

**NOTICE OF FINAL RULEMAKING**

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

**RULE 352: GASOLINE CARGO TANK TESTING AND USE**

The Maricopa County Air Quality Department (MCAQD) revised Rule 352 (Gasoline Cargo Tank Testing and Use). The Control Officer is posting this Notice of Final Rulemaking on the MCAQD website as required by A.R.S. § 49-471.07(G). This notice includes the preamble, as prescribed in A.R.S. § 49-471.05, and the full text of the final rule. This notice also includes a list of all previous notices posted on the Maricopa County Enhanced Regulatory Outreach Program (EROP) website addressing the proposed rule and the concise explanatory statement prescribed in A.R.S. § 49-471.07, subsection B.

**PREAMBLE**

**1. Statutory authority for the rulemaking:**

A.R.S. §§ 49-112, 49-474, 49-479 and 49-480

**2. Name and address of department personnel with whom persons may communicate regarding the rulemaking:**

Name: Scott Kahldon or Kimberly Butler  
Maricopa County Air Quality Department  
Planning and Analysis Division  
Address: 3800 N Central Avenue, Suite 1400  
Phoenix, AZ 85012  
Telephone: (602) 506-6706  
Fax: (602) 506-6179  
Email: AQPlanning@maricopa.gov  
Submit Comments At: <http://maricopa.gov/FormCenter/Regulatory-Outreach-17/Citizen-Comments-94>

**3. Rulemaking process:**

This rulemaking (AQ-2017-009-Rule 352) followed procedures identified in state statutes and the Maricopa County EROP Policy:

County Manager Briefing:	December 2017
Board of Health Meeting to Initiate Regulatory Change:	July 23, 2018
Stakeholder Workshops:	May 11, 2018 August 20, 2018 May 21, 2020
Notice of Proposed Rulemaking:	June 12, 2020
Board of Health Meeting to Recommend Approval to the Board of Supervisors:	July 27, 2020

Board of Supervisors Formal Meeting to set the Public Hearing: October 07, 2020  
Board of Supervisors Public Hearing: November 18, 2020

**4. Explanation of the rule, including the control officer's reasons for initiating the rulemaking:**

Rule 352 limits emissions of volatile organic compounds (VOCs) from gasoline cargo tanks. Rule 352 applies to any gasoline cargo tank which is used to load or unload gasoline within Maricopa County, and to all persons who own, operate, maintain, repair, or test such a gasoline cargo tank.

The MCAQD revised Rule 352 to address rule deficiencies identified by the U.S. Environmental Protection Agency (EPA) to secure full approval of Rule 352 as a revision to the Arizona State Implementation Plan (SIP).

On May 4, 2016, portions of Maricopa County were designated as a moderate nonattainment area with respect to the 2008 National Ambient Air Quality Standards for Ozone. Section 182(b)(2) of the Clean Air Act requires jurisdictions that are classified as "moderate" or higher nonattainment to implement reasonable available control technology (RACT) for all categories of VOC sources covered by a Control Technique Guideline (CTG) document as well as all other major stationary sources of VOCs that are located within in the nonattainment area. EPA defines 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". The EPA provides guidance on RACT for VOCs through their CTGs, which offer State and local air pollution control authorities information that assists in determining VOC-RACT for air quality rules. In addition, the EPA reviews SIP-approved air quality rules from other air districts with ozone nonattainment areas to assist in determining VOC-RACT for air quality rules.

In November 2016, Rule 352 was revised to implement RACT for sources of VOCs. The revised rule was submitted to the EPA in June of 2017, as part of the SIP Revision for the Maricopa County Air Quality Department Ozone Rules contained in the Arizona SIP. The EPA reviewed Rule 352 and provided the MCAQD with written rule approvability and rule improvement comments for the rule. EPA staff informed MCAQD staff they would be using a conditional approval process to act on Rule 352 and the MCAQD would need to draft a commitment letter outlining revisions to Rule 352 to address the rule approvability comments.

On January 28, 2019, the MCAQD submitted a Letter of Commitment for Conditional Approval of the Maricopa County RACT SIP to the EPA. Based on the commitment letter, the EPA published a proposed conditional approval of Rule 352 in the Federal Register on September 23, 2019 (Docket ID; EPA-R09-OAR-2019-0493). The proposed conditional approval rulemaking was available for a 30-day comment period, and two comments were submitted to the EPA. The proposed conditional approval referenced a Technical Support Document (TSD) which included a thorough review of Rule 352 and MCAQD's commitments. The TSD outlined EPA's eight (8) official rule approvability comments ("rule deficiencies") - which precluded full approval of the rule into the SIP - as well as 12 rule revision recommendations, which were not the basis for rule disapproval but were recommended for the rulemaking for Rule 352. Revisions addressing both the EPA's

identified deficiencies and recommendations were made to Rule 352 (included in this notice). A link to EPA's TSD is located under Section 5 of this notice.

EPA's final conditional approval was published on February 26, 2020. The effective date of the final rule was March 27, 2020. The MCAQD plans to submit the revised rule to the EPA for approval and if the EPA approves the rule, the identified deficiencies will be cured, and the rule will be approved as part of the Arizona SIP.

Details about the EPA's identified deficiencies and the MCAQD's remedies are described below, followed by the EPA rule recommendations and the MCAQD's revisions to address the recommendations.

#### Deficiency 1:

Sections 103.2(b), 301.2 and 301.2(b)(2) appear to exempt cargo tanks with gasoline loads that originated outside of Arizona, and gasoline loads delivered outside Maricopa County from vapor tightness requirements, including a decal indicating the cargo tank passed the annual vapor tightness certification test.

#### Remedy 1:

The MCAQD corrected this deficiency by deleting the exemption for gasoline cargo tanks loaded outside of Arizona and for gasoline loaded but not delivered within Maricopa County.

#### Deficiency 2:

Section 103.2(c) should provide more specificity regarding which agencies are authorized to attest to the vapor integrity of the gasoline cargo tanks, such as air districts with SIP-approved vapor tightness cargo tank requirements. Additionally, the exemption should require other vapor integrity tests be at least as stringent as the MC vapor tightness test requirements in Section 501.

#### Remedy 2:

The MCAQD corrected this deficiency by deleting the exemption in Section 103.2.c and adding a revised exemption in new Section 103.3.

#### Deficiency 3:

Section 401.3(a) allows a vapor tightness test to remain valid for up to one year and four months, consistent with the SIP-approved rule, and section 401.3(b) allows a vapor tightness test to remain valid for gasoline cargo tanks for up to two years. The CTG requires gasoline cargo tank trucks be certified leak tight annually. Additionally, the VOC model rule for gasoline tank trucks requires the certification sticker to display the date the gasoline tank truck passed the vapor tightness test, the ID number of the truck and requires that the decal expire not more than one year after the date of the vapor tightness test. In other states, the vapor tightness certification for cargo tanks typically expires at around one year. For example, California Air Resources Board Certification Protocol 204 specifies that certifications expire on the last day of the month one year following the month of issuance of the certification. Texas requires the leak-tight test to have been passed within the past

year. We recommend revising Rule 352 to align vapor tightness certification requirements with the CTG and other air districts.

Remedy 3:

The MCAQD revised Section 401.3.b by renumbering it to Section 401.5 and clarifying that a vapor tightness test conducted after June 30 of the previous year and before March 1 of the current year will expire on June 30 of the current year.

Deficiency 4:

Section 103.4(b) allows the hatch to be open during gasoline loading if required by fire code or other ordinance. Opening the hatch while the cargo tank is being loaded would result in significant vapor release and should only be allowed for safety reasons. We recommend that section 103.4(b) be amended to prohibit the opening of a gasoline cargo tank hatch while loading gasoline, unless necessary to avoid unsafe operating conditions.

Remedy 4:

The MCAQD revised Section 103.4.b to clarify and limit the conditions under which a hatch, vent valve, or vapor sealing device may be open during the transfer of gasoline from the cargo tank to the storage tank to those necessary to avoid unsafe operating conditions.

Deficiency 5:

Section 402 requires gasoline cargo tank owners or operators who comply with purging provisions using a control device to submit an application to the county, however, there is no test method specified in the Rule for determining compliance with section 301.3(a)(1), requiring a 90% reduction in VOC emissions by weight. We recommend that the District add an appropriate EPA-approved test method for determining compliance with section 301.3(a)(1).

Remedy 5:

The MCAQD revised Section 301.3.a(1) and added Section 402.4 requiring the use of the applicable test methods in Section 506.

Deficiency 6:

Section 301.3(a) states conditions under which an owner or operator is allowed to purge vapors. It does not prohibit purging in conditions outside of those enumerated. In addition, because section 103.1 exempts a cargo tank from the rule entirely when loading specific other fuels, including diesel, any prohibition on switch loading specified elsewhere in the rule (i.e., section 301.3(b)) would be inapplicable when filling with these fuels. Accordingly, the rule does not appear to state a general prohibition on purging. We recommend that the District include a prohibition against purging, for example by reverting to the language included in section 304 of the previous version of the rule (“No person shall purge. . . unless...”), and revising the exemption in 103.1 as necessary. In addition, any potential relaxation of the purging prohibition contained in the current SIP- approved version of the rule (for example, allowing purging in instances other than when preparing for a pressure test) should be supported by a section 110(l) analysis.

Remedy 6:

The MCAQD corrected this deficiency by revising Section 301.3 to include a prohibition for purging that is at least as stringent as the SIP-approved version. In addition, the MCAQD deleted Section 103.1.

Deficiency 7:

Section 103.4(a) specifies requirements for the opening of hatches or seals on cargo tanks, unless otherwise approved by the Control Officer. As it is not clear what criteria the Control Officer would use to approve alternate procedures, or alternatively, does not require EPA approval in addition to the Control Officer approval, this may represent an inappropriate use of director's discretion. We recommend deleting the last part of the sentence in section 103.4(a), specifying Control Officer approval.

Remedy 7:

The MCAQD corrected this deficiency by revising Section 103.4.a to delete the reference to Control Officer approval.

Deficiency 8:

Section 103.1 exempts the loading of aviation gasoline at airports from the rule's gasoline transfer requirements. As this category is not exempted from other analogous California district rules or the applicable CTGs, this exemption should either be removed, or the District should demonstrate why it is necessary and how it will not interfere with RFP or other requirements of the Act.

Remedy 8:

The MCAQD deleted this exemption from Section 103.

Recommendation 1:

Section 103.2(a) exempts gasoline cargo trucks from vapor tightness requirements if, among other things, the cargo tank never loads at a gasoline terminal. However, SIP approved Rule 352 only exempted those cargo tanks that were loaded at gasoline bulk plants exempted from vapor recovery rules in Rule 351. We recommend narrowing this exemption to align with what was required in the SIP-approved version of the rule. In addition, section 103.2 refers to "the requirements in Sections 103.1(a), (b), or (c)." We suspect this is intended to refer to 103.2(a), (b), or (c).

Revision 1:

The MCAQD revised Section 103.1 to clarify that the exemption is only for gasoline cargo tanks subject to this section and that they can only load at a bulk gasoline plant exempted from vapor loss control by Section 103.4 of Rule 351.

Recommendation 2:

Section 102 indicates the rule applies to gasoline cargo tanks that load gasoline within Maricopa County. However, other provisions of the rule reference loading and unloading of

gasoline (e.g., section 208). For clarity and consistency, we recommend revising section 102 to reference loading and unloading of gasoline.

Revision 2:

The MCAQD revised Section 102 by adding the phrase “or unload” to clarify the rule applies to both loading and unloading of gasoline.

Recommendation 3:

Section 502.2(a)(10) and (b)(12) require the signature of the person conducting the vapor tightness test on the certification check list and decal application. We recommend also requiring the printed name, title, affiliation, and contact information of the person conducting the test.

Revision 3:

The MCAQD added the printed name, title, and contact information of the person conducting the testing.

Recommendation 4:

Section 103.2(a)(5) references 103.1(a) through 103.1(c), however these sections seem to incorrectly refer to cargo tanks loading specific fuel. We recommend evaluating whether section 103.2(a)(5) should reference 103.2(a)(1)-103.2(a)(4), which refer instead to older gasoline cargo trucks in Maricopa county prior to 1988, which only load and unload at specific facilities.

Revision 4:

The MCAQD revised the section to reference the correct section numbers.

Recommendation 5:

Section 504.2 does not clearly indicate which subtest must be performed immediately after passing the pressure test. This provision should be clarified to reference section 501.1(b), instead of 501.1, and to reference the pressure subtest as 501.1(a).

Revision 5:

The MCAQD revised and renumbered Section 504.2 to 505.2 and added the phrase “vapor valve loss test” to clearly indicate which subtest must be performed immediately after passing the pressure test.

Recommendation 6:

Section 504.4 specifies how Reid vapor pressure shall be determined, pursuant to section 203 of the rule. As section 203 does not reference vapor pressure, this reference should likely be revised to section 207, which defines gasoline according to Reid vapor pressure.

Revision 6:

The MCAQD deleted the reference to Section 203.

Recommendation 7:

Section 501.1(a) and (c) reference incorrect sections of EPA Test Method 27. We recommend correcting these references.

Revision 7:

The MCAQD revised Section 501.1.a and c to reference Method 27 as a whole instead of just specific sections of Method 27.

Recommendation 8:

Section 505.4 incorporates by reference ASTM D323-15a. As EPA does not automatically approve the latest ASTM method for use, we recommend referencing the most recent ASTM that is EPA-approved (ASTM D323-06).

Revision 8:

The MCAQD revised and renumbered Section 505.4 to Section 506.9 and referenced the EPA approved ASTM.

Recommendation 9:

Section 206 defines "Excess Gasoline Drainage" as gasoline lost from a "loading hose or vapor hose in the process of connecting or disconnecting a gasoline loading hose." The definition refers to both loading hoses and vapor hoses, but appears to only apply to connecting or disconnecting a loading hose. For clarity and consistency, we recommend revising section 206 to apply to connecting or disconnecting vapor hoses as well.

Revision 9:

The MCAQD revised Section 206 clarifying that the definition of excess gasoline drainage also applies to connecting or disconnecting vapor recovery hoses.

Recommendation 10:

Section 217 specifies vapor tight status is determined by a "suitable detector." We recommend clarifying or defining the term "suitable detector."

Revision 10:

The MCAQD revised the definition to include the specific types of detectors that are to be used to determine a vapor tight condition.

Recommendation 11:

Section 503.3 includes the term "certified operator," however the term is not defined in the rule. We recommend either defining or removing that term. Additionally, section 503.3 is confusing, as it requires a determination of whether a "vapor leak" exists whenever a "vapor leak" is detected. We recommend considering whether the second "vapor leak" reference should instead be "vapor tight condition."

Revision 11:

The MCAQD added new Section 502.3 which does not include the requirement that an operator of an optical gas imaging device be certified and deleted Section 503.3. In addition, the MCAQD revised the section that clarified the reference to a vapor tight condition.

Recommendation 12:

Section 505.1 references 40 CFR 60.18(g) for OGI. We recommend also referencing (h) and (i), as those parts also include relevant requirements when using an OGI.

Revision 12:

MCAQD deleted Section 505.1 and added Section 506.8 to include the references to 40 CFR 60.18(g), (h), and (i) as relevant requirements when using an optical gas imaging device.

Additional revisions were made to address stakeholder and staff comments, which can be discerned in the “strikeout and underline” version of the rule included in this notice and described in all Stakeholder Workshop notices and workshop slides/presentations that are posted on the EROP website.

**5. Studies relied on in the control officer's evaluation of or justification for the rule and where the public may obtain or review the studies, all data underlying the studies, any analysis of the studies and other supporting material.**

United States Environmental Protection Agency Region IX Air Division (2019). Technical Support Document for EPA’s Rulemaking for the Arizona State Implementation Plan Regarding Rule 352, “Gasoline Cargo Tank Testing and Use.”

<https://www.regulations.gov/document?D=EPA-R09-OAR-2019-0493-0003>

U. S. Environmental Protection Agency, “Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems” December, 1978,

[https://www3.epa.gov/airquality/ctg\\_act/197812\\_voc\\_epa450\\_2-78-051\\_tank\\_trucks\\_vcs.pdf](https://www3.epa.gov/airquality/ctg_act/197812_voc_epa450_2-78-051_tank_trucks_vcs.pdf)

**6. An economic, small business and consumer impact statement:**

The following discussion addresses each of the elements required for an economic, small business and consumer impact statement, as prescribed by A.R.S. §§ 41-1055, subsections A, B and C, and 41-1035:

**An identification of the rulemaking, including all of the following:**

This rulemaking revised Rule 352.

**(a) The conduct and its frequency of occurrence that the rule is designed to change.**

The MCAQD revised Rule 352 to remedy deficiencies identified by the EPA. This rulemaking is required to secure approval of Rule 352 into the Arizona SIP. The revisions are explained in more detail in Item #4 of this notice.

**(b) The harm resulting from the conduct the rule is designed to change and the likelihood it will continue to occur if the rule is not changed.**

The MCAQD revised Rule 352 to remedy deficiencies identified by the EPA. This rulemaking is required to secure approval of Rule 352 into the Arizona SIP and avoid

sanctions and imposition of a Federal Implementation Plan (FIP) under the Clean Air Act.

**(c) The estimated change in frequency of the targeted conduct expected from the rule change.**

The MCAQD revised Rule 352 to remedy deficiencies identified by the EPA. This rulemaking is required to secure approval of Rule 352 into the Arizona SIP. As with other rules, the MCAQD will use education, outreach, and other compliance assurance tools to increase the number of people in compliance with the revised rule. The MCAQD strives to achieve the highest possible compliance rates.

**A brief summary of the information included in the economic, small business and consumer impact statement.**

The economic, small business and consumer impact statement addresses each of the elements required for an economic, small business and consumer impact statement, as prescribed by A.R.S. §§ 41-1055, subsections A, B and C, and 41-1035.

**Name and address of agency employees who may be contacted to submit or request additional data on the information included in the economic, small business and consumer impact statement.**

Name: Scott Kahldon or Kimberly Butler  
Maricopa County Air Quality Department  
Planning and Analysis Division

Address: 3800 N Central Avenue, Suite 1400  
Phoenix, AZ 85012

Telephone: (602) 506-6706

Fax: (602) 506-6179

Email: AQPlanning@maricopa.gov

Submit Comments At: <http://maricopa.gov/FormCenter/Regulatory-Outreach-17/Citizen-Comments-94>

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

This rulemaking will directly affect businesses in Maricopa County that operate any gasoline cargo tank which is used to load or unload gasoline within Maricopa County, and to all persons who own, operate, maintain, repair, or test such a gasoline cargo tank.

The revised Rule 352 updates and clarifies existing rule provisions and definitions to reduce confusion and improve understanding and readability. The MCAQD considered the implications of the amendments to the regulated entities, and the implementing agency considers none of the rule revisions have potentially significant economic impacts.

**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.**

This rulemaking should not impose any new costs on the MCAQD or on any other agencies affected by the rulemaking.

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

This rulemaking should not impose any new costs on political subdivisions of this state affected by the rulemaking.

**(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 MCAQD revised Rule 352 to remedy deficiencies identified by the EPA. This rulemaking is required to secure approval of Rule 352 into the Arizona SIP for RACT and avoid sanctions and imposition of a FIP under the Clean Air Act.

The MCAQD 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 MCAQD does not anticipate these rule revisions to have a significant impact on a person's income, revenue, or employment in this state.

**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.**

This rulemaking should have no impact on private or public employment in businesses, agencies, and political subdivisions of this state.

**A statement of the probable impact of the rulemaking on small businesses. The statement shall include:**

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

Small businesses subject to this rulemaking are those in Maricopa County with any gasoline cargo tank which is used to load or unload gasoline within Maricopa County, and to all persons who 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 updates and clarifies existing rule provisions and definitions to reduce confusion and improve understanding and readability. The MCAQD considered the implications of the 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. Establish less stringent compliance or reporting requirements in the rule for small businesses.**

This rulemaking does not impose any significant new compliance requirements on small businesses and does not establish any significant new reporting requirements for small businesses.

**ii. Establish less stringent schedules or deadlines in the rule for compliance or reporting requirements for small businesses.**

This rulemaking does not impose any significant new compliance requirements on small businesses and does not establish any significant new reporting requirements for small businesses.

**iii. Consolidate or simplify the rule's compliance or reporting requirements for small businesses.**

This rulemaking does not impose any significant new compliance requirements on small businesses and does not establish any significant new reporting requirements for small businesses.

**iv. Establish performance standards for small businesses to replace design or operational standards in the rule.**

This rulemaking is unlikely to impose any new design or operational requirements on small businesses.

**v. Exempt small businesses from any or all requirements of the rule.**

This rulemaking does not impose any significant new requirements on small businesses.

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

This rulemaking should not result in any significant costs for private persons and consumers.

**A statement of the probable effect on state revenues.**

The rulemaking will 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, including the monetizing of the costs and benefits for each option and providing the rationale for not using nonselected alternatives.**

The purpose of this rulemaking was to revise Rule 352 to remedy deficiencies identified by the EPA. This rulemaking is required to secure approval of Rule 352 into the State Implementation Plan (SIP) for RACT and avoid sanctions and imposition of a Federal Implementation Plan (FIP) under the Clean Air Act.

**A description of any data on which a rule is based with a detailed explanation of how the data was obtained and why the data is acceptable data.**

Not applicable.

**7. The effective date of the rule:**

The effective date of this rulemaking was November 18, 2020.

**8. Such other matters as are prescribed by statute and that are applicable to the county or to any specific rule or class of rules:**

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 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 requirements are met:

1. The rule, ordinance or regulation is necessary to address a peculiar local condition.
2. There is credible evidence that the rule, ordinance or 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 regulation is equivalent to federal statutes or regulation.
3. Any fee or tax adopted under the rule, ordinance or regulation does not exceed the reasonable costs of the county to issue and administer the permit or plan approval program.

§ 49-112(B)

When authorized by law, a county may adopt rules, ordinances or 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 regulation that does not exceed the reasonable costs of the county to issue and administer that permit or plan approval program.

The MCAQD is in compliance with A.R.S. §§ 49-112(A) and (B). Rule 352 meets A.R.S. § 49-112(A)(1) by demonstrating that the rule is necessary to address a peculiar local condition, in that Maricopa County fails to meet the 2008 8-hour NAAQS for ozone. Rule 352 meets the requirements of A.R.S. § 49-112(A)(2)(b), in that Maricopa County is required by federal law to revise existing rules to address RACT for Gasoline Cargo Tank Testing and Use. As

there is no new fee or tax associated with this rulemaking, the MCAQD also affirms that Rule 352 meets the requirements of A.R.S. § 49-112 (A)(3) and A.R.S § 49-112 (B).

**9. List of all previous notices posted to the Maricopa County EROP website addressing the rule and a concise explanatory statement, as prescribed by A.R.S. § 49-471.07, subsection B:**

**(a) List of all previous notices posted to the Maricopa County EROP website addressing the rule:**

<u>Notice</u>	<u>Date of Posting</u>
Briefing Notification to County Manager	January 26, 2018
Notice of Stakeholder Workshop	April 27, 2018 August 03, 2018 May 5, 2020
Notice of Board of Health Meeting to Initiate Regulatory Change:	July 06, 2018
Notice of Proposed Rulemaking	June 12, 2020
Notice of Board of Health Meeting to Make Recommendation to the Board of Supervisors:	July 13, 2020
Notice of Public Hearing	October 7, 2020

**(b) The following discussion addresses each of the elements required for a concise explanatory statement, as prescribed by A.R.S. § 49-471.07, subsection B:**

**i. A description of any change between the proposed rule or ordinance, the final rule or ordinance or notice of final supplemental rule or ordinance.**

The following changes were made after the Notice of Proposed Rulemaking was published on June 12, 2020.

1. In order to standardize language with Section 103.3, the MCAQD removed the phrase “another agency” from Section 401.4b(2), and replaced it with the phrase “the gasoline cargo tank testing company.” This clarification was added and reads as follows:

Section 401.4b(2): If applicable, documentation from the gasoline cargo tank testing company to the Control Officer that attests to the vapor integrity of the gasoline cargo tank as described in Section 103.3 (Alternative Demonstration of Maricopa County Vapor Tightness Test Compliance).

2. The MCAQD deleted “vapor recovery system” in Section 302.2.b and replaced it with “vapor collection/processing system” to make the requirement more specific. The section reads as follows:

Section 302.2.b: Connect an additional vapor recovery hose before connecting any additional gasoline loading hose, unless an assisted vapor collection/processing system is serving the vapor recovery hose that is already connected.

3. The MCAQD deleted “vapor return system” in Section 302.3.b and replaced it with “vapor collection/processing system” to make the requirement more specific. The section reads as follows:

Section 302.3.b: Connect an additional vapor recovery hose before connecting any additional gasoline loading hose, unless an assisted vapor collection/processing system is serving the vapor recovery hose that is already connected.

4. The MCAQD deleted the title “vapor recovery system having remote vapor return lines” in Section 302.4.b(5) and added the word “do” at the beginning of the sentence to clarify the requirement. The section reads as follows:

Section 302.4.b(5): Do not connect more than one gasoline loading hose to the gasoline cargo tank 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.

5. The MCAQD added “storing, transporting, or unloading” in Section 301.1 to further clarify the provision and more closely match language in the 2016 version of rule 352. This section reads as follows:

Section 301.1: Gasoline Cargo Tank Integrity-Maricopa County Vapor Tightness Test: A gasoline cargo tank shall pass the Maricopa County Vapor Tightness Test, and meet the requirements of section 301.2, before storing, transporting, loading or unloading gasoline within Maricopa County, unless exempted by Section 103.1 (Maricopa County Vapor Tightness Test and Maricopa County Vapor Tightness Certification Decal Exemption for Non Railcars), 103.2 (Maricopa County Vapor Tightness Test and Maricopa County Vapor Tightness Certification Decal Exemption for Railcars), or Section 103.3 (Alternative Demonstration of Maricopa County Vapor Tightness Test Compliance).

**ii. A summary of the comments and arguments for and against the notice and the county’s response to the comments and arguments.**

The following discussion evaluates the arguments for and against the rule and includes responses to comments received on the rule or the preamble in the Notice of Proposed Rulemaking. The MCAQD received written comments from one stakeholder. The comment was reviewed and evaluated by the MCAQD.

**Comment #1:** [Our Company] supports the proposed rule changes for 350, 351, 352, and 353. [Our Company] would also like to recommend that the rules include a definition for "Mobil Storage Tank" to address the use of Mobil fueling stations that are on the order of a few thousand gallons in capacity.

**Response #1:** The MCAQD thanks you for your support of the proposed rule changes to Rules 350, 351, 352 and 353. Regarding your comment about adding a definition of “mobile storage tank”, the MCAQD considered your comment and determined the addition of this term to the rules was not necessary. Having said that, the MCAQD revised the definition of “stationary gasoline storage tank” in Rule 353, and added the same revised definition to Rule 352, to further clarify which stationary gasoline storage tanks are regulated under the rules. The phrase: “Any such tank that

is connected to permanent piping and not moved to another service location within any twelve (12)-month period will be considered a stationary gasoline storage tank” was added to the definition. The MCAQD believes the addition of this phrase will help stakeholders understand which gasoline storage tanks are regulated under this rule. A similar revision to the definition of “stationary gasoline storage tank” was not made to rule 350 because gasoline is not regulated under Rule 350 and was not made to Rule 351 because it regulates the storage of large quantities of gasoline.

## **EXACT WORDING OF THE RULE**

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

#### **RULE 352 GASOLINE CARGO TANK TESTING AND USE**

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

**RULE 352  
GASOLINE CARGO TANK TESTING AND USE**

**SECTION 100 – GENERAL**

- 101 PURPOSE:** To limit emissions of volatile organic compounds (VOC) from gasoline cargo tanks.
- 102 APPLICABILITY:** This rule applies to any gasoline cargo tank which is used to load or unload gasoline within Maricopa County, and to all persons who own, operate, maintain, repair, or test such a 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).~~
- 103.2 103.1** 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. **Maricopa County Vapor Tightness Test and Maricopa County Vapor Tightness Certification Decal Exemption for Non Railcars:** The owner or operator of a gasoline cargo tank is exempt from Section 301.1 (Gasoline Cargo Tank Integrity – Maricopa County Vapor Tightness Test) and Section 301.2 (Maricopa County Vapor Tightness Certification Decal), if all of the following requirements are met:
- ~~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:~~
    - (+) **a.** The gasoline cargo tank was placed in operation before July 13, 1988, ~~and~~
    - (+) **b.** The gasoline cargo tank transported gasoline within Maricopa County before January 1, 1998, ~~and~~
    - (+) **c.** The gasoline cargo tank ~~never loads at a gasoline terminal; and~~ only loads at a bulk gasoline plant exempted from vapor loss control by Section 103.4 of Rule 351.
    - (+) **d.** The gasoline cargo tank serves only farm tanks or those non-resale gasoline dispensing facilities operations that meet the requirements in section 103.2.a of

~~Rule 353, having a yearly throughput not exceeding 120,000 gallons of gasoline, verified by monthly records pursuant to Section 500 of this rule; and~~

- ~~(5) e.~~ 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(e) of this rule; and Sections 103.1.a through 103.1.d.~~
- ~~(6) f.~~ 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, a gasoline dispensing facility owner or operator, or the Control Officer. Maricopa County will not issue a ~~decals~~ Maricopa County Vapor Tightness Certification Decal to any gasoline cargo tank claiming this exemption.
- ~~g.~~ The owner or operator of a gasoline cargo tank meeting the requirements in Section 103.1.a through Section 103.1.f, shall comply with the following sections:
  - ~~(1) Section 302.1 (General Requirements for the Loading of Gasoline) except Section 302.1.b(2).~~
  - ~~(2) Section 502 (Identifying a Potential Vapor Leak).~~
  - ~~(3) Section 504.1 (Recordkeeping and Reporting Requirements).~~
- ~~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.~~
- ~~e.~~ 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.~~

**103.2 Maricopa County Vapor Tightness Test and Maricopa County Vapor Tightness Certification Decal Exemption For Railcars:** The owner or operator of a gasoline cargo tank (railcar) is exempt from Section 301.1 (Gasoline Cargo Tank Integrity – Maricopa County Vapor Tightness Test) and Section 301.2 (Maricopa County Vapor Tightness Certification Decal), if the gasoline cargo tank (railcar) is currently certified in accordance with 40 CFR part 63.11092.

**103.3 Alternative Demonstration of Maricopa County Vapor Tightness Test Compliance:** A gasoline cargo tank is exempt from Section 301.1 (Gasoline Cargo Tank Integrity – Maricopa County Vapor Tightness Test) and is eligible to obtain a Maricopa County Vapor Tightness Certification Decal if the following two (2) conditions are met:

- a. The owner or operator of a gasoline cargo tank provides documentation from the gasoline cargo tank testing company to the Control Officer that certifies that the gasoline cargo tank was tested and verified vapor tight using test methods at least as stringent as those in Section 501.1 (Maricopa County Vapor Tightness Test).
- b. The owner or operator of a gasoline cargo tank complies with Section 401.4 (Registration).

**103.4 Opening Hatches, Vent Valves, or Other Vapor Sealing Devices on Gasoline Cargo Tanks:**

- a. When VOC vapors are present within a gasoline cargo tank, owners, 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: while performing operations required by these Maricopa County Air Pollution Control Regulations or by other statutory entities, but shall be restricted as follows:
  - (1) Wait at least ~~3 minutes~~ three (3) minutes before opening its hatch a hatch, vent valve, or other vapor seal sealing device on a gasoline cargo tank after:
    - (a) When The loading of gasoline is complete.
    - (b) After a The gasoline cargo tank has come to a complete stop.
  - (2) Reclose hatch or other sealing device within ~~3 minutes~~ three (3) minutes of completing the required procedures.
  - (3) Limit wind speed at opened hatch, vent valve, or other opened vapor sealing device to not more than ~~3 mph (1.34 m/sec); three miles per hour (3 mph),~~ 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. A hatch, vent valve, or other vapor sealing device:
  - (1) May be opened to avoid an unsafe operating condition; and
  - (2) Shall be closed once the unsafe operating condition has been resolved.

- e. **103.5 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 and Regulations, the definitions in this rule take precedence.

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

- ~~202~~ **201** **BULK GASOLINE PLANT:** Any gasoline storage and ~~distribution~~ gasoline loading facility that meets all of the following:
- ~~202.1~~ **201.1** Loads gasoline from a pipeline, ~~rail~~ railcar, or gasoline cargo tank into a stationary gasoline storage tank;
- ~~202.2~~ **201.2** Loads gasoline from the stationary gasoline storage tank into gasoline cargo tanks for transport to gasoline dispensing ~~facilities~~ facility (GDF); ~~and~~
- ~~202.3~~ **201.3** 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 and any other person. [40 CFR § 63.11100]
- ~~203~~ **202** **BULK GASOLINE TERMINAL:** Any gasoline storage and loading facility that meets all of the following:
- ~~203.1~~ **202.1** Loads gasoline from a pipeline, ~~rail~~ railcar, or gasoline cargo tank into a stationary gasoline storage tank;
- ~~203.2~~ **202.2** Loads gasoline from the stationary gasoline storage tank into gasoline cargo tanks for transport to ~~gasoline dispensing facilities~~ a GDF or a bulk gasoline plant; ~~and~~
- ~~203.3~~ **202.3** 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~~ Control Officer and any other person. [40 CFR § 63.11100]
- ~~204~~ **203** **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.
- 204** **CONTAINER:** A portable unit in which a material can be stored, transported, treated, disposed of, or otherwise handled. Examples of containers include, but are not limited to, drums and portable cargo containers known as “portable tanks” or “totes.” [40 CFR § 63.2406]
- 205** **DUAL-POINT VAPOR BALANCE SYSTEM:** A type of vapor balance system in which the stationary gasoline storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.
- 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 loading 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 pipe’s spill containment receptacle. The quantity of gasoline that drains out of the end of a gasoline loading hose or vapor recovery hose during the process of connecting or disconnecting that is one or more of the following:

**206.1** More than 0.34 fluid ounces or two teaspoonsful (2 tsp) of liquid gasoline lost from the end of a gasoline loading hose or a vapor recovery hose. This does not include drainage into a fill pipe's spill containment receptacle.

**206.2** Wets any area(s) on the ground having an aggregate area greater than 113 square inches (113 in<sup>2</sup>).

**206.3** The perimeter of which would encompass a circle of twelve inches (12") diameter or larger. This does not include drainage into a fill pipe's spill containment receptacle.

~~207~~ ~~GASOLINE: Any petroleum distillate, 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 505 of this rule, and which is used as a fuel for internal combustion engines.~~

~~208~~ **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. [40 CFR §§ 63.11100 and 63.11132] This includes any gasoline loading hose(s) that hoses the gasoline cargo tank carries through which deliveries must be made the loading of gasoline occurs.

~~209~~ **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. [40 CFR § 63.11132] This includes all stationary gasoline storage tanks and associated equipment located on one or more contiguous or adjacent properties under the control of the same owner or operator under common control.

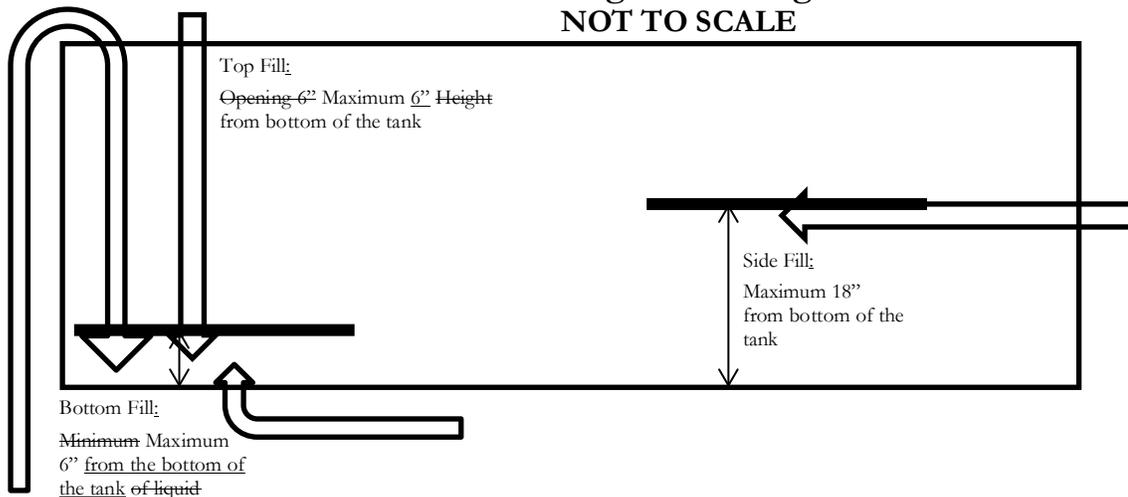
~~210~~ **209** **GASOLINE VAPORS:** Vapors; originating from liquid gasoline; that are usually found in mixture with air. Included are any droplets of liquid gasoline or gasoline-vapor condensate that are entrained by the vapor.

~~211~~ **210** **LEAK FREE:** ~~Having no single liquid gasoline leak of more than 3 drops per minute from a gasoline 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. A condition in which there is no liquid gasoline escape or seepage of more than three (3) drops per minute from gasoline storage, handling, or ancillary equipment, including, but not limited to, seepage and escapes from above ground fittings, gasoline loading hose(s), and vapor recovery hose(s). This does not include the disconnecting or connecting of either a gasoline loading hose from a gasoline fill pipe or a vapor recovery hose from a vapor pipe.~~

~~212~~ **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 Section 501 (Maricopa County Gasoline Cargo Tank Vapor Tightness Testing Requirements). ~~of this rule.~~

- 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.
- 213 **SPILL CONTAINMENT RECEPTACLE:** An enclosed container installed around the fill pipe or vapor recovery connection point designed to contain drips and spills of gasoline that can occur during delivery or during the disconnection of a gasoline loading hose from a gasoline fill line or a vapor recovery hose from a vapor line.
- 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 loading of gasoline and also by the unloading of gasoline into a vapor laden gasoline cargo tank.
- 214 **STATIONARY GASOLINE STORAGE TANK:** Any stationary tank or reservoir used to store, but not transport gasoline. Any such tank that is connected to permanent piping and not moved to another service location within any twelve (12)-month period will be considered a stationary gasoline storage tank.
- 215 **SUBMERGED FILL:** Any discharge fill pipe or nozzle extension which meets the applicable specification as follows: which meets at least one of the specifications below:
- 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. The end of the fill pipe or nozzle extension is totally submerged when the liquid level is six inches (6") from the bottom of the stationary gasoline storage tank.
- 215.2 **Side-Fill:** At its highest point within the gasoline 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) The end of the discharge pipe or nozzle extension is totally submerged when the liquid level is eighteen inches (18") from the bottom of the stationary gasoline storage tank. A side-fill pipe that is greater than 18" from the bottom of the stationary storage tank shall remain submerged at all times.

**Submerged Fill Diagram**  
NOT TO SCALE



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

217 **THROUGHPUT:** The amount of gasoline received.

218 **VAPOR BALANCE SYSTEM:** Vapor loss control equipment that collects gasoline vapors displaced from the loading of gasoline into one of the following:

218.1 A gasoline cargo tank and routes the collected vapors to a stationary gasoline storage tank; or

218.2 A stationary gasoline storage tank and routes the collected vapors to the gasoline cargo tank from which the storage tank is loaded; or

218.3 A gasoline cargo tank and routes the collected vapors to the gasoline cargo tank from which the gasoline cargo tank is loaded.

219 **VAPOR COLLECTION/PROCESSING SYSTEM:** A vapor loss control device consisting of a vapor gathering subsystem capable of collecting the gasoline vapors plus a second subsystem capable of processing such vapors and gases, reducing the inlet concentration of VOCs by at least 95 percent by weight.

220 **VAPOR LOSS CONTROL EQUIPMENT:** Any piping, vapor recovery hose(s), equipment, or devices which are used to collect, store, and or process VOC vapors at a bulk gasoline plant, bulk gasoline terminal, gasoline dispensing facility, or any other operation handling gasoline.

217 221 **VAPOR TIGHT:** A condition in which ~~a suitable detector~~ an organic vapor analyzer (OVA) at the site of (potential) leakage of vapor shows less than 10,000 ppmv when calibrated with methane ~~or the detector~~ or a combustable gas detector (CGD) shows less than ~~4/5 one-fifth~~ one-fifth lower explosive limit ~~(LEL)~~ (1/5 LEL) when calibrated with a gas specified by the manufacturer and ~~is~~ is used according to the manufacturer's instructions.

## SECTION 300 – STANDARDS

### 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 403 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 GASOLINE CARGO TANK REQUIREMENTS:**

- 301.1 Gasoline Cargo Tank Integrity-Maricopa County Vapor Tightness Test:** A gasoline cargo tank shall pass the Maricopa County Vapor Tightness Test, and meet the requirements of section 301.2, before storing, transporting, loading or unloading gasoline within Maricopa County, unless exempted by Section 103.1 (Maricopa County Vapor Tightness Test and Maricopa County Vapor Tightness Certification Decal Exemption for Non Railcars), 103.2 (Maricopa County Vapor Tightness Test and Maricopa County Vapor Tightness Certification Decal Exemption for Railcars), or Section 103.3 (Alternative Demonstration of Maricopa County Vapor Tightness Test Compliance).
- a.** Scheduling and notification of a Maricopa County Vapor Tightness Test shall be done in accordance with Section 401.1 (Notification of Required Testing).
- b.** The Maricopa County Vapor Tightness Test shall be performed according to Section 501.1 (Maricopa County Vapor Tightness Test).
- c.** Results of the Maricopa County Vapor Tightness Test shall be recorded according to Section 504.2 (Recordkeeping and Reporting Requirements).
- 301.2 Maricopa County Vapor Tightness Certification Decal:** Unless exempted in Section 103.1 (Maricopa County Vapor Tightness Test and Maricopa County Vapor Tightness Certification Decal Exemption for Non Railcars) or Section 103.2

(Maricopa County Vapor Tightness Test and Maricopa County Vapor Tightness Certification Decal Exemption for Railcars), an owner or operator of a gasoline cargo tank shall:

- a. Comply with Section 401.4 (Registration) for registration requirements to obtain a valid Maricopa County Vapor Tightness Certification Decal after either:
  - (1) Passing the Maricopa County Vapor Tightness Test as performed according to Section 501.1 (Maricopa County Vapor Tightness Test).
  - (2) Complying with Section 103.3 (Alternative Demonstration of Maricopa County Vapor Tightness Test Compliance).
- b. Clearly display a valid Maricopa County Vapor Tightness Certification Decal that is permanently mounted near the front right side (passenger) of the gasoline cargo tank.

**301.3 Purging Prohibited:**

- a. An owner or operator is allowed to purge gasoline vapors from a gasoline cargo tank if the following conditions are met: No person shall purge gasoline vapors into the atmosphere from a gasoline cargo tank unless the following two (2) conditions are met:
  - (1) VOC emissions shall be reduced at least 90% by weight, as determined by one or more of the test methods listed in Section 506 (Test Methods Incorporated by Reference), including capture and processing, by a control device having a Maricopa County Permit to Operate and/or Construct. 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.

- e. ~~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.~~
- e. ~~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.~~
- j. ~~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.~~

### **302 LOADING OF GASOLINE:**

**302.1 General Requirements for the Loading of Gasoline:** The owner or operator of a gasoline cargo tank shall have the responsibility to:

- a. Ensure all parts of the gasoline loading process are observed.
- b. Maintain gasoline cargo tanks and equipment associated with the loading and unloading of the gasoline to be:
  - (1) Leak free.
  - (2) Vapor tight.
  - (3) In good working order.
- c. Properly connect/disconnect:
  - (1) The vapor recovery hose to prevent excess gasoline drainage.
  - (2) The gasoline loading hose to prevent excess gasoline drainage.
  - (3) Use a bucket or other effective capture device to catch any gasoline dripping during the connection or disconnection of the gasoline loading hose and the vapor recovery hose.
- d. Load gasoline:
  - (1) Into stationary gasoline storage tanks with a capacity of more than 250 gallons using submerged fill. Where because of government regulation, including, but not limited to, Fire Department codes, such a permanent submerged fill pipe cannot be installed, a nozzle extension that reaches within six inches (6") of the tank bottom shall be used to fill the tank.
  - (2) Discontinue loading operation if a liquid leak or vapor leak is observed.
- e. Minimize gasoline spills [40 CFR § 63.11116(a)(1)] by:
  - (1) Disconnecting a gasoline loading hose or a vapor recovery hose in such a way as to prevent excess gasoline drainage from escaping from the hose in one connect/disconnect cycle.
  - (2) Collecting and containing any gasoline that escapes, spills, or leaks in a manner that will prevent evaporation into the atmosphere.
- f. Clean up gasoline spills as expeditiously as practicable. [40 CFR § 63.11116(a)(2)] 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.

- g. Cover all open gasoline containers when not in use. [40 CFR § 63.1116(a)(3)]  
Any gasoline that escapes, spills, or leaks shall be collected and contained in a manner that will prevent evaporation into the atmosphere.
- h. Minimize gasoline sent to waste collection systems that collect and transport gasoline to reclamation and recycling equipment such as an oil/water separator. [40 CFR § 63.1116(a)(4)]
- i. Properly dispose of any VOC - containing material.
- j. Prevent:
  - (1) Overfill.
  - (2) Excess gasoline drainage.

**302.2 Loading of Gasoline at a Bulk Gasoline Plant:** The owner or operator of a gasoline cargo tank shall:

- a. Ensure the gasoline cargo tank is properly connected to either:
  - (1) A vapor balance system; or
  - (2) A vapor collection/processing system.
- b. Connect an additional vapor recovery hose before connecting any additional gasoline loading hose, unless an assisted vapor collection/processing system is serving the vapor recovery hose that is already connected.

**302.3 Loading of Gasoline at a Bulk Gasoline Terminal:** The owner or operator of a gasoline cargo tank shall:

- a. Ensure the gasoline cargo tank is properly connected to a vapor collection/processing system.
- b. Connect an additional vapor recovery hose before connecting any additional gasoline loading hose, unless an assisted vapor collection/processing system is serving the vapor recovery hose that is already connected.

**302.4 Loading of Gasoline into a Stationary Gasoline Storage Tank at any GDF:** The owner or operator of a gasoline cargo tank shall:

- a. Coaxial vapor balance system:
  - (1) Ensure any locked cap can be removed.
  - (2) Verify the stationary gasoline storage tank does not have any broken or damaged fitting that prevent the correct coaxial connection.
  - (3) Not remove the fill cap of a fill pipe unless every other fill pipe either has a fill cap fastened in place or a gasoline loading hose connecting it to the gasoline cargo tank.
- b. Dual-point vapor balance system:
  - (1) Ensure the stationary gasoline storage tank is equipped with a vapor return poppetted valve.
  - (2) Ensure any locked cap can be removed.

- (3) Verify the stationary gasoline storage tank does not have any broken or damaged fitting that prevent the correct connection of a gasoline loading hose or a vapor recovery hose.
- (4) Ensure a vapor recovery hose is connected from the gasoline cargo tank to a vapor return-line serving the stationary gasoline storage tank prior to the connection of the gasoline loading hose.
- (5) Do not connect more than one gasoline loading hose to the gasoline cargo tank 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.
- (6) Not remove the fill cap of a fill pipe unless every other fill pipe either has a fill cap fastened in place or a gasoline loading hose connecting it to the gasoline cargo tank.
- (7) Not simultaneously have more than one gasoline loading hose connected, unless each gasoline 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.
- (8) Thoroughly drain the gasoline loading hose and the vapor recovery hose into the stationary gasoline storage tank prior to disconnecting any fittings.
- (9) Disconnect a gasoline loading hose from a stationary gasoline storage tank before disconnecting the vapor recovery hose.

## SECTION 400 – ADMINISTRATIVE REQUIREMENTS

401 ~~MARICOPA COUNTY (MC) VAPOR TIGHTNESS TEST: Testing required by Section 301.2 of this rule, shall be conducted by the owner or operator of the gasoline cargo tank. 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 gasoline cargo tank being tested to meet requirements of 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.~~
- b. ~~Provide an estimated start time that is no more than 1 hour prior to actual gasoline cargo tank vapor tightness testing start time.~~
- e. ~~Except for weekend testing, the Control Officer shall be notified no more than 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 301.2 of this rule requirements;~~

~~except if the Control Officer gives specific, advance permission for a particular occasion.~~

**401** **MARICOPA COUNTY VAPOR TIGHTNESS TEST:** The owner, operator, or tester of a gasoline cargo tank being tested to meet requirements of Section 301.1 of this rule shall:

**401.1 Notification of Required Testing:**

- a. Notify the Control Officer:
  - (1) During normal business hours, 8 a.m. to 5 p.m.
  - (2) At least four (4) hours prior to gasoline cargo tank vapor tightness testing.
  - (3) No more than 72 hours prior to gasoline cargo tank vapor tightness testing.
  - (4) **Weekend Testing:** Prior to 2 PM on Friday (or prior to 2 PM on the last business day before testing).
  - (5) **Testing Between 9 P.M. and 5 A.M.:** Any testing that is performed in the eight (8) hour period between 9 p.m. and 5 a.m. is not valid for purposes of satisfying Section 301.1 (Gasoline Cargo Tank Integrity – Maricopa County Vapor Tightness Test) requirements, except if the Control Officer gives specific, advanced written permission for a particular occasion.
- b. Provide an estimated start time that is no more than one (1) hour prior to actual gasoline cargo tank vapor tightness testing start time.
- c. Provide the location of where the testing will occur.

**401.2 Conduct the Vapor Tightness Test:**

- a. Between the hours of 5 a.m. and 9 p.m. unless approved by the Control Officer per Section 401.1.a(5).
- b. Per the vapor tightness testing requirements in Section 501.1 (Maricopa County Vapor Tightness Test).

**401.3 Vapor Tightness Testing – Availability to the Control Officer:** The Control Officer shall, at their discretion, observe the vapor tightness testing.

~~401.2~~ **401.4 Registration:** To obtain a Maricopa County Vapor Tightness Certification ~~decal~~ Decal, the following information shall be submitted to the Control Officer for each gasoline cargo tank that passes the required gasoline cargo tank vapor tightness test demonstrating the vapor integrity of the gasoline cargo tank:

- a. A completed “Maricopa County Vapor Tightness Certification Decal Application” (application) that includes, at a minimum, all of the information required by ~~Section 502.2 of this rule~~ Section 504.2.
- b. A completed copy of:
  - (1) ~~the~~ The “Maricopa County Air Quality Department Gasoline Cargo Tank Vapor Tightness Certification Check List” (checklist), and
  - (2) If applicable, documentation from the gasoline cargo tank testing company to the Control Officer that attests to the vapor integrity of the gasoline cargo

tank as described in Section 103.3 (Alternative Demonstration of Maricopa County Vapor Tightness Test Compliance).

- c. The annual fee remittance as listed in Rule 280 (Fees).
- d. Upon receipt of the completed application, checklist, and fee remittance, a Maricopa County Vapor Tightness Certification ~~decal~~ Decal will be issued by the Control Officer.

**401.3 401.5 Expiration:**

- a. ~~A Maricopa County Vapor Tightness Certification decal that is issued to a 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 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.~~
- a. For a gasoline cargo tank that passed the Maricopa County Vapor Tightness Test, the certification of vapor tightness shall expire on the date indicated on the vapor tightness certification decal.
- b. For a gasoline cargo tank that has passed the Maricopa County Vapor Tightness Test:
  - (1) In the 4-month period beginning March 1 and ending June 30, the certification of vapor tightness shall expire at 11:59 PM local time on June 30 of the following year, as indicated on the decal.
  - (2) On or after July 1 through December 31, the certification of vapor tightness shall expire at 11:59 PM local time on June 30 of the following year, as indicated on the decal.
  - (3) On or after January 1, but prior to March 1, the certification of vapor tightness shall expire at 11:59 PM local time on June 30 of the current year, as indicated on the decal.

**401.4 401.6 Lost, Defaced or Destroyed Maricopa County Vapor Tightness Certification Decal:**

- a. An owner or operator shall notify the Control Officer immediately if a valid Maricopa County Vapor Tightness Certification ~~decal~~ Decal is lost, defaced, or destroyed.
- b. The Control Officer may require a demonstration of need for decal replacement.
- c. If Rule 280 (Fees) so provides, the Control Officer may charge a fee for ~~reissue or substitute issue of a lost, defaced, or destroyed Maricopa County Vapor Tightness Certification decal~~, a replacement decal [Rule 280, Section 307] if the Control Officer determines that the ~~Department~~ MCAQD is not at fault.

**402 INSTALLATION OF CONTROL DEVICE:** An owner or operator of a gasoline cargo tank testing ~~operation company~~ who chooses to comply with ~~the Section 301.3~~ Section 301.3

~~(Purging Prohibited) of this rule purging provisions through the use of a control device shall; submit an application for a Maricopa County Air Pollution Control Permit and an Operation and Maintenance Plan for the control device.~~

**402.1** Submit an application for a Maricopa County Air Pollution Control Permit.

**402.2** Properly:

- a. Install the control device.
- b. Operate the control device.
- c. Maintain the control device.

**402.3** Submit an Operation and Maintenance Plan (O&M) for the control device.

**402.4** Use the applicable test methods as incorporated by reference in Section 506 (Test Methods Incorporated by Reference), to determine compliance with Section 301.3.a.

## SECTION 500 – RECORDS AND MONITORING

### 501 ~~MARICOPA COUNTY (MC)~~ **MARICOPA COUNTY GASOLINE CARGO TANK VAPOR TIGHTNESS TESTING REQUIREMENT REQUIREMENTS:**

**501.1** Maricopa County Vapor Tightness Test: The following three subtests shall be used to determine the vapor tightness of a gasoline cargo tank. Each gasoline cargo tank shall ~~passes~~ pass all of the vapor tightness tests in the listed order of Section 501.1 ~~of this rule~~, using the same vapor recovery 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 recovery hose.

- a. **Pressure Test:** ~~Lose no more than 4.0 inch (25.4 mm) of water column in 5.0 minutes; one inch (1") of water column in five (5) minutes, when pressurized to a gauge pressure of 18 inches (45.7 cm) of water~~ eighteen inches (18") of water column in two (2) consecutive runs, 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 according to procedures in EPA Method 27, as incorporated by reference in Section 506 (Test Methods Incorporated By Reference).
- 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 five inches (5") of water column in five (5) minutes, measured in the vapor system after the gasoline cargo tank compartments are first collectively pressurized to a water gauge pressure of eighteen inches (18") of water column and then the vapor valves are closed.~~
- c. **Vacuum Test:** ~~Gain no more than 4.0 inch (25.4 mm) of water column in 5.0 one inch (1") of water column in five (5) minutes, when initially evacuated to a water gauge pressure of 6 inches (15.2 cm) of six inches (6") of water column, in two (2) 2 consecutive runs, per subsections 5.3.1 through 5.3.7 of according to~~

procedures in EPA Method 27, as incorporated by reference in Section 506 (Test Methods Incorporated By Reference). Section 505 of this rule.

- d. Pressure Instability:** A test is ~~invalidated~~ invalid if during the positive pressure test or the vapor valve loss test, more than ~~½ inch~~ one-half inch (+1/2") of water column ~~pressure~~ is gained. A test is invalid if during the vacuum test the vacuum is increased by more than minus ~~½ inch~~ one-half inch (-1/2") of water column.

~~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.~~

**501.2** If a gasoline cargo tank does not pass all the tests listed in Section 501.1, the gasoline cargo tank shall be repaired, then retested. A gasoline cargo tank being retested shall pass all tests as listed in Section 501.1 in the same testing period within fifteen (15) days of initial testing.

**502** **IDENTIFYING A POTENTIAL VAPOR LEAK:** An owner or operator or Control Officer shall follow one or more of the test procedures in Section 502 to identify a potential vapor leak. If a potential vapor leak is detected, refer to Section 503 (Determining Vapor Tight Status) to determine the vapor tight status.

**502.1** For the purposes of identifying a potential vapor leak, the use of sight, sound, or smell are acceptable.

**502.2** 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 vapor leak site to determine if any bubbles are formed.
- (1)** If no bubbles are observed, the source is presumed to have no detectable vapor leak.
- (2)** If any bubbles are observed, the instrument techniques of Section 503 (Determining Vapor Tight Status) shall be used to verify if a vapor leak exists.

**502.3** **Optical Gas Imaging:** An operator of a calibrated optical gas imaging device may use an optical gas imaging instrument to identify a potential vapor leak.

**502.4** **Combustible Gas Detector (CGD) Or Organic Vapor Analyzer (OVA):** An operator of a calibrated CGD or an OVA may use the test procedure described in Section 503 (Determining Vapor Tight Status) to identify a potential vapor leak.

**503** **DETERMINING VAPOR TIGHT STATUS:**

**503.1** **Combustible Gas Detector (CGD) or Organic Vapor Analyzer (OVA) - Test Procedure:** An owner or operator or the Control Officer shall follow the test

procedure below to determine the vapor tight status of a gasoline cargo tank. A CGD or an OVA meeting the specifications and performance criteria contained in EPA Method 21 and this section shall be used to determine vapor tight status.

- a. **Calibration:** Within four (4) hours prior to monitoring, the CGD or OVA shall be properly calibrated for a 20 percent lower explosive limit (20% LEL) response or to 10,000 ppmv with methane.
- b. **Probe Distance:** The probe inlet shall be:
  - (1) At the surface of the potential leak source when searching for leaks.
  - (2) At the surface of the leak source when the highest detector reading is being determined for a discovered leak.
  - (3) At the closest practical probe distance when the probe is either obstructed from moving on the surface of an actual or potential leak source, or if the source is a rotating shaft.
- c. **Probe Movement:** The probe shall be moved slowly, not faster than 1.6 inches per second (1.6"/sec). 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. A determination of vapor tight status shall be valid only when wind speed in the space being monitored is five miles per hour (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.

502 **504** **RECORDKEEPING AND REPORTING REQUIREMENTS:** The owner or operator of a gasoline cargo tank subject to this rule shall:

~~502.1 The owner or operator of a gasoline 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, 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.~~

**504.1** Maintain the records and information required by this rule. The records shall be:

- a. Legible.
- b. Signed by the person performing the activity.
- c. Retained for at least five (5) years.

d. Provided to the Control Officer upon verbal or written request, within a reasonable time. If the Control Officer is at the site where requested records are kept, records shall be provided without delay.

502.2 **504.2** The records of the gasoline cargo tank vapor tightness certification testing required by Section ~~301.2 of this rule~~ 301.1 (Gasoline Cargo Tank Integrity-Maricopa County Vapor Tightness Test), ~~must~~ shall be recorded in both of the following documents: “Maricopa County Vapor Tightness Certification Decal Application” and the “Maricopa County Air Quality Department Gasoline Cargo Tank Vapor Tightness 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~~ two (2) documents ~~follow~~ are:

a. For the “Maricopa County Vapor Tightness Certification Decal Application”:  
include the following information:

(1) Owner's name and address.

(2) The manufacturer’s gasoline cargo tank ~~serial~~ vehicle identification number (VIN).

(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.

(7) **Pressure Test:** For the pressure test, ~~two (2) readings: the change in pressure (in inches of water) for Run 1 and the change in pressure for Run 2.~~ record the following two (2) readings:

(a) Change in pressure (in inches of water column) for Run 1.

(b) Change in pressure (in inches of water column) for Run 2.

(8) **Vapor Valve Loss Test:** For the vapor\_-valve loss test ~~one (1) reading:~~ record the total change in pressure during the test.

(9) **Vacuum Test:** For the vacuum test, ~~two (2) readings: the total change in vacuum during Run 1 and the same for Run 2.~~ record the following two (2) readings:

(a) Change in vacuum (in inches of water column) for Run 1.

(b) Change in vacuum (in inches of water column) for Run 2.

(10) Name of the gasoline cargo tank testing company.

(+0) (11) The printed name and signature of the person conducting the vapor tightness test.

(12) Title of the person conducting the vapor tightness test.

(13) Contact information of the person or company conducting the vapor tightness test.

- b. The “Maricopa County Air Quality Department Gasoline Cargo Tank Vapor Tightness Certification Check List” shall contain at least the following information:
- (1) Owner's name and address.
  - (2) Manufacturer’s gasoline cargo tank vehicle identification number (VIN).
  - (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 column.
    - (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 column.
    - (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)~~ (13) Name of the gasoline cargo tank testing company.
  - ~~(12)~~ (13) The printed name and signature of the person conducting the vapor tightness test.
  - (14) Title of the person conducting the vapor tightness test.

(15) Contact information of the person or company conducting the vapor tightness test.

503 MONITORING FOR LEAKS: The Control Officer may at any time monitor a gasoline cargo tank, including the vapor collection system, for vapor and liquid leaks to ascertain if it is vapor tight and leak free. 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.~~

## 504 **505 COMPLIANCE**

504.1 **505.1 Pressure and Vacuum Tests:** The tests to determine compliance with Section 501.1 (Maricopa County Vapor Tightness Test) ~~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.

504.2 **505.2 Test of Internal Vapor Valves:** ~~The tests to determine compliance with Section 501.1 of this rule~~ The vapor valve loss test shall be performed immediately after successfully passing the pressure subtest, without performing any intervening maintenance or repair on the vapor valves.

504.3 **505.3** Confirmation of a vapor leak detected on a gasoline cargo tank during loading of gasoline shall be determined by properly deploying a pressure tap adapter that conforms to Method 27 provisions, and demonstrating the leak according to Section 503 (Determining Vapor Tight Status) ~~of this rule~~, while the pressure is less than ~~20~~ twenty inches (20") of water column.

504.4 **505.4** Pursuant to ~~Section 203~~, Reid vapor pressure shall be determined using ~~ASTM D323~~ —15a ASTM D323 06: Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method).

505 **506 TEST METHODS INCORPORATED BY REFERENCE:** 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 EPA 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.

~~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.~~

**506.1** EPA Method 2A – Direct Measurement of Gas Volume Through Pipes and Small Ducts.

**506.2** EPA Method 2B – Determination of Exhaust Gas Volume Flow Rate from Gasoline Vapor Incinerators.

**506.3** EPA Method 18 – Measurement of Gaseous Organic Compound Emissions by Gas Chromatography.

- 505.2 **506.4** EPA Method 21 – Determination of Volatile Organic Compound Leaks.
- 506.5** EPA Method 25A – Determination of Total Gaseous Organic Concentrations Using a Flame Ionization Analyzer.
- 506.6** EPA Method 25B – Determination of Total Gaseous Organic Concentration Using a Nondispersive Infrared Analyzer.
- 506.7** EPA Method 27 – Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure – Vacuum Test.
- 506.8** Optical Gas Imaging: Alternative Work Practice for Monitoring Equipment Leaks, 40 CFR § 60.18(g), (h), and (i).
- 505.3 ~~EPA Method 27 – Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test.~~
- 505.4 **506.9** ~~ASTM D323—15a:~~ EPA Approved ASTM D323 06: Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method).