is serving the vapor hose that is already connected.
- d. Disconnect loading hoses and vapor recovery hoses in such a way as to prevent excess gasoline drainage (more than 2 teaspoonsful) from escaping from the hose in one connect/disconnect cycle.
- e. Use a bucket or other effective capture device to catch any gasoline dripping during the connection or disconnection of both the gasoline loading hose from the gasoline cargo tank and the vapor hose from the loading dock's vapor receiving pipe.
 - (1) Spills and any gasoline that is deposited in or on an area other than within the gasoline cargo tank shall be collected and contained. This can include, but is not limited to, the correct use of buckets and/or absorbent material designed for the purpose and the correct disposal of the collected gasoline.
 - (2) Any gasoline that escapes, spills, or leaks must be collected and contained in a manner that will prevent evaporation into the atmosphere.

302.2 Loading of Gasoline at a Bulk Terminal: An owner or operator of a gasoline cargo tank shall only load gasoline at a gasoline bulk terminal when the following conditions are met:

- a. The gasoline cargo tank integrity shall be maintained and verified by the display of a Maricopa County Vapor Tightness Certification decal on the gasoline cargo tank.
- b. A vapor recovery hose shall be connected prior to the connection of any gasoline loading hose at any bulk loading rack.
- c. Connect an additional vapor recovery hose before connecting any additional gasoline loading hose, unless an assisted vapor return system is serving the vapor hose that is already connected.
- d. Disconnect loading hoses and vapor recovery hoses in such a way as to prevent excess gasoline drainage (more than 2 teaspoonsful) from escaping from the hose in one connect/disconnect cycle.

- e. Use a bucket or other effective capture device to catch any gasoline dripping during the connection or disconnection of both the gasoline loading hose from the gasoline cargo tank and the vapor hose from the loading dock's vapor receiving pipe.
 - (1) Spills and any gasoline that is deposited in or on an area other than within the gasoline cargo tank shall be collected and contained. This can include, but is not limited to, the correct use of buckets and/or absorbent material designed for the purpose and the correct disposal of the collected gasoline.
 - (2) Any gasoline that escapes, spills, or leaks must be collected and contained in a manner that will prevent evaporation into the atmosphere.

302.3 Loading of Gasoline into a Stationary Gasoline Storage Tank at a Non-Retail Gasoline

Dispensing Facility: An owner or operator of a gasoline cargo tank shall only load gasoline at a non-retail gasoline dispensing facility when the following conditions are met:

- a. The gasoline cargo tank integrity is maintained and verified by:
 - (1) The display of a Maricopa County Vapor Tightness Certification decal on the gasoline cargo tank; or
 - (2) An affidavit per Section 103.2(a)(6) of this rule is readily available.
- b. A vapor recovery hose shall be connected prior to the connection of any gasoline loading hose if the stationary gasoline storage tank is configured to include a vapor return connection.
- c. Vapor Recovery Systems Having Remote Vapor Return Lines: If a gasoline cargo tank's vapor recovery hose is connected to a vapor return line that is not part of a dual-point vapor balance system, then there shall not be more than one gasoline loading hose connected to the gasoline cargo tank, and no additional hoses connected to a fill pipe.
- d. An owner or operator shall not remove the lid of a fill pipe unless every other fill pipe either has a lid fastened in place or a loading hose connecting it to the gasoline cargo tank.
- e. A portable fill pipe shall be used to load gasoline into any stationary gasoline storage tank that is not equipped with a permanent submerged fill pipe.
- f. Restriction on Multiple Connections: A gasoline cargo tank shall not simultaneously have more than one gasoline loading hose connected, unless each loading hose is connected to a

gasoline cargo tank's dual-point vapor balance system that already has a vapor recovery hose connecting it to the gasoline cargo tank.

- g.** A loading hose and a vapor recovery hose shall be thoroughly drained into the gasoline cargo tank before disconnecting the gasoline cargo tank from the gasoline cargo tank's fittings.
- h.** The loading hoses and vapor recovery hoses shall be disconnected in such a way as to prevent excess gasoline drainage (more than 2 teaspoonsful) from escaping from the hose in one connect/disconnect cycle.
- i.** A bucket or other effective capture device shall be used to catch any gasoline dripping during the connection or disconnection of both the gasoline loading hose from the gasoline cargo tank and the vapor hose from the loading dock's vapor receiving pipe.

 - (1)** Spills and any gasoline that is deposited in or on an area other than within the gasoline cargo tank shall be collected and contained. This can include, but is not limited to, the correct use of buckets and/or absorbent material designed for the purpose and the correct disposal of the collected gasoline.
 - (2)** Any gasoline that escapes, spills, or leaks must be collected and contained in a manner that will prevent evaporation into the atmosphere.
- j.** An owner or operator of a gasoline cargo tank shall only load gasoline into a stationary gasoline storage tank when:

 - (1)** The stationary gasoline storage tank is equipped with a vapor return poppetted valve.
 - (2)** Any locked cap can be removed.
 - (3)** The stationary gasoline storage tank does not have any broken or damaged fitting that prevent the correct connection of a loading hose or a vapor hose.

302.4 Loading of Gasoline into a Stationary Gasoline Storage Tank at a Retail Gasoline Dispensing

Facility: An owner or operator of a gasoline cargo tank shall only load gasoline at a retail gasoline dispensing facility when the following conditions are met:

- a.** The gasoline cargo tank integrity shall be maintained and verified by the display of a Maricopa County Vapor Tightness Certification decal on the gasoline cargo tank.

- b.** An owner or operator of a gasoline cargo tank shall only load gasoline into a stationary gasoline storage tank when:
- (1)** The stationary gasoline storage tank is equipped with a vapor return poppetted valve.
 - (2)** Any locked cap can be removed.
 - (3)** The stationary gasoline storage tank does not have any broken or damaged fitting that prevent the correct connection of a loading hose or a vapor hose.
- c.** An owner or operator shall not load gasoline to a stationary gasoline storage tank at a retail gasoline dispensing facility unless a vapor hose is first connected from the gasoline cargo tank to a vapor return-line serving the stationary gasoline storage tank.
- d.** Vapor Recovery Systems Having Remote Vapor Return Lines: If a gasoline cargo tank's vapor hose is connected to a vapor return line that is not part of a dual-point vapor balance system, then there shall not be more than one gasoline delivery hose connected to the gasoline cargo tank, and no additional hoses connected to a fill tube.
- e.** An owner or operator shall not remove the lid of a fill tube unless every other fill tube either has a lid fastened in place or a delivery hose connecting it to the gasoline cargo tank.
- f.** Restriction on Multiple Connection: A gasoline cargo tank shall not simultaneously have more than one gasoline delivery hose connected, unless each delivery hose is connected to a gasoline cargo tank's dual-point vapor balance system that already has a vapor hose connecting it to the gasoline cargo tank.
- g.** Thoroughly drain a loading hose and a vapor recovery hose into the gasoline cargo tank before disconnecting it from the gasoline cargo tank's fittings.
- h.** Disconnect a loading hose from a stationary gasoline storage tank before disconnecting the vapor recovery hose.
- i.** Disconnect Loading hoses and vapor recovery hoses in such a way as to prevent excess gasoline drainage (more than 2 teaspoonsful) from escaping from the hose in one connect/disconnect cycle.
- i.** Spills and any gasoline that are deposited in or on an area other than within the gasoline cargo tank shall be collected and contained. This can include, but is not limited to, the correct use of

buckets and/or absorbent material designed for the purpose, and the correct disposal of the collected gasoline.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

401 MARICOPA COUNTY (MC) VAPOR TIGHTNESS TESTING TEST: Testing required by ~~subsections 302.2a, b, and e~~ Section 301.2 of this rule, shall be conducted by the owner or operator of the ~~delivery-vessel gasoline cargo tank,~~ or by a consultant, at the expense of the owner or operator. The Control Officer may at any time observe the tests. An owner or operator shall comply with the following provisions:

401.1 Notification of Required Testing: The owner, operator, or tester shall notify the Control Officer as follows for each ~~vessel gasoline cargo tank~~ being tested to meet requirements of ~~Section 302 or subsection 301.2~~ Section 301.2 of this rule:

- a. Contact the Control Officer during normal business hours of the Department at least 4 hours prior to gasoline cargo tank vapor tightness testing; ~~and~~
- b. ~~Give~~ Provide an estimated start time that is no more than 1 hour prior to actual gasoline cargo tank vapor tightness testing start time;
- c. Except for weekend testing, the Control Officer shall be notified no more than ~~24 hours in advance of~~ 72 hours prior to gasoline cargo tank vapor tightness testing;
- d. For weekend testing, the notification shall be given, along with the date of testing, prior to 2 PM on Friday (or Thursday, if Friday is a County holiday);
- e. Give the location of the testing;
- f. Any testing that is performed in the 8 hour period between 9 PM and 5 AM is not valid for purposes of satisfying ~~Section 302~~ Section 301.2 of this rule requirements, except if the Control Officer gives specific, advance permission for a particular occasion.

401.2 Registration: To obtain a Maricopa County Vapor Tightness Certification decal, ~~the~~ the following information shall be submitted to the Control Officer for each ~~vessel gasoline cargo tank~~ that passes the required ~~annual~~ gasoline cargo tank vapor tightness test:

- a. Assemble in 1 packet the following 3 items: (1) A properly A completed “APPLICATION FOR AIR POLLUTION VAPOR RECOVERY TIGHTNESS CERTIFICATION” MARICOPA COUNTY VAPOR TIGHTNESS CERTIFICATION

DECAL APPLICATION” (also called ~~“The Application”~~ application), and that includes, at a minimum, all of the following information required by Section 502.2 of this rule.

- (2) **b.** A ~~properly~~ completed copy of the ~~MCESD~~ “Maricopa County Air Quality Department Gasoline Cargo Tank Vapor Tightness ~~“Tank Truck Leak~~ Certification Check List” (checklist), and
- (3) **c.** The annual fee remittance. ~~(The fee amount appears as listed in Rule 280.)~~
- b.** ~~Send or convey this single packet to the Maricopa County Air Quality Department at the address on the top of the application.~~
- e. **d.** Upon receipt of ~~these 3 properly completed items~~ the completed application, checklist and fee remittance, a Maricopa County Vapor Tightness Certification decal will be issued by the Control Officer.

401.3 Expiration:

- a. A Maricopa County Vapor Tightness Certification decal that is issued to a ~~vessel~~ gasoline cargo tank that passed its test in the 4-month period between March 1 through June 30 shall expire at 11:59 PM on June 30 of the following year.
- b. A Maricopa County Vapor Tightness Certification decal that is issued to a ~~vessel~~ gasoline cargo tank that passed its test in the period after June 30 of the previous year and before March 1 of the current year shall expire at 11:59 PM on June 30 of the following year. ~~For example, if the test is passed between July 1, 2000, through February 28, 2001, the decal expires on June 30, 2001.~~

401.4 ~~Loss~~ Lost, Defaced or Destroyed Maricopa County Vapor Tightness Certification Decal:

- a. An owner or operator shall notify the Control Officer immediately if a valid ~~decal/sticker~~ Maricopa County Vapor Tightness Certification decal is lost, defaced, or destroyed.
- b. The Control Officer may require a demonstration of need for decal replacement.
- c. If Rule 280 so provides, the Control Officer may charge a fee for reissue or substitute issue of a lost, defaced, or destroyed ~~decal/sticker~~ Maricopa County Vapor Tightness Certification decal, if the Control Officer determines that the Department is not at fault.

402 ~~TIME FRAME FOR INSTALLATION OF CONTROL DEVICE:~~ An owner or operator of a vessel gasoline cargo tank testing operation who chooses to comply with the Section ~~304~~ 301.3 of this rule purging provisions through the use of a control device shall submit ~~by August 1, 1999,~~ an application for a Maricopa County Air Pollution Control Permit and an Operation and Maintenance Plan for the control device. ~~The device shall be fully functioning by May 1, 2000.~~

SECTION 500 – RECORDS AND MONITORING

501 MARICOPA COUNTY (MC) GASOLINE CARGO TANK VAPOR TIGHTNESS TESTING

REQUIREMENT:

501.1 Each gasoline cargo tank shall passes all of the vapor tightness tests in the listed order of Section 501.1 of this rule, using the same vapor hose during each test as will be used for loading. If more than one vapor recovery hose is used for loading, the sequence of tests shall be performed for each vapor hose.

- a. Pressure Test:** Lose no more than 1.0 inch (25.4 mm) of water column in 5.0 minutes, when pressurized to a gauge pressure of 18 inches (45.7 cm) of water in 2 consecutive runs according to procedures in subsections 5.1.1 through 5.2.7 of EPA Method 27, as incorporated by reference in Section 505 of this rule; and
- b. Vapor Valve Loss Test:** Lose no more than 5.0 inches (127 mm) of water column in 5.0 minutes, measured in the vapor system after the gasoline cargo tank compartments are first collectively pressurized to a gauge pressure of 18 inches (45.7 cm) of water and then the vapor valves are closed, per Section 504.2 of this rule; and
- c. Vacuum Test:** Gain no more than 1.0 inch (25.4 mm) of water column in 5.0 minutes, when initially evacuated to a gauge pressure of 6 inches (15.2 cm) of water, in 2 consecutive runs, per subsections 5.3.1 through 5.3.7 of EPA Method 27, as incorporated by reference in Section 505 of this rule.
- d. Pressure Instability:** A test is invalidated if during the positive pressure test or the vapor valve loss test, more than ½ inch water pressure is gained. A test is invalid if during the vacuum test the vacuum is increased by more than minus ½ inch.

501.2 A gasoline cargo tank shall be repaired, retested, and pass all three (3) subtests in the same testing period within 15 days of testing if it does not pass all three (3) subtests of Section 501.1 of this rule.

501.502 RECORDKEEPING AND REPORTING REQUIREMENTS:

~~501.1~~ **502.1** The owner or operator of a gasoline ~~delivery vessel~~ cargo tank subject to this rule shall maintain records of all certification, testing, and repairs.

- a. Such records must be maintained in a legible, readily available condition for at least 5 years after the date the testing and repair is completed.
- b. Upon verbal or written request by the Control Officer, ~~or a designee of the Control Officer,~~ records shall be provided within a reasonable time. If the Control Officer is at the site where requested records are kept, records shall be provided without delay.

~~501.2~~ **502.2** The records of the gasoline cargo tank vapor tightness certification testing required by Section ~~302~~ 301.2 of this rule, must be recorded in both of the following documents: ~~the~~ “Application for Air Pollution Vapor Recovery Certification” “Maricopa County Vapor Tightness Certification Decal Application” and the “Maricopa County Air Quality Department Gasoline Cargo Tank Vapor Tightness”~~“Tank Truck Leak Certification Check List”~~. Pressure and vacuum shall be recorded to no less than the nearest quarter inch or half-centimeter of water column. The minimum requirements for each of these 2 documents follow:

- a. For the ~~“Application for Air Pollution Vapor Recovery Certification”~~ “Maricopa County Vapor Tightness Certification Decal Application”:
 - (1) Owner's name and address.
 - (2) ~~Tank ID number, the location of the test, the time of the test, and the date of the test.~~ The manufacturer’s ~~Tank ID~~ gasoline cargo tank serial number,
 - (3) The gasoline cargo tank unit number.
 - (4) The location of the test.
 - (5) The time of the test.
 - (6) The date of the test.

- (3) ~~(7)~~ For the pressure ~~subtest test~~, ~~2 two (2)~~ readings: the change in pressure (in inches ~~H₂O of~~ water) for Run 1 and the change in pressure for Run 2.
- (4) ~~(8)~~ For the vapor-valve ~~loss test subtest (subsection 302.2b)~~, ~~1 one (1)~~ reading: the total change in pressure during the test.
- (5) ~~(9)~~ For the vacuum test, ~~2 two (2)~~ readings: the total change in vacuum during Run 1 and the same for Run 2.

(10) The signature of the person conducting the vapor tightness test.

b. The "Maricopa County Air Quality Department Gasoline Cargo Tank Vapor Tightness "Tank-~~Truck Leak~~ Certification Check List" (or its successor document) shall contain at least the following information:

- ~~(1) The same information required in subsections a(1) and a(2) of this subsection 501.2; and~~
- ~~(2) The time the subtest began, the initial pressure of the subtest, the finish time, the final pressure of the subtest, and the pressure change between the start and end of the subtest; the vessel's unit number, manufacturer's serial number, the tank capacity, whether the tank was purged of gasoline vapors, and the date of the next leakage test if the set of 3 subtests are not all passed.~~
- ~~(3) If the initial pressure test was not passed, one set of readings in the row "Initial Test", also giving the elapsed time if the pressure reached zero before 5 minutes. For example, the row marked "Initial Test" will normally contain the results of the initial failed subtest if any repairs were made subsequent to any pressurization or evacuation of the tank.~~

- (1) Owner's name and address.
- (2) Manufacturer's gasoline cargo tank serial number.
- (3) The gasoline cargo tank unit number.
- (4) The gasoline cargo tank capacity.
- (5) Whether the gasoline cargo tank was purged of gasoline vapors.
- (6) The location of the test.
- (7) The time of the test.
- (8) The date of the test.

- (9) Initial testing information:
 - (a) The time the test began.
 - (b) The initial pressure in inches of water.
 - (c) The finish time of the test.
 - (d) The final pressure of the test.
 - (e) The pressure change between the start and end of the test.
 - (f) If the initial pressure test failed:
 - (i) Record one set of readings in the row "Initial Test."
 - (ii) Record the elapsed time if the pressure reached zero before five (5) minutes.
 - (iii) Record any repairs conducted.
- (10) Testing Information for each test:
 - (a) The time the test began.
 - (b) The initial pressure in inches of water.
 - (c) The finish time of the test.
 - (d) The final pressure of the test; and
 - (e) The pressure change between the start and end of the test.
- (11) The date of the next leakage test if the set of three (3) subtests are not all passed.
- (12) The signature of the person conducting the vapor tightness test.

502 **503**

MONITORING FOR LEAKS: The Control Officer may at any time monitor a ~~delivery vessel~~ gasoline cargo tank, including the vapor collection system, for vapor and liquid leaks to ascertain if it is vapor tight and leak free. ~~Leakage of vapor exceeding 1/5 of the lower explosive limit, or 10,000 ppm as methane, when performed according to subsection 504.4, shall be an exceedance of the vapor tight standard of subsection 301.1.~~ The Control Officer shall follow the test procedure in Section 503.1 of this rule and shall use one or more of the methods in Sections 503.2 and 503.3 of this rule to determine vapor tight and leak free conditions:

503.1 Combustible Gas Detector (CGD) or an Organic Vapor Analyzer (OVA) - Test Procedure:

- 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.

503.2 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 503.1 of this rule, shall be used to verify if a vapor leak exists.

503.3 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 503.1 of this rule shall be used to verify if a vapor leak exists.

503 **504** **COMPLIANCE:** ~~When more than one test method is permitted for a determination, an exceedance of the limits established in the rule determined by any of the applicable test methods constitutes a violation of this rule.~~

503.1 **504.1 Pressure and Vacuum Tests:** ~~The tests to determine compliance with subsection 302.2a and subsection 302.2e~~ Section 501.1 of this rule shall be performed according to EPA Method 27 - Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure Vacuum Test, except that the definition of gasoline shall be according to this ~~Rule 352~~ rule.

503.2 **504.2 Test of Internal Vapor Valves:** ~~The tests to determine compliance with subsection 302.2b~~ Section 501.1 of this rule, shall be performed immediately after successfully passing the pressure subtest ~~(pursuant to subsection 302.2a),~~ without performing any intervening maintenance or repair on the vapor valves.

503.3 **504.3** Confirmation of a vapor leak detected on a vessel gasoline cargo tank during ~~onloading~~ loading shall be determined by properly deploying a pressure tap adapter that conforms to Method 27 provisions, and demonstrating the leak according to ~~subsection 504.4~~ Section 503 of this rule, while the pressure is less than 20 inches of water column.

503.4 **504.4** Pursuant to Section 203, Reid vapor pressure shall be determined using ~~American Society for Testing and Materials (ASTM) Method D 323-90~~ ASTM D323 - 15a: Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method).

504 **505** **TEST METHODS INCORPORATED BY REFERENCE:** ~~The EPA test method as it exists in the Code of Federal Regulations (CFR) (July 1, 1998), as listed below, is 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, Arizona-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.

- 505.1** **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.
- 505.2** EPA Method 21 – Determination of Volatile Organic Compound Leaks.
- 504.1 **505.3** EPA Method 27 (“Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test.”) in 40 CFR 60, Appendix A.
- 504.2 **505.4** American Society for Testing and Materials (ASTM) Method D 323-90, 1990 (Reid vapor pressure). ASTM D323 - 15a: Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method).
- 504.3 Test of Internal Vapor Valves:
- a. Pressurize the delivery vessel to 18 inches (45.7 cm) of water column, using the first 2 procedures of the "Pressure Test" section of EPA Method 27.
 - b. Close all the vessel's internal valves, including the internal vapor valves, thereby isolating the vapor system (vapor return line plus vapor manifold) from the compartments.
 - c. Relieve the pressure in the vapor return line (to atmospheric pressure).
 - d. Seal the vapor return line and after 5.0 minutes record the pressure present in the vapor system.
- 504.4 Delivery Vessel Vapor Tightness Test: A vapor tight condition will be determined for vessels by the following method:
- a. Calibration: Within 4 hours prior to monitoring, the combustible gas detector or organic vapor analyzer shall be suitably calibrated for a 20 percent LEL response, or to 10,000 ppm with methane.

- b. ~~Probe Distance: The probe inlet shall be 1 inch (2.5 cm) or less from the potential leak source when searching for leaks. The probe inlet shall be 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 1 inch (2.5 cm) of an actual or potential leak source, the closest practicable probe distance 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.~~