NOTICE OF FINAL RULEMAKING

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

RULE 350: STORAGE AND TRANSFER OF ORGANIC LIQUIDS (NON-GASOLINE) AT AN ORGANIC LIQUID DISTRIBUTION (OLD) FACILITY

The Maricopa County Air Quality Department (MCAQD) revised Rule 350 (Storage and Transfer of Organic Liquids (Non-Gasoline) at an Organic Liquid Distribution (OLD) Facility). 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 350) 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:	February 25, 2019
Stakeholder Workshops:	August 20, 2018 May 14, 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 350 limits emissions of volatile organic compounds (VOCs) from organic liquids (non-gasoline) during the storage and transfer of an organic liquid at an organic liquid distribution (OLD) facility. Rule 350 applies to the storage of any organic liquid with a maximum true vapor pressure greater than 0.5 psia at an OLD facility, and the transfer of any organic liquid with a maximum true vapor pressure greater than 0.5 psia at an OLD facility. The MCAQD revised Rule 350 to address rule deficiencies identified by the U.S. Environmental Protection Agency (EPA) to secure full approval of Rule 350 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 350 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 350 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 350 and the MCAQD would need to draft a commitment letter outlining revisions to Rule 350 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 350 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 350 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 16 rule

revision recommendations, which were not the basis for rule disapproval but were recommended for the rulemaking for Rule 350. Revisions addressing both the EPA's identified deficiencies and recommendations were made to Rule 350 (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:

Section 103 exempts fuel consumed or dispensed at the facility directly to users, hazardous waste, and wastewater and ballast water from organic liquid storage and transfer requirements. These exemptions were not included in the SIP-approved version of Rule 350, and are not exempted from other analogous California district rules or the applicable CTGs. Either these exemptions should be removed, or the District should demonstrate a) why they are necessary and b) how they will not interfere with attainment, RFP or other requirements of the Act. In addition, "Hazardous Waste" is not defined in the rule, and would require a more precise definition if it is to be the basis of an exemption.

Remedy 1:

The MCAQD corrected this deficiency by deleting Section 103.1.

Deficiency 2:

In SIP-approved Rule 351, bulk terminals were defined as facilities receiving over 600,000 gallons of gasoline and/or organic liquid with a TVP greater than or equal to 1.5 psia in any consecutive 30 day period, and were required to meet an emissions limit of 0.08 lbs of VOCs/1000 gallons transferred (SIP-approved Rule 351, section 301.1). We recommend adding a limit for organic liquid transfers as stringent as the SIP-approved rule. The absence of this emissions limit in Rule 350 may constitute a SIP relaxation, and should be evaluated by the District with respect to CAA section 110(l).

Remedy 2:

The MCAQD corrected this deficiency by adding a new section which includes an emissions limit for organic liquid distribution facilities transferring over 600,000 gallons/30-day period of organic liquid. This emissions limit is based on an analysis of RACT requirements in other nonattainment areas.

Deficiency 3:

Section 103.2(g)(2) 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 103.2(g)(2), specifying Control Officer approval.

Remedy 3:

The MCAQD corrected this deficiency by deleting Section 103.2.g(2), and adding Section 103.5.b without referencing Control Officer approval.

Deficiency 4:

Sections 301.1, 301.2. 301.3, and 301.4 do not state a prohibition. Instead, these sections are phrased so as to require owners and operators with particular types of tanks to put some amount of liquid into tanks that meet certain requirements. Section 301.3, in particular, appears to be missing the word "not" after "shall," so that it requires the opposite of what is intended. We recommend rephrasing these sections to state a prohibition, for example, by specifying that an owner or operator shall not store materials in tanks of the specified sizes, unless certain conditions are met.

Remedy 4:

The MCAQD corrected this deficiency by rephrasing and restructuring the requirements for organic liquid storage tanks to clarify these requirements without weakening any substantive requirements. The MCAQD deleted Section 301.1, 301.2, 301.3, and 301.4 and added new Section 303 (Control of VOC Vapors During the Storage of an Organic Liquid in a Stationary Storage Tank).

Deficiency 5:

Section 103.2 (e) exempts roofs from the requirement that they always be floating on liquid when the tank is drained completely and when it is being filled. This provision seems to exempt floating roofs from floating whenever the tank is being filled, instead of only during filling after the tank has been emptied completely. We recommend amending the exemption to apply only when the tank is drained completely and subsequently refilled, as long as both processes are accomplished continuously and as rapidly as practicable.

Remedy 5:

The MCAQD corrected this deficiency by deleting Section 103.2.e and adding Section 103.3 to clarify that the floating roof exemption only applies when the tank is initially filled, when the tank is drained completely and subsequently refilled, or when the tank is undergoing maintenance requiring the roof be rested on its leg supports, and only if filling, emptying, and refilling processes are continuous and accomplished as rapidly as possible.

Deficiency 6:

Section 302.1(b) is not clear regarding which external floating roof tanks are exempt from the rule's requirements. The SIP-approved version of the rule exempts tanks from having a rim-mounted secondary seal if shoe-mounted secondary seals were installed prior to 1988. The revised Rule 350 seems to provide a much broader exemption from all the rule's requirements for tanks with shoe-mounted secondary seals, and is unclear regarding tanks where a secondary seal is rim-mounted. We recommend either removing this exemption, or clarifying and narrowing it.

Remedy 6:

The MCAQD corrected this deficiency by deleting Section 302.1.b. and adding Section 303.3.b. The new section does not include an exemption for the rim-mounted secondary seal exemption for external floating roof tanks equipped with a metallic shoe primary seal onto which secondary seals were installed prior to July 13, 1988. Per discussions with stakeholders, there are no external floating roof storage tanks within Maricopa County that currently are equipped with the metallic shoe primary seals onto which secondary seals were installed prior to July 13, 1988.

Deficiency 7:

Section 302.2(c)(1) does not clearly specify vapor control requirements for internal floating roof tanks. We recommend revising this provision to either clearly specify internal floating roof requirements that meet RACT, or to match the SIP-approved language, which provides compliance with 40 CFR Part 50, subpart Kb as one compliance option.

Remedy 7:

The MCAQD corrected this deficiency by deleting Section 302.2.c(1) and adding Section 303.2.c(1) to match the SIP-approved language for the control of vapors on an internal floating roof organic liquid storage tank.

Deficiency 8:

Section 103.2(g)(1) allows a hatch, vent valve, or vapor sealing device to be open for vacuum relief when organic liquid is being transferred from the cargo tank or railcar into a storage tank. As opening the hatch on a cargo tank during unloading will necessarily provide some level of "vacuum relief," this provision is overly broad, and could result in an open hatch during the entire loading event, leading to VOC emissions release. Additionally, the CTG for bulk plants specifies that hatches be closed at all times while loading with a vapor balance system. We recommend revising section 103.2(g)(1) to clearly specify the limited conditions under which a hatch, vent valve, or vapor sealing device may be open during organic liquid transfer from the cargo tank to the storage tank (e.g. to avoid unsafe operating conditions).

Remedy 8:

The MCAQD corrected this deficiency by deleting Section 103.2.g(1) and adding Section 103.5.a to clarify and limit the conditions under which a hatch, vent valve, or vapor sealing device may be open during the transfer of an organic liquid from the cargo tank to the storage tank to those necessary to avoid unsafe operating conditions.

Recommendation 1:

Section 401.1 of SIP-approved Rule 351 required monthly inspections for vapor and liquid leaks, and section 401.3 required annual leak detection be performed with a combustible gas detector (CGD) or organic vapor analyser (OVA), however the current rule does not require annual leak detection inspections with a CGD or OVA. We recommend requiring annual leak inspections with a portable analyzer for sources at organic liquid distribution facilities.

Revision 1:

The MCAQD added new Section 403.2 to require annual leak inspections to be conducted with a portable analyzer for sources at organic liquid distribution facilities.

Recommendation 2:

Section 301.1(c) requires fixed-roof tanks to have pressure/vacuum (PV) valves that are either set to within 10% of the tank's maximum working pressure, or 0.5 psia, or per manufacturer's recommendation. The SIP-approved version specified that the PV valve must be within 10% of the tank's maximum working pressure, and did not allow for alternative settings. We recommend revising this requirement to match the SIP-approved version of the rule.

Revision 2:

The MCAQD added new Section 303.1.a(1) to clarify the settings for a pressure/vacuum vent valve and deleted Section 301.1.c. The MCAQD retained two options of setting the pressure/vent valve to either within 10% of the tank's maximum working pressure or at least at 0.5 psi.

Recommendation 3:

Section 211.3 specifies that tanks meet the submerged fill requirement if discharge pipes are kept completely submerged and are "API Standard 650 Compliant." We recommend adding a requirement that owners and operators make documentation available during site inspection that demonstrates the liquid level is always above the opening of the fill pipe for owners or operators using section 211.3 to comply with the rule's submerged fill requirements. Additionally, it is not clear what requirements must be met for tanks to be "API Standard 650 Compliant." We recommend specifying the relevant requirements in the rule.

Revision 3:

The MCAQD deleted Section 211.3, revised Section 212.2, and added a requirement under Section 302.2 that for any side-fill pipe greater than 18" from the bottom of the stationary storage tank, owners and operators must make documentation available during site inspection demonstrating that the liquid level is always above the opening of the fill pipe.

Recommendation 4:

Sections 302 and 401 have contradictory requirements due to incorrect unit conversions for maximum gap area and width for external floating roof tank secondary and primary seals.

Revision 4:

The MCAQD deleted Section 302 to clarify the contradictory requirements due to incorrect unit conversions for maximum gap area and width for external floating roof tank secondary and primary seals. The MCAQD added new Sections 303.3.c and d to clarify the gap measurements. New Sections 402.2.b, 402.3.a, and Section 402.3.b refer back to Section 303.3 for gap measurements for external floating roof stationary storage tanks.

Recommendation 5:

Section 502.2(c) specifies that the temperature may be obtained by "recording monthly AP 42" emission estimation procedures for each tank. It is unclear how this method provides an accurate temperature record of the tank. We recommend removing this as an option for recording the temperature of tank contents.

Revision 5:

The MCAQD removed this as an option for recording the temperature of tank contents.

Recommendation 6:

Section 303.2 requires leaks of various concentrations be repaired within a specified timeframe. Specifically, section 303.2(b) requires collection/processing equipment vapor leaks between 10,000 ppm and 50,000 ppm (measured as methane) be corrected within five days. However, the rule requires equipment and systems other than vapor collection/processing systems also be vapor tight (defined as less than 10,000 ppm as methane, or 1/5 the lower explosive limit (LEL) of the calibration gas), including stationary storage tanks (section 301.2(a)(2)) and equipment associated with the storage and transfer or organic liquid (section 303.1(b)). Therefore, we recommend broadening the requirement in 303.2(b) to apply to all equipment required to be vapor-tight, and specifying the leak range in both ppm and LEL units, to be consistent with the rule's "vapor tight" definition. Additionally, section 303.2(b) refers to vapor collection/processing systems subject to "gas-tight" requirements, however, "gas tight" is not defined in the rule. We recommend either replacing, deleting, or defining the term "gas-tight."

Revision 6:

The MCAQD deleted Section 303.2 and added new Section 306 to broaden the repair and retesting requirement to apply to all equipment required to be vapor tight; added the leak range in both ppm and LEL units in order to be consistent with the rule's "vapor tight" definition; and deleted the term “gas tight” from the rule and replaced it with the term “vapor tight” which is defined in the rule.

Recommendation 7:

Section 501.1 outlines how vapor tightness is determined during organic liquid transfers, however, other sections not associated with organic liquid transfer are also required by the rule to be vapor tight (e.g., stationary storage tanks in section 301.2(a)(2) and vapor collection/processing systems in section 302.3(b), (c), and (d)). We recommend clarifying how vapor tightness determinations are to be made in those circumstances (e.g., EPA Method 21).

Revision 7:

The MCAQD deleted Section 501.1 and added new Section 501.2 to clarify how vapor tightness determinations are made during organic liquid storage and transfers as well as for the vapor collection/processing systems. The MCAQD added new Section 501.2 (Determining Vapor Tight Status) to include the procedure for determining the vapor tight status of any piping, hoses, equipment, and devices used to collect, transport, store, or process organic vapors at an OLD facility.

Recommendation 8:

Table 350-1 summarizes requirements based on tank size and the TVP for the organic liquid being stored. However, several sections indicating applicable rule requirements seem to be missing from the table. Specifically, tanks between 20,000 and 40,000 gallons with a TVP between 0.5 and 1.5 are also required to comply with section 301.2 of the rule, which is not specified in the table. Likewise, tanks greater than 40,000 gallons, with TVPs of 0.5 to 1.5 psia are required to comply with section 301.3 of the rule, also not specified in the table. In addition, the rule requires tanks with a capacity greater than 250 gallons storing organic liquid with a TVP greater than 0.5 to meet the requirements of section 301.1, but section 301.1 is not listed in the column for tanks storing liquids with a psia of greater than 11. We recommend completing the table.

Revision 8:

The MCAQD deleted Table 350-1. Further discussions with Staff indicated the table was confusing and recommended the table be deleted from the rule. Additional revisions to Rule 350 further clarified the requirements without the use of a table.

Recommendation 9:

Section 216 specifies vapor tight status is determined by a "suitable detector." We recommend clarifying or defining the term "suitable detector."

Revision 9:

The MCAQD revised the definition of "vapor tight" to include the use of a calibrated OVA and a CGD when determining a vapor tight status.

Recommendation 10:

Section 501.3 includes the term "certified operator," however the term is not defined in the rule. We recommend either defining or removing that term. Additionally, section 501.3 is confusing, as it requires a determination of whether a "vapor leak" exists whenever a "vapor leak" is detected. This could be clarified by changing the second "vapor leak" reference to "vapor tight condition."

Revision 10:

The MCAQD is not requiring that an operator of an Optical Gas Imaging (OGI) be certified but only that the OGI be calibrated prior to identifying a potential leak. The MCAQD deleted Section 501.3 and added Section 501.1.c to clarify the use of an OGI.

Recommendation 11:

Section 506.1(h) references 40 CFR 60.18(g) for OGI. Please also reference (h) and (i), as those parts also include relevant requirements when using an OGI.

Revision 11:

The MCAQD added subsections (h) and (i) to include the relevant requirements when using an OGI.

Recommendation 12:

Section 302.1(c)(2) requires external floating roofs be equipped with a continuous primary seal, except as provided in section 103.2. As section 103.2 includes several exemptions, it is not clear which is applicable. We recommend specifying which exemptions in section 103.2 apply.

Revision 12:

The MCAQD deleted this section and the exemption reference within it.

Recommendation 13:

Section 302.1(e)(4), (5), and section 302.2(d)(4) and (5), require openings in the roof be covered and that those covers be in a closed position at all times "where applicable." We recommend specifying the types of roof openings that are incompatible with these requirements, instead of authorizing compliance with this provision based on the ambiguous term "where applicable."

Revision 13:

The MCAQD deleted Sections 302.1(e)(4) and (5) and added new Section 303.3.e (External Floating Roof Openings) in order to specify the types of roof openings that are required to be covered. The MCAQD added new Section 303.2.d (Internal Floating Roof Openings) in order to specify the types of roof openings that are required to be covered. The MCAQD deleted Sections 302.2(d)(4) and (5).

Recommendation 14:

Section 402 specifies that one or more of the four types of inspection techniques can be used when performing monthly inspections. As that provision may be read as permissive and potentially allowing for any other inspection techniques, we recommend revising "can" to "shall."

Revision 14:

The MCAQD deleted Section 402 and added new Section 403.1 to clarify that one or more of the four types of inspection techniques shall be used when performing monthly inspections.

Recommendation 15:

Sections 304.1(b) and (c) require owners and operators verify proper connection and disconnection of a vapor balance system or "other vapor loss control system" only at facilities that utilize vapor balance systems. We recommend also requiring this verification at facilities that use other vapor loss control systems.

Revision 15:

The MCAQD deleted Section 304.1 and added new Section 305.1.e to clarify that owners and operators verify proper connection and disconnection to a vapor balance system at facilities that utilize vapor balance systems and at facilities that use other vapor loss control systems.

Recommendation 16:

We recommend requiring owners and operators perform a complete inspection of internal floating roof primary seals, including measurement of gap area and maximum gap whenever the tank is emptied for non-operational reasons or at least every five years, whichever is more frequent, as was required in Section 403 in SIP-approved Rule 350.

Revision 16:

The MCAQD added the requirement for owners and operators to perform a complete inspection of internal floating roof primary seals, including measurement of gap area and maximum gap whenever the tank is emptied for non-operational reasons or at least every five years, whichever is more frequent, as was required in Section 403 in SIP-approved Rule 350.

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 350, "Storage & Transfer of Organic Liquids (Non-Gasoline) at an Organic Liquid Distribution Facility." https://www.regulations.gov/document?D=EPA-R09-OAR-2019-0493-0002

U. S. Environmental Protection Agency, "Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks" December, 1978, https://www3.epa.gov/airquality/ctg_act/197812_voc_epa450_2-78-047_petrol_roof_tanks.pdf

U. S. Environmental Protection Agency, "Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed-Roof Tanks" December, 1977, https://www3.epa.gov/airquality/ctg_act/197712_voc_epa450_2-77-036_fixed_roof_tanks.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 350.

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

The MCAQD revised Rule 350 to remedy deficiencies identified by the EPA. This rulemaking is required to secure approval of Rule 350 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 350 to remedy deficiencies identified by the EPA. This rulemaking is required to secure approval of Rule 350 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 350 to remedy deficiencies identified by the EPA. This rulemaking is required to secure approval of Rule 350 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 facilities in Maricopa County that store any organic liquid (non-gasoline) with a maximum true vapor pressure greater than 0.5 psia at an OLD facility, and the transfer of any organic liquid (non-gasoline) with a maximum true vapor pressure greater than 0.5 psia at an OLD facility. The revised Rule 350 updates and clarifies existing rule provisions and definitions to be consistent with federal rule language and reduces

confusion to 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 350 to remedy deficiencies identified by the EPA. This rulemaking is required to secure approval of Rule 350 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 350 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 facilities in Maricopa County that store and transfer any organic liquid (non-gasoline) with a maximum true vapor pressure greater than 0.5 psia at an OLD facility.

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

This rulemaking updates and clarifies existing rule provisions and definitions to be consistent with federal rule language, and reduces confusion to 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 350 to remedy deficiencies identified by the EPA. This rulemaking is required to secure approval of Rule 350 into the SIP for RACT and avoid sanctions and imposition of a 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 350 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 350 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 the storage and transfer of organic liquids (non-gasoline) at an OLD Facility. As there is no new fee or tax associated with this rulemaking, the MCAQD also affirms that Rule 350 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:

Notice	Date of Posting
Briefing Notification to County Manager	January 26, 2018
Notice of Stakeholder Workshop	August 03, 2018 April 29, 2020
Notice of Board of Health Meeting to Initiate Regulatory Change:	February 08, 2019
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. Based off of stakeholder comments, the MCAQD added the phrase "not to exceed 12 months between inspections" to clarify the annual inspection requirements. This clarification was added to the following sections as indicated below:

   Section 401.2.b: Annual Inspection, not to exceed 12 months between inspections:

   Section 402.2: Annual Inspection, not to exceed 12 months between inspections:

Section 403.2: Annual Leak Detection Inspections (not to exceed 12 months between inspections): Inspect for liquid leaks, vapor leaks, and for faulty equipment.

2. Based off of stakeholder comments, the MCAQD added the phrase "not to exceed 60 months between inspections" to clarify the five (5) year inspection requirements. This clarification was added to the following sections as indicated below:

   Section 401.2.c: Five (5) Year Inspection and Empty Tank Inspection: Each time the internal floating roof stationary storage tank is emptied and degassed or at least once every five (5) years, not to exceed 60 months between inspections.

   Section 402.3: Five (5) Year Inspection and Empty Tank Inspection: Each time the external floating roof stationary storage tank is emptied and degassed or at least once every five (5) years, not to exceed 60 months between inspections. This inspection can be conducted while the tank is in service.

3. The MCAQD revised the rim vent language for internal floating roof openings to match the rim vent language for external floating roof openings. The section was revised as indicated below:

   Section 303.2.d5: Rim vents, if provided, shall be set to open only:

   (a) When the roof is being floated off the roof leg supports; or

   (b) At the manufacturer's recommended setting.

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 two stakeholders. All of the comments were 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.

Comment #2: The submerged fill requirement only applies for bulk plant per Subpart 6Bs. However, if the submerged fill requirement will be added for terminals, please remove "completely" from the phrase "tank is being drained completely". There was an incident at another terminal where a tank valve was weeping. In order to make the repairs, the tank liquid had to be drained below the fill line.

Response #2: The MCAQD expanded the submerged fill exemption under Section 103 to allow the tank liquid to be drained below the fill pipe in order to make a repair. The definition reads as follows: A submerged fill pipe in a stationary storage tank shall be submerged at all times except:

a. During the initial fill until the fill pipe is submerged. The process of filling shall be continuous and shall be accomplished as rapidly as possible while minimizing vapors.

b. When the organic liquid storage tank is in the process of being completely drained and subsequently refilled. The process of emptying and refilling shall be continuous and shall be accomplished as rapidly as possible while minimizing vapors.

c. When the tank liquid has to be drained below the fill pipe in order to make a repair. The repair is to be made as expeditiously as possible. The process of refilling the organic liquid storage tank to meet the submerged fill pipe requirement shall be continuous and shall be accomplished as rapidly as possible while minimizing vapors.

Comment #3: Can the rule clarify if "once per year" refers to once per calendar year, or not to exceed 12 months between gap measurement inspections?

Response #3: The MCAQD considered your comment and clarified "once per year" by adding "not to exceed 12 months between inspections"

Comment #4: Rule states gap shall not exceed 1.26cm (0.2 inch). 1.26cm is equal to 0.5 inch. Please clarify which value should be used.

Response #4: The MCAQD deleted section 401.1.b(2) and added new section 303.3.d(2) to clarify the gap measurements. The clarification of the gap measurements reads as follows: The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 1.0 square inch per foot (1 $in^2/ft.$) of tank diameter. Determinations of gap area shall only be made at the point(s) where the gaps exceed one eighth inch (1/8"). The width of any portion of any gap shall not exceed one half inch (1/2"). [40 CFR § 60.113b(b)(4)(ii)]

Comment #5: Can the rule clarify if "once every 5 years" refers to once per 5 calendar years, or not to exceed 60 months between inspections?

Response #5: The MCAQD considered your comment and clarified "once every 5 years" by adding "once every 5 years, not to exceed 60 months between inspections".

Comment #6: Rule states accumulated area shall not exceed 21.2 cm2 (39.9 square inches). 21.2 cm2 is equal to 3.29 square inches. Rule states gap shall not exceed 3.81cm (0.59 inch). 3.81cm is equal to 1.5 inch. Please clarify which values should be used.

Response #6: The MCAQD considered your comment and deleted section 401.1.c(3) and added a new section 303.3.c to clarify the correct requirements. The clarification of the values reads as follows: The accumulated area of gaps between a tank's wall and primary seal shall not exceed ten square inches per foot (10 in^2/ft.) of tank diameter. The width of any portion of any gap shall not exceed one and one half inches (1½").

Comment #7: Can the rule clarify if "once a year" refers to once per calendar year, or not to exceed 12 months between visual inspections? (also, there is a typo in the last sentence "rood"->"roof").

Response #7: The MCAQD considered your comment and clarified "once per year" by adding "not to exceed 12 months between inspections." The MCAQD also corrected the typo.

Comment #8: Can the rule clarify if "once every 5 years" refers to once per 5 calendar years, or not to exceed 60 months between inspections?

Response #8: The MCAQD considered your comment and clarified "once every 5 years" by adding "once every 5 years, not to exceed 60 months between inspections".

EXACT WORDING OF THE RULE

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

RULE 350
STORAGE AND TRANSFER OF ORGANIC LIQUIDS (NON-GASOLINE) AT AN ORGANIC LIQUID DISTRIBUTION <u>(OLD)</u> FACILITY

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Revised 07/13/1988; Revised 04/06/1992; Revised 11/02/2016; and Revised **11/18/2020**

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

RULE 350
STORAGE AND TRANSFER OF ORGANIC LIQUIDS (NON-GASOLINE) AT AN ORGANIC LIQUID DISTRIBUTION (OLD) FACILITY

SECTION 100 – GENERAL

101 PURPOSE: To limit emissions of volatile organic compounds (VOCs) from organic liquids (non-gasoline) ~~under~~ during the ~~actual~~ storage and transfer ~~conditions at~~ of an organic liquid at an organic liquid distribution (OLD) facility.

102 APPLICABILITY: ~~This rule is applicable to the bulk storage and transfer of any organic liquid (non-gasoline) with a true vapor pressure (TVP) greater than 0.5 psia at an organic liquid distribution facility. Compliance with the provisions of this rule shall not relieve any owner or operator subject to the requirements of this rule from complying with any other federally enforceable New Sources Performance Standards (NSPS) and National Emissions Standards for Hazardous Air Pollutants (NESHAP). In such cases, the most stringent standard shall apply.~~

102.1 This rule applies to:

a. The storage of any organic liquid (non-gasoline) with a maximum true vapor pressure greater than 0.5 psia at an OLD facility.

b. The transfer of any organic liquid (non-gasoline) with a maximum true vapor pressure greater than 0.5 psia at an OLD facility.

102.2 Compliance with the provisions of this rule shall not relieve any owner or operator subject to the requirements of this rule from complying with any other federally enforceable New Sources Performance Standards (NSPS) and National Emissions Standards for Hazardous Air Pollutants (NESHAP). In such cases, the most stringent standard shall apply.

103 EXEMPTIONS:

~~103.1 Total Exemptions: For the purposes of this rule, the following are exempt from this rule:~~

~~a. Gasoline facilities subject to Rule 351 of these rules;~~

~~b. Gasoline, including aviation gasoline, kerosene, diesel fuel, asphalt and heavier distillate oils and fuel oils;~~

~~c. Fuel consumed or dispensed at the facility directly to user such as fleet refueling, that support the operation of the facility;~~

~~d. Hazardous waste;~~

~~e. Wastewater or ballast water; and~~

f. Any non-crude oil liquid with an annual average TVP less than 0.7 kilopascals (0.1 psia). [40 CFR §63.2406]

103.2 Partial Exemptions:

a. Stationary storage tanks and containers with a capacity of less than 250 gallons (946.35 L) are exempt from Section 301 and 302 of this rule.

b. An organic liquid distribution facility built prior to October 2, 1978, is not required to have a vapor loss control system at the transfer rack when all of the following are complied with:

(1) The distribution facility transfers less than 120,000 gallons (454,800 l) of organic liquid (non-gasoline) into cargo tanks in any consecutive 30-day period.

(2) Any organic liquid distribution facility that becomes subject to all of the provisions of this rule by exceeding the threshold in Section 103.2(b)(1) of this rule, will remain subject to the rule provisions even if its output later falls below the threshold.

(3) Keep current records of amount of organic liquid transferred and keep them readily accessible to the Department upon request for at least five (5) years.

(4) Transfer organic liquid using submerged fill only.

(5) The owner or operator of the organic liquid distribution facility shall observe all parts of the transfer and shall discontinue the transfer if any liquid or vapor leaks are observed.

c. Submerged Fill: An organic liquid (non-gasoline) storage tank is exempt from the requirement that a submerged fill discharge pipe be fully submerged when:

(1) The tank is being drained completely.

(2) The tank is being initially filled or filled after being completely drained.

d. A stationary pressure tank maintaining working pressure sufficient at all times to prevent organic vapor loss to the atmosphere is exempt from Section 302 of this rule.

e. An owner or operator is exempt from the requirement that the roof be floating when the tank is being drained completely and when it is being filled, as long as both processes are accomplished continuously and as rapidly as practicable.

f. The owner or operator is exempted from the requirements for secondary seals and the secondary seal gap criteria when performing gap measurements or inspections of the primary seal.

g. Opening of Hatches, Vent Valves or Other Vapor Sealing Devices:

(1) A hatch, vent valve or other vapor sealing device may be opened for vacuum relief on a cargo tank or rail car when the organic liquid is in the process of being transferred from the cargo tank or rail car into a storage tank. Reclose

~~hatch, vent valve or other vapor sealing device at the completion of the transfer process.~~

~~(2) When VOC vapors from organic liquids are present within a cargo tank, authorized government agents as well as owners or operators, and their contractors may open vapor containment equipment while performing operations required by these Maricopa County Air Pollution Control Regulations or by other statutory entities, but shall be restricted as follows unless otherwise approved in advance by the Control Officer:~~

~~(a) Wait at least three (3) minutes after transfer is complete or cargo tank has come to a complete stop before opening hatch or other vapor seal.~~

~~(b) Reclose hatch or other vapor sealing device within 3 minutes of opening.~~

~~(c) Limit wind speed at opened hatch or other opened sealing device to not more than three (3) mph (1.34 m/sec).~~

103.1 **Stationary Storage Tank or Container with a Capacity of Less Than 250 Gallons:** The owner or operator of a stationary storage tank or container with a capacity of less than 250 gallons shall comply with, at a minimum, the following sections of this rule:

a. Section 301 (Federal Standards for Organic Liquid Distribution (OLD) Facilities).

b. Section 302 (General Requirements) when storing organic liquid.

c. Section 305.1 (General Requirements for the Transfer of Organic Liquids).

103.2 **Submerged Fill:** A submerged fill pipe in a stationary storage tank shall be submerged at all times except:

a. During the initial fill until the fill pipe is submerged. The process of filling shall be continuous and shall be accomplished as rapidly as possible while minimizing vapors.

b. When the organic liquid storage tank is in the process of being completely drained and subsequently refilled. The process of emptying and refilling shall be continuous and shall be accomplished as rapidly as possible while minimizing vapors.

c. When the tank liquid has to be drained below the fill pipe in order to make a repair. The repair is to be made as expeditiously as possible. The process of refilling the organic liquid storage tank to meet the submerged fill pipe requirement shall be continuous and shall be accomplished as rapidly as possible while minimizing vapors.

103.3 **Floating Roof:** The floating roof shall be floating on the liquid surface at all times (i.e., off the roof leg supports) except:

a. During initial fill until the roof is lifted off leg supports. The process of filling shall be continuous and shall be accomplished as rapidly as possible while minimizing vapors.

b. When the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible while minimizing vapors.

c. When a repair requires that the organic liquid be drained below the level where the roof is floating. The repair work shall be accomplished as rapidly as possible. Upon completion of the repair, the process of refilling the organic liquid storage tank to meet the floating requirement shall be continuous and shall be accomplished as rapidly as possible while minimizing vapors.

103.4 Seal Gap: An owner or operator is exempted from the requirements for secondary seals and the secondary seal gap criteria when:

a. Performing gap measurements.

b. Inspecting the primary seal.

c. Conducting repair work on the secondary seal. The repair work shall be accomplished as rapidly as possible.

103.5 Opening of Hatches, Vent Valves, or Other Vapor Sealing Devices:

a. 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.

b. When VOC vapors from organic liquids are present within a cargo tank, owners or operators, their contractors, and authorized government agents may open a hatch, vent valve, or other vapor sealing device 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 three (3) minutes after transfer is complete or cargo tank has come to a complete stop before opening the hatch, vent valve, or other vapor sealing device.

(2) Reclose the hatch, vent valve, or other vapor sealing device within three (3) minutes of opening.

(3) Limit wind speed at the opened hatch, vent valve, or other opened vapor sealing device to not more than three miles per hour (3 mph).

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 CARGO TANK: A liquid-carrying railcar or a liquid-carrying tank permanently attached and forming an integral part of a motor vehicle or truck trailer. For the purposes of this rule, vacuum trucks used exclusively for maintenance or spill response are not considered cargo tanks. [40 CFR §63.2406]

202 **CLOSED VENT SYSTEM**: A system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapors from an emission point to a control device. This system does not include the vapor balance system that is part of a cargo tank or the loading arm or hose that is used for vapor return. For transfer racks, the closed vent system begins at, and includes, the first block valve on the downstream side of the loading arm or hose used to convey displaced vapors. [40 CFR § 63.2406]

~~202~~ **203** **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]

204 **CONTROL DEVICE:** Any combustion device, recovery device, recapture device, or any combination of these devices used to comply with this rule. Such equipment or devices include, but are not limited to, absorbers, adsorbers, condensers, and combustion devices. Primary condensers, steam strippers, and fuel gas systems are not considered control devices. [40 CFR § 63.2406]

~~203~~ **205** **EXCESS ORGANIC LIQUID DRAINAGE:** ~~More than 10 milliliters (0.34 fluid ounces or 2 teaspoonsful) of organic liquid lost from the end of a fill hose (or vapor hose if one is in use) in the process of connecting or disconnecting the hose; or any quantity of organic liquid 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.~~ The quantity of organic liquid that drains out of the end of an organic liquid loading hose or a vapor recovery hose during the process of connecting or disconnecting that is one or more of the following:

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

205.2 Wets any area on the ground having an aggregate area greater than 113 square inches (113 in^2).

205.3 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.

~~204~~ **206** **EXTERNAL FLOATING ROOF STATIONARY STORAGE TANK:** An open top storage tank with a floating roof consisting of a double deck or pontoon single deck that rests upon and is supported by the liquid being contained.

~~205 GASOLINE: Any petroleum distillate, petroleum distillate/alcohol blend, petroleum distillate/organic compound blend, or alcohol that meets both of the following conditions:~~

~~209.1 Has a Reid vapor pressure between 4.0 and 14.7 psi (200-760 mm Hg.), as determined by ASTM D323-15a; and~~

~~209.2 Is used as a fuel for internal combustion engines. [40 CFR 63.11100]~~

~~206~~ **207** **INTERNAL FLOATING ROOF STATIONARY STORAGE TANK WITH A FIXED ~~COVERING~~ ROOF:** A stationary storage tank with a floating cover or roof that rests upon or is floated upon the liquid being contained, and ~~that also~~ has a fixed roof on top of the tank shell. For the purposes of this rule, an external floating roof stationary storage tank that has been retrofitted with a geodesic dome or other fixed roof shall be considered to be an internal floating roof stationary storage tank~~.~~ with a fixed roof.

~~207~~ **208** **LEAK FREE:** A condition in which there is no organic liquid escape or seepage of more than ~~3~~ three (3) drops per minute from organic liquid storage, handling, ~~and~~ or ancillary equipment, including, but not limited to, seepage and escapes from above ground fittings. This does not include the disconnecting or connecting of either an organic liquid hose from an organic liquid fill line or a vapor recovery hose from a vapor line.

209 **MAXIMUM TRUE VAPOR PRESSURE:** The equilibrium partial pressure exerted by the VOCs (as defined in 40 CFR § 51.100) in the stored volatile organic liquid (VOL) at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOL's stored at the ambient temperature, as determined by one or more of the following:

209.1 In accordance with methods described in American Petroleum Institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks.

209.2 As obtained from standard reference texts.

209.3 As determined by ASTM D2879-83, ASTM D2879-96, or ASTM D2879-97. [40 CFR § 60.111b]

~~208~~ ~~ORGANIC LIQUID: Any organic compound which exists as a liquid under any actual conditions of use, transport or storage. For the purposes of this rule, gasoline is not considered an organic liquid.~~

~~209~~ **210** **ORGANIC LIQUID DISTRIBUTION (OLD) FACILITY:** A stationary source that primarily receives and distributes organic liquids that are manufactured and consumed by other parties. This includes the combination of activities and equipment used to store or transfer organic liquids into, out of, or within a plant site regardless of the specific activity being performed. Activities include, but are not limited to, storage, transfer, blending, compounding, and packaging. [40 CFR 63.2406]

~~210~~ **211** **STATIONARY STORAGE TANK:** Any tank~~;~~ or reservoir~~, or other container~~ used to store, but not transport, organic liquids.

~~211~~ **212** **SUBMERGED FILL:** Any organic liquid ~~discharge~~ fill pipe or nozzle extension which meets at least one of the ~~applicable~~ specifications below:

~~211.1~~ **212.1** **Top-Fill or Bottom-Fill:** The end of the ~~discharge~~ fill pipe or nozzle extension is totally submerged when the liquid level is six (6) inches ~~(15 cm)~~ from the bottom of the tank.

~~211.2~~ **212.2** **Side-Fill:** ~~At its highest point within the storage tank, the~~ The end of the ~~discharge~~ fill pipe or nozzle extension is totally submerged when the liquid level is eighteen

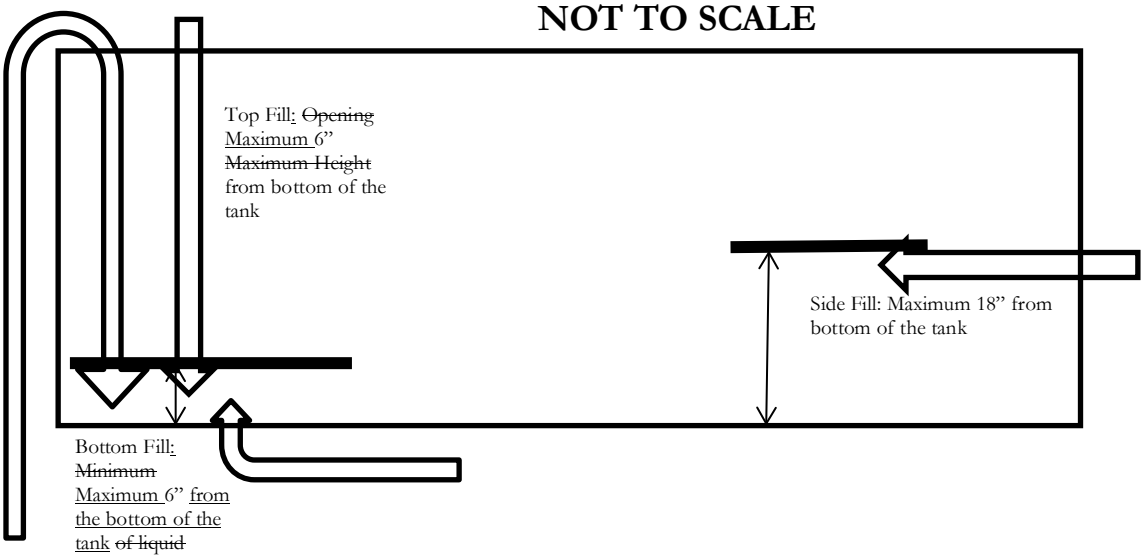
inches (18") from the bottom of the stationary storage tank. ~~eighteen (18) inches (46 cm) from the bottom of the tank.~~ A side-fill pipe that is greater than 18" from the bottom of the stationary storage tank shall remain submerged at all times.

~~211.3 API Standard 650 Compliant: A floating roof storage tank meets the submerged fill requirements in this rule, if the discharge pipe or nozzle meets both of the following requirements:~~

~~a. Is kept completely submerged, including when the roof rests on its legs, except when the tank is being emptied completely and refilled; and~~

~~b. Is designed and installed according to the API Standard 650.~~

Submerged Fill Diagram
NOT TO SCALE



213 **SWITCH LOADING:** Loading an organic liquid not subject to this rule into a cargo tank whose previous load was an organic liquid subject to this rule.

214 **THROUGHPUT:** The amount of organic liquid received.

~~212 TRUE VAPOR PRESSURE (TVP): Absolute vapor pressure of a liquid at its existing temperature of storage and handling.~~

~~213~~ **215** **VAPOR BALANCE SYSTEM:** ~~A system of vapor tight piping, hoses, equipment and devices which collect and return displaced vapors between a cargo tank and a storage tank.~~ Vapor loss control equipment that collects organic vapors displaced from the transfer of organic liquid into:

215.1 A cargo tank and routes the collected vapors to a stationary organic liquid storage tank; or

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

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

~~214 VAPOR COLLECTION/PROCESSING SYSTEM: A vapor loss control system consisting of a vapor gathering subsystem capable of collecting the organic vapors and organic gases plus a second subsystem capable of processing such vapors and gases, preventing at least 95 percent of the volatile organic compounds entering it from entering the atmosphere.~~

~~215 VAPOR LOSS CONTROL SYSTEM: A system for reducing emissions to the atmosphere, consisting of an abatement device and a collection system, which achieves the abatement efficiency or emission limit during the transfer operation at an organic liquid distribution facility.~~

~~216~~ **216 VAPOR TIGHT:** ~~A condition in which a suitable detector at the site of (potential) leakage of vapor shows less than 10,000 ppmv when calibrated with methane or the detector shows less than 1/5 lower explosive limit (LEL) when calibrated with a gas specified by the manufacturer and used according to the manufacturer's instructions.~~ A condition at the site of a (potential) vapor leak in which:

216.1 An organic vapor analyzer (OVA) shows less than 10,000 ppmv when calibrated with methane; or

216.2 A combustible gas detector (CGD) shows less than one-fifth lower explosive limit (1/5 LEL) when:

a. Calibrated with a gas specified by the manufacturer; and

b. Used according to the manufacturer's instructions.

SECTION 300 – STANDARDS

~~301 ORGANIC LIQUID STATIONARY STORAGE TANK REQUIREMENTS:~~

~~301.1 All Stationary Storage Tanks with a Capacity Greater than 250 Gallons (946 L): An owner or operator of a stationary storage tank with a capacity greater than 250 gallons (946 l) shall store organic liquid with a TVP of 0.5 psia (26 mm Hg) or more in a stationary storage tank meeting all of the following:~~

~~a. Each stationary storage tank has a fill pipe that is maintained leak free and vapor tight when organic liquid is not in the process of being transferred.~~

~~b. Each stationary storage tank has a permanently installed submerged fill pipe. Where because of government regulation, including, but not limited to, Fire Department codes, such submerged fill pipe cannot be installed, a nozzle extension that reaches within six (6) inches (15 cm) of the tank bottom shall be used to fill the tank.~~

~~c. Each fixed roof stationary storage tank has a pressure/vacuum valve that complies with both Section 301.1(c)(1) and 301.1(c)(2) of this rule. An owner or operator shall:~~

~~(1) Install a pressure/vacuum vent valve that is either:~~

(a) Set within ten percent (10%) of the tank's maximum, safe working-pressure; or

(b) Set at least at 0.5 psia (25.9 mm Hg) or per manufacturer's recommendation.

(2) Maintain the pressure/vacuum vent in good working order.

301.2 Organic Liquid Stationary Storage Tanks with a Capacity of 20,000 Gallons (75,700L) to Less Than 40,000 Gallons (151,400 L): An owner or operator of an organic liquid stationary storage tank with a capacity between 20,000 gallons (75,700 l) but less than 40,000 gallons (151,400 l), shall store organic liquids with a TVP equal to or greater than 0.5 psia but less than or equal to 11.0 psia (26 ≥ mmHg ≤ 569) in a stationary storage tank meeting all of the following requirements:

a. The stationary storage tank shall:

(1) Be maintained leak-free.

(2) Be maintained vapor tight.

(3) Be equipped with at least one of the vapor loss control systems specified in Section 301.2(b) of this rule.

b. An owner or operator shall install and maintain at least one of the following vapor loss control systems as described in Section 302 of this rule:

(1) Install and maintain a vapor recovery system which collects and returns displaced vapors to the cargo tank using vapor-tight fittings and lines; or

(2) Install and maintain an external floating roof stationary storage tank; or

(3) Install and maintain an internal floating roof stationary storage tank with a fixed cover; or

(4) Install and maintain a vapor collection/processing system.

301.3 Organic Liquid Stationary Storage Tanks with a Capacity Equal to or Greater than 40,000 Gallons (151,400 L): An owner or operator of an organic liquid stationary storage tank with a capacity equal to or greater than 40,000 gallons (151,400 l) shall store organic liquids with a TVP equal to or greater than 0.5 psia but equal to or less than 11.0 psia (26 ≥ mmHg ≤ 569) in a stationary storage tank meeting all of the following requirements, unless such stationary storage tank is equipped with at least one of the vapor loss control systems described in Section 302 of this rule:

a. Install and maintain an external floating roof stationary storage tank; or

b. Install and maintain an internal floating roof stationary storage tank with a fixed cover; or

c. Equip the stationary storage tank with a vapor collection/processing system as described in Section 302 of this rule.

301.4 Organic Liquid Stationary Storage Tanks Storing Liquids Having a TVP Greater Than 11 PSIA: An owner or operator shall place, store, or hold organic liquid with a TVP greater than 11.0 psia (569 mm Hg) in a stationary storage tank that meets at least one of the vapor loss control methods specified below:

a. Maintain a working pressure in the stationary storage tank that is sufficient at all times to prevent organic vapor loss to the atmosphere.

b. Equip the stationary storage tank with a vapor collection/processing system as described in Section 302 of this rule.

Table 350-1

Summary of Organic Liquid (Non-Gasoline) Stationary Storage Tank VOC Emission Control Requirements

True Vapor Pressure of Organic Liquid in Tank			
	0.5≥ psia <1.5 (26≥ mm Hg <77.5)	1.5≥ psia ≤11.0 (77.5 ≥ mm Hg ≤569)	>11.0 psia (>569 mm Hg)
Tank Capacity	Applicable Rule 350 Section:	Applicable Rule 350 Section:	Applicable Rule 350 Section:
All organic liquid (non-gasoline) stationary storage tanks >250 gallons	Section 301.1	Section 301.1	Section 301.4
All organic liquid (non-gasoline) storage tanks 20,000 gallons to <40,000 gallons	Section 301.1	Section 301.1 and Section 301.2	Section 301.4
All organic liquid (non-gasoline) storage tanks ≥40,000 gallons	Section 301.1	Sections 301.1 and Section 301.3	Section 301.4

302 VAPOR LOSS CONTROL SYSTEM:

302.1 External Floating Roof Stationary Storage Tanks: An external floating roof stationary storage tank must meet the following requirements:

a. The owner or operator of an external floating roof stationary storage tank and vapor balance system, or vapor collection/processing system, or vapor loss control system shall properly install, properly maintain and properly operate the equipment.

b. The owner or operator of an external floating roof stationary storage tank shall operate an external floating roof tank subject to the provisions of this rule, except for tanks having metallic shoe primary seals onto which secondary seals were installed prior to July 13, 1988, and unless a secondary seal extends from the roof to the tank shell (a rim-mounted seal) and is not attached to the primary seal.

c. External Floating Roof Requirements:

(1) The floating roof shall rest on and be supported by the surface of the liquid contents.

(2) The floating roof shall be equipped with a continuous primary seal to close the space between the roof eave and tank wall, except as provided in Section 103.2 of this rule.

(3) The floating roof shall have a continuous secondary seal which is of a design that is in accordance with accepted standards of the organic liquids industry.

The secondary seal shall meet the requirements of Section 302.1(d) of this rule.

d. Secondary Seal Requirements:

(1) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge or primary seal and the tank wall, except as provided in Section 302.1(d)(2) of this rule.

(2) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 1.0 square inch per foot (21.2 cm^2 per meter) of tank diameter. Determinations of gap area shall only be made at the point(s) where the gaps exceed one eighth (1/8) inch (3 mm). The width of any portion of any gap shall not exceed one half (1/2) inch (1.27 cm).

(3) Stationary storage tanks constructed after July 13, 1988, shall have a secondary seal that is rim-mounted.

e. External Floating Roof Openings:

(1) Floating roof tanks subject to the provisions of Section 302.1 of this rule shall have no visible holes, tears or other openings in the seal or in any seal fabric.

(2) The accumulated area of gaps between a tank's wall and primary seal shall not exceed ten (10) square inches per foot of tank diameter (212 cm^2 per meter).

(3) The width of any portion of any gap shall not exceed one and one half (1½) inches (3.8 cm).

(4) Where applicable, all openings except drains shall be equipped with a cover seal or lid.

(5) Where applicable, the cover seal or lid shall be in a closed position at all times, except when the system is in actual use.

(6) Automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports.

(7) Rim vents, if provided, shall be set to open only when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

302.2 Internal Floating Roof Stationary Storage Tanks with Fixed Covering: An internal floating roof stationary storage tank and its appurtenances shall meet the applicable requirements as follows:

a. The owner or operator of an internal floating roof stationary storage tank and associated emission control equipment shall properly install, maintain and operate the equipment.

b. Organic liquid stationary storage tanks for which construction, reconstruction or modification commenced after July 23, 1984, must comply with all applicable requirements of the EPA New Source Performance Standard (NSPS), 40 CFR Part 60, Subpart Kb-Standards of Performance for Volatile Organic Liquid

Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. This federal standard is adopted and incorporated by reference in Rule 360 and Rule 370 of these rules.

c. All stationary storage tanks not subject to Section 302.2(b) of this rule must comply with one of the following:

(1) Sections of 40 CFR Part 60, Subpart Kb that are not addressed in Section 302.2(b) of this rule; or

(2) Have at least one continuous seal which completely covers the space between the roof edge and tank wall, except as provided in Section 302.2(d) of this rule, and meet at least one of the following requirements:

(a) Have a contact-type roof resting completely on the liquid surface.

(b) Have a liquid mounted seal.

(c) Have two seals, a primary and a secondary.

d. Internal Floating Roof Openings:

(1) Floating roof tanks subject to the provisions of Section 302.2 of this rule shall have no visible holes, tears or other openings in the seal or in any seal fabric.

(2) The accumulated area of gaps between a tank's wall and primary seal shall not exceed ten (10) square inches per foot of tank diameter (212 cm^2 per meter).

(3) The width of any portion of any gap shall not exceed one and one half (1½) inches (3.8 cm).

(4) Where applicable, all openings except drains shall be equipped with a cover seal or lid.

(5) Where applicable, the cover seal or lid shall be in a closed position at all times, except when the system is in actual use.

(6) Automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports.

(7) Rim vents, if provided, shall be set to open only when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

302.3 Vapor Collection/Processing System: This vapor loss control system consists of a vapor gathering subsystem capable of collecting the organic vapors and organic gases plus a second subsystem capable of processing such vapors and gases, preventing at least 95 percent by weight of the volatile organic compounds entering it from escaping to the atmosphere.

a. An owner or operator of an organic liquid distribution facility that has an organic liquid throughput greater than 600,000 gallons (2,271,247 l) in any consecutive 30-day period, shall install, operate and maintain a vapor loss control system.

b. The vapor processing subsystem shall be vapor-tight except for the designated exhaust.

c. Any tank gauging or sampling device on a tank, vented to such a vapor loss control system, shall be equipped with a vapor-tight cover which shall be closed at all times except during gauging or sampling procedures.

d. All pressure-vacuum vent valves shall be constructed and maintained in a vapor-tight condition except when the operating pressure exceeds the valve release setting.

303 EQUIPMENT MAINTENANCE AND REPAIR: The owner or operator of an organic liquid distribution facility shall:

303.1 Maintain the equipment associated with the storage and transfer of organic liquid to be all of the following:

a. Leak free;

b. Vapor tight; and

c. In good working order.

303.2 Repair and Retest: The owner or operator of a vapor loss control system that exceeds the standards of this rule shall notify the Control Officer immediately and observe the following time schedule for corrective action:

a. Concentrations at or above the lower explosive limit must be brought into compliance within 24 hours of detection.

b. For vapor collection/processing equipment subject to gas-tight standard, leak concentrations exceeding 10,000 ppm but less than 50,000 ppm as methane shall be brought into compliance within 5 days of detection.

c. Except as the Control Officer otherwise specifies, a leak source must be tested after presumed leak-correction within fifteen (15) minutes of recommencing use. If leak standards are exceeded in this test, the use of the leak-correction equipment shall be discontinued until correction is verified by retesting.

304 GENERAL REQUIREMENTS FOR THE TRANSFER OF ORGANIC LIQUID: The owner or operator of an organic liquid distribution facility shall comply with the following:

304.1 Transfer of Organic Liquid into Stationary Storage Tanks:

a. Comply with Section 303.1 of this rule.

b. Verify the proper connection to a vapor balance system or other vapor loss control systems prior to an organic liquid transfer at facilities that utilize a vapor balance system.

c. Verify the proper disconnection from a vapor balance system or other vapor loss control systems at the completion of an organic liquid transfer at facilities that utilize a vapor balance system.

d. Minimize spills during storage and transfer of organic liquids.

e. Clean up spills as expeditiously as practicable.

~~f. Cover all open organic liquid containers when not in use.~~

~~g. Minimize organic liquid sent to open waste collection systems that collect and transport organic liquid to reclamation and recycling devices, such as oil/water separators.~~

~~304.2 Transfer of Organic Liquids into Cargo Tanks:~~

~~a. Verify that the cargo tank has been demonstrated to be vapor tight.~~

~~b. Verify the proper connection to a vapor balance system or other vapor loss control systems prior to an organic liquid transfer.~~

~~c. Verify the proper disconnection from a vapor balance system or other vapor loss control systems at the completion of an organic liquid transfer.~~

~~d. Minimize spills during storage and transfer of organic liquids.~~

~~e. Clean up spills as expeditiously as practicable.~~

~~f. Cover all open organic liquid containers when not in use.~~

~~g. Minimize organic liquid sent to open waste collection systems that collect and transport organic liquid to reclamation and recycling devices, such as oil/water separators.~~

301 FEDERAL STANDARDS FOR ORGANIC LIQUID DISTRIBUTION (OLD) FACILITIES: An owner or operator of an OLD facility shall meet the applicable federal standards set forth in the New Source Performance Standards (NSPS) and the National Emission Standards For Hazardous Air Pollutants (NESHAP). The following federal standards and all accompanying appendices, excluding the authorities that cannot be delegated to the MCAQD, are adopted and incorporated by reference in Rule 360 (New Source Performance Standards) and Rule 370 (Federal Hazardous Air Pollutant Program) of these regulations. The applicable subparts include, but are not limited to the following:

301.1 40 CFR Part 60, Subpart K-Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after June 11, 1973, and Prior to May 19, 1978;

301.2 40 CFR Part 60, Subpart Ka-Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984;

301.3 40 CFR Part 60, Subpart Kb- Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984; and

301.4 40 CFR Part 63, Subpart EEEE- National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline).

301.5 All accompanying appendices, excluding the authorities that cannot be delegated to the MCAQD.

302 GENERAL REQUIREMENTS: An owner or operator of an OLD facility shall:

302.1 Maintain all containers, storage tanks, and equipment associated with the transfer and storage of organic liquids to be:

a. Leak free.

b. Vapor tight.

c. In good working order.

302.2 Install a permanent submerged fill pipe in all stationary storage tanks with a capacity greater than 250 gallons. Where because of government regulation, including, but not limited to, Fire Department codes, such 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.

a. A side-fill pipe that is greater than 18" from the bottom of the stationary storage tank shall remain submerged at all times. Documentation demonstrating the side-fill pipe is submerged at all times shall be made available to the Control Officer during the course of a site visit.

302.3 Minimize organic liquid spills.

302.4 Clean up spills as expeditiously as practicable.

302.5 Cover all open organic liquid containers and storage tanks when not in use.

302.6 Properly dispose of any VOC containing material.

302.7 Minimize the amount of organic liquid sent to waste collection systems that collect and transport organic liquid to reclamation and recycling equipment such as an oil/water separator.

303 CONTROL OF ORGANIC VAPORS DURING THE STORAGE OF AN ORGANIC LIQUID IN A STATIONARY STORAGE TANK:

303.1 **Control of Organic Vapors During the Storage of an Organic Liquid in a Fixed Roof Stationary Storage Tank:** The owner or operator of a fixed roof stationary storage tank shall:

a. **Fixed Roof Organic Liquid Stationary Storage Tank with a Capacity of 250 Gallons but less than 40,000 Gallons:** Equip the storage tank with one of the following:

(1) A pressure/vacuum vent valve that meets the following requirements:

(a) Is set per one of the following:

(i) Within ten percent (10%) of the tank's maximum, safe working-pressure.

(ii) At least at 0.5 psi (25.9 mm Hg).

(b) Is maintained in a vapor-tight condition except when the operating pressure exceeds the valve release setting.

(2) A closed vent system with a control device that meets the requirements of Section 304.

(3) An internal floating roof that meets the requirements of Section 303.2.

b. Fixed Roof Organic Liquid Stationary Storage Tank with a Capacity of 40,000 Gallons or Greater: Equip the storage tank with one of the following:

(1) A closed vent system with a control device that meets the requirements of Section 304.

(2) An internal floating roof that meets the requirements of Section 303.2.

c. Fixed Roof Organic Liquid Stationary Storage Tank with a Capacity Greater than 250 Gallons that Stores Liquids Having a Maximum True Vapor Pressure Greater Than 11 PSI (569 mm Hg):

(1) Maintain a working pressure in the stationary storage tank that is sufficient at all times to prevent organic vapor loss to the atmosphere; or

(2) Equip the stationary storage tank with a closed vent system with a control device that meets the requirements of Section 304.

303.2 Control of Organic Vapors During the Storage of an Organic Liquid in a Fixed Roof Stationary Storage Tank with an Internal Floating Roof: An internal floating roof stationary organic liquid storage tank and its appurtenances shall meet the following requirements:

a. An owner or operator utilizing an internal floating roof stationary organic liquid storage tank to control vapor loss and associated emission control equipment shall properly:

(1) Install the equipment.

(2) Maintain the equipment.

(3) Operate the equipment.

b. Organic liquid stationary storage tanks for which construction, reconstruction, or modification commenced after July 23, 1984, shall comply with all applicable requirements of the EPA New Source Performance Standard (NSPS), 40 CFR Part 60, Subpart Kb-Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. This federal standard is adopted and incorporated by reference in Rule 360 (New Source Performance Standards) of these regulations.

c. All stationary organic liquid storage tanks not subject to Section 303.2(b) shall comply with one of the following:

(1) 40 CFR Part 60, Subpart Kb, notwithstanding the type of facility and the date of tank construction, reconstruction or modification; or

(2) Have at least one continuous seal which completely covers the space between the roof edge and tank wall, except as provided in Section 303.2(d), and meet at least one of the following requirements:

(a) Have a contact-type roof resting completely on the liquid surface; or

(b) Have a liquid mounted seal; or

(c) Have a primary seal and a secondary seal.

d. Internal Floating Roof Openings:

(1) Floating roof tanks shall have no visible holes, tears, or other openings in the seal or in any seal fabric.

(2) All openings in a floating roof, except drains, shall be equipped with a cover, seal, or lid.

(3) All covers, seals, and lids shall be in a closed position at all times, except when they are in actual use.

(4) Automatic bleeder vents shall be closed at all times, except when the roof is floated off of or landed onto the roof leg supports.

(5) Rim vents, if provided, shall be set to open only:

(a) When the roof is being floated off the roof leg supports; or

(b) At the manufacturer's recommended setting.

(6) Shall have a slit fabric cover that covers at least 90 percent (90%) of the sample well opening. [40 CFR § 60.112b(a)(1)(vii)]

(7) The accumulated area of gaps between a tank's wall and primary seal shall not exceed ten square inches per foot (10 in^2/ft.) of tank diameter.

(8) The width of any portion of any gap shall not exceed one and one-half inches (1½").

303.3 Control of Organic Vapors During the Storage of an Organic Liquid in an External Floating Roof Stationary Storage Tank: An external floating roof stationary organic liquid storage tank and its appurtenances shall meet the following requirements:

a. An owner or operator utilizing an external floating roof stationary storage tank to control vapor loss shall properly:

(1) Install the equipment.

(2) Maintain the equipment.

(3) Operate the equipment.

b. External Floating Roof Requirements: The floating roof shall:

(1) Rest on and be supported by the surface of the liquid contents unless exempted in Section 103.3 (Floating Roof).

(2) Be equipped with a continuous primary seal to close the space between the roof eave and tank wall. The primary seal shall meet the requirements of Section 303.3.c (Primary Seal Requirements).

(3) Have a continuous secondary seal which is of a design that is in accordance with accepted standards of the organic liquids industry. The secondary seal shall meet the requirements of Section 303.3.d (Secondary Seal Requirements).

c. Primary Seal Requirements:

(1) The accumulated area of gaps between a tank's wall and primary seal shall not exceed ten square inches per foot (10 in^2/ft.) of tank diameter.

(2) The width of any portion of any gap shall not exceed one and one half inches (1½").

d. Secondary Seal Requirements:

(1) The secondary seal shall be:

(a) Rim-mounted.

(b) Not attached to the primary seal.

(c) Installed above the primary seal so that it completely covers the space between the roof edge or primary seal and the tank wall.

(2) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 1.0 square inch per foot (1 in^2/ft.) of tank diameter. Determinations of gap area shall only be made at the point(s) where the gaps exceed one eighth inch (1/8"). The width of any portion of any gap shall not exceed one half inch (1/2"). [40 CFR § 60.113b(b)(4)(ii)]

e. External Floating Roof Openings:

(1) Floating roof tanks shall have no visible holes, tears, or other openings in the seal or in any seal fabric.

(2) All openings, except drains, shall be equipped with a cover, seal, or lid.

(3) All covers, seals, and lids shall be in a closed position at all times, except when they are in actual use.

(4) Automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports.

(5) Rim vents, if provided, shall be set to open only:

(a) When the roof is being floated off the roof leg supports; or

(b) At the manufacturer's recommended setting.

304 CLOSED VENT SYSTEM WITH A CONTROL DEVICE: A closed vent system with a control device used to control vapors from an organic liquid stationary storage tank shall meet the following requirements:

304.1 Reduce the inlet concentration of VOCs to the control device by at least 95 percent by weight.

304.2 Vent the displaced vapors only to the closed vent system with a control device.

304.3 Maintain the system to be vapor-tight except for the designated exhaust.

304.4 Prevent the vapor processing capacity from being exceeded.

304.5 Maintain any diaphragms used in vapor storage tanks to be vapor-tight.

304.6 Equip any tank gauging or sampling device on a tank with a vapor-tight cover which shall be closed at all times except during gauging or sampling procedures.

304.7 Maintain all pressure-vacuum vent valves in a vapor-tight condition except when the operating pressure exceeds the valve release setting.

305 TRANSFER OF ORGANIC LIQUIDS:

305.1 General Requirements for the Transfer of Organic Liquids: The owner or operator of an OLD facility and the owner or operator of a cargo tank shall have the responsibility to:

a. Ensure all parts of the transfer of the organic liquid are observed at all times.

b. Transfer organic liquids using submerged fill.

c. Transfer organic liquids in a manner that:

(1) Prevents overfills.

(2) Prevents excess organic liquid drainage.

d. Immediately discontinue the transfer of organic liquid if:

(1) A liquid leak is observed.

(2) A vapor leak is observed.

e. Prevent excess organic liquid leak drainage at facilities that use a vapor balance system or a closed vent system by:

(1) Verifying the proper connection to the system.

(2) Verifying the proper disconnection from the system.

305.2 Transfer of Organic Liquids Into or Out of Cargo Tanks: The owner or operator of an OLD facility shall:

a. Ensure gauge pressure does not exceed 18 inches (18") of water (33.6 mm Hg) and vacuum pressure does not exceed six inches (6") of water (11.2 mm Hg) in the cargo tank during the transfer of organic liquids.

b. Demonstrate potential leak sources are vapor tight by using the test procedure described in Section 501 (Monitoring for Leaks).

305.3 Transfer of Organic Liquids at an OLD Facility with an Organic Liquid Throughput Less than 600,000 Gallons Per Month: The owner or operator of an OLD facility shall utilize one of the following vapor loss control methods during the transfer of organic liquids into or out of a stationary storage tank:

a. A vapor balance system.

b. A closed vent system with a control device.

305.4 Transfer of Organic Liquids at an OLD Facility with an Organic Liquid Throughput Greater than 600,000 Gallons Per Month or Where Organic Liquid is Received Via Pipeline: The owner or operator of an OLD facility shall:

a. Utilize a closed vent system with a control device which reduces the emissions of VOCs to not more than 0.08 pounds per 1000 gallons (0.08 lb. VOC/1000 gal) of organic liquid transferred.

b. Verify the cargo tank is vapor tight by one or more of the following:

(1) The cargo tank is currently certified in accordance with the U.S. Department of Transportation (DOT) pressure test requirements in 49 CFR Part 180, Continuing Qualification and Maintenance of Packagings. [40 CFR § 63.2346(4)(ii)]

(2) The cargo tank is currently certified in accordance with the U.S. Department of Transportation (DOT) pressure test requirements in 49 CFR Part 173.31 (Use of Tank Cars). [40 CFR § 63.2346(a)(4)(ii)]

(3) The cargo tank displays a valid Maricopa County Vapor Tightness Certification decal.

305.5 **Transfer of Organic Liquids From a Cargo Tank Into a Cargo Tank:** The owner or operator of a cargo tank shall utilize a vapor balance system during the loading of organic liquid from an organic liquid cargo tank into an organic liquid cargo tank.

305.6 **Switch Loading:** The owner or operator of an OLD facility shall use a closed vent system with a control device that:

a. Reduces the inlet concentration of VOCs to the control device by at least 95 percent by weight.

b. Reduces VOC emissions to not more than 0.08 pounds VOC per 1000 gallons (0.08 lbs VOC/1000 gal) of liquid loaded.

306 **EQUIPMENT REPAIR AND RETESTING:** The owner or operator of any piping, hoses, equipment, and devices used to collect, transport, store, and/or process organic liquid and/or vapors that exceeds the standards of this rule, shall:

306.1 **Exceedance Notification Schedule:** Notify the Control Officer:

a. By phone within 24 hours of such exceedance; and

b. Submit written notice:

(1) Within 72 hours from the date of discovery documenting the exceedance of the standards of this rule. The written notice may be submitted by mail, email, facsimile, commercial delivery, or hand delivery.

(2) To include:

(a) The date and time of the exceedance.

(b) A description of the exceedance.

(c) Steps taken to mitigate the exceedance.

306.2 **Corrective Action Schedule:** Observe the following time schedule for corrective action:

a. Concentrations at or above the lower explosive limit shall be brought into compliance within 24 hours of detection.

b. Leak concentrations exceeding 10,000 ppmv when calibrated with methane, or 1/5 the lower explosive limit of the calibration gas, shall be brought into compliance within five (5) days of detection.

c. Except as the Control Officer otherwise specifies, a vapor leak source shall be tested after presumed leak-correction within fifteen (15) minutes of recommencing use. If vapor tight standards are exceeded in this test, the use of the faulty equipment shall be discontinued until correction is verified by retesting.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

~~401 ORGANIC LIQUID (NON-GASOLINE) STATIONARY STORAGE TANK INSPECTIONS~~

~~401.1 Inspections of External Floating Roof Stationary Storage Tanks:~~

~~a. The owner or operator of any external floating roof stationary storage tank subject to this rule shall visually inspect the tank and seals at least once every six (6) months to determine ongoing compliance with the applicable standards of this rule pertaining to the tank. Determinations of secondary seal gap area on external floating roof stationary storage tanks shall be made only once per year. Records of these inspections shall be maintained and shall be made available to the Control Officer upon request.~~

~~b. Annual and Empty Tank Inspection: The owner or operator of any stationary storage tank which uses an external floating roof to meet the vapor loss control system requirements of this rule shall conduct a visual inspection each time the external floating roof stationary storage tank is emptied and degassed or at least once a year. The visual inspection shall include all of the following:~~

~~(1) Verify the secondary seal covers the space between the roof edge and the tank.~~

~~(2) Measure the gaps between the tank wall and the secondary seal. The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm^2 (3.29 square inches) per meter of tank diameter and the width of any portion of any gap shall not exceed 1.27 cm (0.2 inch).~~

~~(3) Verify there are no holes, tears, or other openings in the seal or seal fabric.~~

~~c. Five-Year, Full Circumference Inspections of External Floating Roof Stationary Storage Tanks: The owner or operator of any external floating roof stationary storage tank of 20,000 gallons (75,700 l) or more storing organic liquids (non-gasoline) shall conduct a complete inspection of the external floating roof tank each time the tank is emptied and degassed or at least once every five (5) years. This inspection can be performed while the tank is in service. The inspection shall include all of the following:~~

(1) Perform a complete inspection of the organic liquid (non-gasoline) storage tank as described in Section 401.1(a) of this rule.

(2) Perform a complete inspection of the primary seal and floating roof.

(3) Measure gap areas and maximum gap. The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 21.2 cm^2 (39.9 square inches) per meter of tank diameter and the width of any portion of any gap shall not exceed 3.81 cm (0.59 inch).

401.2 Inspections of Internal Floating Roof Stationary Storage Tanks with a Fixed Covering:

a. The owner or operator of any internal floating roof stationary storage tank subject to this rule shall visually inspect the tank and seals at least once every six (6) months to determine ongoing compliance with the applicable standards of this rule pertaining to the tank. Records of these inspections shall be maintained and shall be made available to the Control Officer upon request.

b. The owner or operator of any stationary storage tank which uses an internal floating roof to meet the vapor loss control system requirements of this rule shall conduct a visual inspection each time the internal floating roof stationary storage tank is emptied and degassed or at least once a year. The visual inspection can be made through manholes or rood hatches and shall include all of the following:

(1) The internal floating roof shall not have an accumulation of liquid on the roof.

(2) The seal shall be attached.

(3) The seal shall not have any holes or tears.

401.3 Five Year Inspection and Empty Tank Inspection: The owner or operator of any stationary storage tank which uses an internal floating roof to meet the vapor loss control system requirements of this rule shall conduct a visual inspection each time the internal floating roof stationary storage tank is emptied and degassed or at least once every five (5) years. The visual inspection shall include all of the following:

a. The internal floating roof shall be free of any defects.

b. The primary seal shall not have any holes, tears or other openings.

c. The secondary seal if one is in service, shall not have any holes, tears or other openings.

d. Gaskets shall prevent liquid surfaces from exposure to atmosphere.

e. The slotted membrane shall not have more than a ten percent (10%) open area.

402 MONTHLY ORGANIC LIQUID TRANSFER EQUIPMENT LEAK INSPECTIONS: The owner or operator shall perform monthly inspections, while organic liquid is being transferred, for liquid and vapor leaks and for faulty equipment. Monthly inspections leak detection methods can include one or more of the following methods:

402.1 Incorporation of sight, sound, smell and/or touch.

~~402.2 Use of a combustible gas detector (CGD) or organic vapor analyzer (OVA) pursuant to Section 501 of this rule.~~

~~402.3 Method 21-Determination of Volatile Organic Compound Leaks, Alternative Screening Procedure 8.3.3, use of a soap solution pursuant to Section 501 of this rule.~~

~~402.4 Use of an optical gas imaging instrument calibrated according to manufacturing specifications and used according to Section 501 of this rule.~~

~~403 ORGANIC LIQUID (NON-GASOLINE) STORAGE TANK INSPECTIONS-AVAILABILITY TO CONTROL OFFICER:~~

~~403.1 Annual Inspections of External Floating Roof Tanks: The owner or operator of any stationary storage tank which uses an external floating roof to meet the vapor loss control system requirements of this rule shall make the primary seal envelope and the secondary seal available for unobstructed inspection by the Control Officer on an annual basis. The primary seal envelope shall be made available for inspection at a minimum of four (4) locations selected along its circumference at random by the Control Officer. If the Control Officer detects a violation as a result of any such inspection, the Control Officer may require such further unobstructed inspection of the seals as may be necessary to determine the seal condition for its entire circumference.~~

~~403.2 Annual Inspections of Internal Floating Roof Tanks: The owner or operator of any stationary storage tank which uses an internal floating roof to meet the vapor loss control system requirements of this rule shall make the entire tank including the internal floating roof available for inspection prior to filling. The internal floating roof shall be made available for visual inspection through the manholes or roof hatches on the fixed covering on an annual basis.~~

~~403.3 Five-Year, Full Circumference Inspections: The owner or operator of a floating roof stationary storage tank of 20,000 gallons (75,700 l) or more storing organic liquids (non-gasoline) shall make the primary seal envelope available for inspection by the Control Officer for its full length every five (5) years. This inspection can be performed while the tank is in-service. However, if the secondary seal is removed or if the tank is drained and cleaned by the owner or operator for any reason, it shall be made available for such inspection at that time. The owner or operator shall provide notification to the Control Officer no less than seven (7) working days prior to removal of the secondary seal.~~

401 INSPECTION OF A FIXED ROOF ORGANIC LIQUID STATIONARY STORAGE TANK:

401.1 Inspection of a Fixed Roof Stationary Organic Liquid Storage Tank Without an Internal Floating Roof: The owner or operator shall conduct a visual inspection of the tank at least once every six (6) months to ensure the stationary storage tank is:

a. Leak free.

b. Vapor tight.

c. In good working order.

401.2 **Inspection of a Fixed Roof Stationary Organic Liquid Storage Tank with an Internal Floating Roof:** The owner or operator shall conduct a visual inspection, through manholes or roof hatches if necessary, at the following frequencies to verify the following:

a. Six (6) Month Inspection:

(1) There are no visible holes, tears, or other openings in the seal or in any seal fabric.

(2) No visible liquid is on top of the floating roof.

(3) All covers, seals, and lids are in closed positions at all times except when they are in actual use.

(4) Automatic bleeder vents are closed at all times except when the roof is floated off of or landed onto the roof leg supports.

(5) The tank is in compliance with the rule.

b. Annual Inspection, not to exceed 12 months between inspections:

(1) No visible liquid is on top of the floating roof.

(2) All seals are attached.

(3) The primary seal does not have any holes, tears, or other openings.

(4) The secondary seal, if one is in service, does not have any holes, tears, or other openings.

c. Five (5) Year Inspection and Empty Tank Inspection: Each time the internal floating roof stationary storage tank is emptied and degassed or at least once every five (5) years, not to exceed 60 months between inspections.

(1) The internal floating roof does not have any defects.

(2) The primary seal does not have any holes, tears, or other openings.

(3) The secondary seal, if one is in service, does not have any holes, tears, or other openings.

(4) The accumulated area of gaps between the wall of the stationary storage tank and primary seal comply with the requirements in Section 303.2.d(7).

(5) The width of any portion of any gap complies with the requirements in Section 303.2.d(8).

(6) Gaskets prevent liquid surfaces from exposure to atmosphere.

(7) The slotted membrane does not have more than a ten percent (10%) open area.

402 **INSPECTION OF AN EXTERNAL FLOATING ROOF STATIONARY STORAGE TANK:** The owner or operator shall conduct inspections at the following frequencies to verify the following:

402.1 Six (6) Month Inspection:

a. There are no visible holes, tears, or other openings in the seal or in any seal fabric.

b. No visible liquid is on top of the floating roof.

c. The floating roof has a continuous primary seal to close the space between the roof eave and tank wall.

d. The floating roof has a continuous secondary seal.

e. The tank is in compliance with the rule.

402.2 Annual Inspection, not to exceed 12 months between inspections:

a. The secondary seal covers the space between the roof edge and the tank.

b. The gaps between the tank wall and the secondary seal comply with the requirements in Section 303.3.d (Secondary Seal Requirements).

c. There are no holes, tears, or other openings in the seal or seal fabric.

402.3 Five (5) Year Inspection and Empty Tank Inspection: Each time the external floating roof stationary storage tank is emptied and degassed or at least once every five (5) years, not to exceed 60 months between inspections. This inspection can be conducted while the tank is in service.

a. Measurements of the gaps between the primary seal and the tank wall comply with the requirements in Section 303.3.c (Primary Seal Requirements).

b. Measurements of the gaps between the secondary seal and the tank wall comply with the requirements in Section 303.3.d (Secondary Seal Requirements).

c. There are no holes, tears, or other openings in the seal or seal fabric.

d. The external floating roof does not have any defects.

403 EQUIPMENT LEAK DETECTION INSPECTIONS: The owner or operator shall conduct equipment leak detection inspections at the following frequencies:

403.1 Monthly Leak Detection Inspections: Inspect for liquid leaks, vapor leaks, and faulty equipment while the organic liquid is being transferred. Monthly inspection leak detection methods shall include one or more of the following methods as found in Section 501.1 (Identifying a Potential Vapor Leak):

a. Incorporation of sight, sound, or smell.

b. Method 21-Determination of Volatile Organic Compound Leaks, Alternative Screening Procedure 8.3.3, use of a soap solution.

c. Use of an optical gas imaging instrument.

d. Use of a combustible gas detector (CGD).

e. Use of an organic vapor analyzer (OVA).

403.2 Annual Leak Detection Inspections (not to exceed 12 months between inspections): Inspect for liquid leaks, vapor leaks, and for faulty equipment.

Conduct vapor leak inspections following procedures in Section 501.2 (Determining Vapor Tight Status), except that EPA Method 21 shall be used to test for leaks from a closed vent system and control device and its associated piping outside the organic liquid transfer area. Equipment shall conform to the specifications of those test methods cited in Section 504 (Compliance Determination – Test Methods Incorporated by Reference).

403.3 **Leak Detected:** If a leak is detected, follow the corrective action in Section 306 (Equipment Repair and Retesting).

404 **ORGANIC LIQUID STORAGE TANK AND EQUIPMENT LEAK DETECTION INSPECTIONS – AVAILABILITY TO CONTROL OFFICER:** The owner or operator shall notify the Control Officer of the date, time, and location of the inspections and tests in Sections 404.1, 404.2, and 404.3 no less than seven (7) working days prior to the inspection or test date. The Control Officer shall at their discretion observe the inspection or test.

404.1 **Inspection of a Fixed Roof Organic Liquid Storage Tank with an Internal Floating Roof:** The owner or operator shall make the following parts of the tank available for inspection by the Control Officer at the specified frequencies:

a. The entire tank, including the internal floating roof, prior to initial filling of the storage tank.

b. The internal floating roof for visual inspection through the manholes or roof hatches on an annual basis.

c. The primary seal envelope for its full length every five (5) years on a tank with a capacity of 20,000 gallons or more. This inspection can be performed while the tank is in-service.

d. The primary seal envelope for its full length on a tank with a capacity of 20,000 gallons or more any time the secondary seal is removed or if the tank is drained and cleaned by the owner or operator for any reason.

404.2 **Inspection of an External Floating Roof Stationary Organic Liquid Storage Tank:** The owner or operator shall make the following parts of the tank available for inspection by the Control Officer at the specified frequencies:

a. The primary seal envelope and the secondary seal for unobstructed inspection on an annual basis. The primary seal envelope shall be made available for inspection at a minimum of four (4) locations selected along its circumference at random by the Control Officer. If the Control Officer detects a violation as a result of any such inspection, the Control Officer may require such further unobstructed inspection of the seals as may be necessary to determine the seal condition for its entire circumference.

b. The primary seal envelope for its full length every five (5) years on a tank with a capacity of 20,000 gallons or more. This inspection can be performed while the tank is in-service.

c. The primary seal envelope for its full length on a tank with a capacity of 20,000 gallons or more any time the secondary seal is removed or if the tank is drained and cleaned by the owner or operator for any reason.

404.3 **Equipment Leak Detection Tests:** The owner or operator shall allow the Control Officer to observe all annual equipment leak detection tests.

~~404~~ **405** **OTHER AGENCIES' REQUIREMENTS:** Compliance with this rule does not relieve or otherwise affect the owner's or operator's obligation to comply with any other applicable federal, state, or local legal requirement including, but not limited to, rules promulgated by Arizona Department of Agriculture-Weights and Measures Services Division, local fire department codes, and local zoning ordinances.

SECTION 500 – MONITORING AND RECORDS: In addition to any federal testing, monitoring, and recording requirements, an owner or operator of an OLD shall comply with the following:

501 MONITORING FOR LEAKS:

~~501.1 Combustible Gas Detector (CGD) or Organic Vapor Analyzer (OVA) Test Procedure: During the transfer of organic liquids into a cargo tank, the peripheries of all potential sources of leakage at the organic liquid distribution facility are checked with a CGD or OVA as follows:~~

~~a. Calibration: Within four (4) hours prior to monitoring, the CGD or OVA shall be properly calibrated for a 20 percent lower explosive limit (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 monthly inspections leak detection tests required by Section 402 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 organic liquid vapor is detected, that fact shall be entered into the record.~~

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

~~a. Spray a soap solution over all potential leak sources. The soap solution may be a commercially available leak detection solution or may be prepared using concentrated detergent and water. A pressure sprayer or squeeze bottle may be used to dispense the solution.~~

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

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

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

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

~~501.4 Any instrument used for the measurement of organic compound concentration shall be calibrated according to manufacturer's instructions or in accordance with EPA Reference Method 21 as incorporated by reference in Maricopa County Air Pollution Control Regulations, Appendix G, Incorporated Materials.~~

501.1 Identifying a Potential Vapor Leak: Equipment leak detection inspections, as required in Section 400 (Administrative Requirements), shall be conducted using one or more of the test procedures listed below to identify a potential vapor leak. If a potential vapor leak is detected, refer to Section 501.2 (Determining Vapor Tight Status) to determine a vapor tight status.

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

b. Method 21 – Determination of Volatile Organic Compound Leaks, Alternative Screening Procedure 8.3.3:

(1) Spray a soap solution over the potential leak source. 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.

(2) Observe the potential leak site to determine if any bubbles are formed. If no bubbles are observed, the source is presumed to have no detectable vapor leak.

c. 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.

d. 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 501.2 (Determining Vapor Tight Status) to identify a potential leak.

501.2 **Determining Vapor Tight Status:** An owner, operator, or Control Officer shall follow the test procedure below to determine the vapor tight status of any piping, hoses, equipment, and devices used to collect, transport, store, or process organic vapors at an OLD facility.

~~501.1~~ **a. Combustible Gas Detector (CGD) or Organic Vapor Analyzer (OVA)-Test Procedure:** 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.

(1) Calibration: Calibrate the detector within four (4) hours prior to monitoring, as follows:

(a) The CGD shall be:

(i) Calibrated with a gas specified by the manufacturer; and

(ii) Used according to the manufacturer's instructions.

(b) The OVA shall be properly calibrated to 10,000 ppm as methane.

(2) Probe Distance: The probe inlet shall be:

(a) At the surface of the potential leak source when searching for leaks.

(b) At the surface of the leak source when the highest detector reading is being determined for a discovered leak.

(c) 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.

(3) 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.

(4) 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.

(5) Wind: Wind shall be blocked as much as possible from the space being monitored. Monitoring results shall be valid only when wind speed in the space being monitored is five miles per hour (5 mph) or less.

(6) 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 organic liquid vapor is detected, that fact shall be entered into the record.

b. Vapor Leak Detected: If a vapor leak is detected, follow the corrective action in Section 306 (Equipment Repair and Retesting).

~~502 TVP RECORDS: The owner or operator of an organic liquid distribution facility shall keep accurate records listed in Section 502 of this rule.~~

~~502.1 An owner or operator shall keep accurate records of organic liquids stored in each stationary storage tank subject to this rule.~~

~~502.2 The temperature of the contents of each stationary storage tank subject to this rule shall be determined and recorded using at least one of the following methods:~~

~~a. Take the actual temperature of the contents of the stationary storage tank each week and record the weekly temperature of the contents of each stationary storage tank.~~

~~b. Obtain the maximum local monthly average ambient temperature as reported by the National Weather Service and record monthly for each stationary storage tank.~~

~~c. Record monthly AP 42, Section 7.1 emission estimation procedures for each stationary storage tank.~~

~~502.3 The TVP of each organic liquid in each stationary storage tank subject to this rule shall be recorded at least once each month.~~

502 RECORDKEEPING AND REPORTING REQUIREMENTS: The owner or operator of an OLD facility shall:

502.1 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 Storage Tank Inspection and Maintenance Records: Maintain accurate records for each storage tank that include, but are not limited to the following:

a. Certifications.

b. Testing conducted.

c. Inspections performed.

d. Repair work conducted.

502.3 Maximum True Vapor Pressure:

a. Keep accurate records of organic liquids stored in each stationary storage tank.

b. Determine the temperature of the contents of each stationary storage tank by using at least one of the following methods:

(1) Take the actual temperature of the contents of the stationary storage tank each week and record the weekly temperature of the contents of each stationary storage tank.

(2) Obtain the maximum local monthly average ambient temperature as reported by the National Weather Service and record monthly for each stationary storage tank.

c. Record the maximum true vapor pressure of each organic liquid in each stationary storage tank at least once each month.

~~503 LEAK INSPECTION RECORDS: The owner or operator of an organic liquid distribution facility shall keep a log documenting each leak inspection. The log shall include the items listed below:~~

~~503.1 The owner or operator shall sign the log at the completion of each monthly inspection for equipment leaks.~~

~~503.2 Each monthly inspection log shall contain a list, summary description or diagram(s) showing the location of all equipment at the organic liquid distribution facility.~~

~~503.3 Each monthly inspection log shall include any maintenance that occurred.~~

~~503.4 Each annual inspection log shall include any maintenance that occurred.~~

~~503.5 These records shall be kept a minimum of five (5) years.~~

502.4 Leak Inspection Records: Keep a log documenting each leak inspection that includes the items listed below:

a. Monthly:

(1) A list, summary description, or diagram(s) showing the location of all of the equipment at the OLD facility.

(2) A list, summary description, or diagram(s) identifying the equipment that was inspected for leaks.

(3) Any maintenance that occurred.

b. Annually: Any maintenance that occurred.

502.5 Throughput Records: Record the total monthly throughput of organic liquid by the end of the following month.

~~503.6~~ **502.6 Additional Record Requirements** ~~for Use of~~ **When Using an Optical Gas Imaging** ~~Instruments~~ **Instrument:** An owner or operator using an optical gas imaging instrument for leak inspections shall date and time stamp the video records of every monitoring event where an optical gas imaging instrument was used.

502.7 Disposal Records of VOCs: Maintain records of the type, amount, and method of disposing of VOC containing materials on each day of disposal.

~~504 COMPLIANCE INSPECTIONS: The Control Officer, at any time, may monitor a cargo tank's vapor collection/processing system, an organic liquid transfer rack's vapor loss control system, an organic liquid distribution facility, or a vapor collection/processing system for vapor leaks by the test methods described in Section 506 of this rule.~~

503 COMPLIANCE INSPECTIONS: Where applicable, the Control Officer may at any time inspect the following for liquid or vapor leaks:

503.1 An OLD facility.

503.2 The loading of an organic liquid.

503.3 A cargo tank's vapor balance system during the loading of an organic liquid.

503.4 An organic liquid loading rack.

503.5 A closed vent system with a control device.

~~505 RECORDS RETENTION: Records and information required by this rule shall be retained for at least five (5) years.~~

~~506~~ **504 COMPLIANCE DETERMINATION-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 incorporated by reference in Appendix G of the Maricopa County Air Pollution Control Regulations. Alternative test methods as approved by the Administrator or other EPA-approved test methods may be used upon prior written approval from the Control Officer. When more than one test method is permitted for the same determination, an exceedance under any method will constitute a violation. Copies of test methods referenced in this section are available at the Maricopa County Air Quality Department.

~~506.1~~ **504.1 EPA Test Methods:**

a. EPA Method 2A-Direct Measurement of Gas Volume through Pipes and Small Ducts.

b. EPA Method 18-Measurement of Gaseous Organic Compound Emissions by Gas Chromatography.

c. EPA Method 21-Determination of Volatile Organic Compound Leaks.

d. EPA Method 21-Determination of Volatile Organic Compound Leaks, Alternative Screening Procedure 8.3.3.

e. EPA Method 25A-Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer.

f. EPA Method 25B-Determination of Total Gaseous Organic Concentration Using a Nondispersive Infrared Analyzer.

g. EPA Method 27-Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure Vacuum Test.

h. Optical Gas Imaging: Alternative Work Practice for Monitoring Equipment Leaks, 40 CFR § 60.18(g), (h), and (i). ~~An owner or operator may use an Optical Gas Imaging instrument to comply with the alternative work practice requirements in 40 CFR 40.18(g) instead of using the 40 CFR 60, Appendix A-7, Method 21 monitor to identify leaking equipment.~~

i. AP 42, Fifth Edition, Volume I, Chapter 7: Liquid Storage Tanks, November 2006, errata August 2012.

~~506.2~~ **504.2 EPA Approved California Air Resources Board (CARB)-Test Procedure:**

a. TP-201.1E Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, October 8, 2003.

~~506.3~~ **504.3 EPA Approved ASTM Standards:**

a. ASTM 323-06, Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method).

~~a.~~ **b.** ASTM D2879-83, ASTM D2879-96, ASTM D2879-97, or ASTM D2879-10 Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope.

~~b.~~ **c.** ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry.

~~506.4 American Petroleum Institute: API STD 650 Welded Tanks for Oil Storage, Twelfth Edition, Includes Errata 1 (2013), Errata 2 (2014), and Addendum 1 (2014).~~