Technical Support Document

EPA-R06-OAR-2020-0437

The purpose of this Technical Support Document (TSD) is to evaluate the latest revisions to the Oklahoma State Implementation Plan (SIP) submitted to the Environmental Protection Agency (EPA) from the Oklahoma Secretary of Energy and Environment on behalf of Oklahoma Department of Environmental Quality (ODEQ), by letter dated May 7, 2020 (May 7, 2020, Submittal). We received the submittal on May 15, 2020. The TSD concerns proposed revisions to the Oklahoma SIP, as contained in Subchapter 39 Emission of Volatile Organic Compounds (VOCs) in Nonattainment Areas and Former Nonattainment Areas of the Oklahoma Administrative Code (OAC) Title 252, Chapter 100 Air Pollution Control (OAC:252:100).

The revisions to Subchapters 2 and Appendix Q of OAC 252:100 in the May 7, 2020, Submittal are air permit-related provisions and are not evaluated here; those provisions will be acted upon separately in a different rulemaking action.

See Appendix A: Cover letter for the 2019 Revisions to the Oklahoma SIP; Appendix B: EPA SIP Approved version of Subchapter 39, Sections 4, 16, 40, and 41; and, Appendix C – Oklahoma-adopted version of Subchapter 39, Sections 1 through 42 at the end of this document for additional information. The full submittal is also available in the docket for this action. There is no Confidential Business Information (CBI) in this submittal. The FDMS docket ID No. for this project is EPA-R06-OAR-2020-0437.

A State proposed rulemaking action normally will go through more than one revision and Air Quality Council hearings (iterations) until it is voted on, approved and eventually adopted. The final versions of the Subchapters adopted, published, and submitted as a revision to Oklahoma SIP are evaluated here.

Below we have compared the EPA-approved version of the affected provisions of Subchapter 39 to the May 7, 2020, version of the rule below followed by an evaluation of each section.

OAC 252:100-39-4. Exemptions	
December 29, 2008 (73 FR 79400), effective February 27, 2009	252:100-39-4. Exemptions VOCs with vapor pressures less than 1.5 pounds per square inch absolute (psia) under actual storage conditions are exempt from 252:100-39-16 through 252:100-39-18, 252:100-39-30, 252:100-39-41, and 252:100-48.1
May 2019 Submittal	252:100-39-4. Exemptions VOCs with vapor pressures less than 1.5 pounds per square inch absolute (psia) under actual storage conditions are exempt from 252:100-39-16 through 252:100-39-18, 252:100-39-30, and 252:100-39-41.
Redline	252:100-39-4. Exemptions VOCs with vapor pressures less than 1.5 pounds per square inch absolute (psia) under actual storage conditions are exempt from 252:100-39-16 through 252:100-39-18, 252:100-39-30, 252:100-39-41~~., and 252:100-48.1~~
2020 EPA proposed SIP	252:100-39-4. Exemptions VOCs with vapor pressures less than 1.5 pounds per square inch absolute (psia) under actual storage conditions are exempt from 252:100-39-16 through 252:100-39-18, 252:100-39-30, and 252:100-39-41.

Evaluation: ODEQ is proposing to amend 252: 100-39-4, Exemptions, to remove an incorrect citation to a revoked rule. The rulemaking is to remove an incorrect citation to a revoked rule. A comparison of the two versions and a redline version is available above. The revision is ministerial in nature. Also see Page 1594 of the Oklahoma Register (Volume 36, Number 24), September 3, 2019. Examination of the

record indicates that the submitted revision to Subchapter 39, Section 4 is proper and enhances compliance.

We recommend proposed approval of the May 7, 2020 revision to 252:100-39-4.

OAC 252:100-39-16 Petroleum refinery process unit turnaround	
EPA approved December 29, 2008 (73 FR 79400), effective February 27, 2009	252:100-39-16(b)(4). Scheduled refinery unit turnaround may be accomplished without the controls specified in 252:100-39-16(b)(1) and 252:100-39-16(b)(2) during non-oxidant seasons provided the notification to the Division Director as required in 252:100-39-16(b)(3) specifically contains a request for such an exemption. The non-oxidant season is from November 1 through March 31.
May 2019 Submittal	252:100-39-16(b)(4). Scheduled refinery unit turnaround may be accomplished without the controls specified in 252:100-39-16(b)(1) and 252:100-39-16(b)(2) during non-oxidant seasons provided the notification to the Division Director as required in 252:100-39-16(b)(3) specifically contains a request for such an exemption. The non-oxidant season is from December 1 through the last day of February.
Redline	252:100-39-16(b)(4). Scheduled refinery unit turnaround may be accomplished without the controls specified in 252:100-39-16(b)(1) and 252:100-39-16(b)(2) during non-oxidant seasons provided the notification to the Division Director as required in 252:100-39-16(b)(3) specifically contains a request for such an exemption. The non-oxidant season is from ~~November 1 through March 31~~ December 1 through the last day of February.
2020 EPA proposed SIP	252:100-39-16(b)(4). Scheduled refinery unit turnaround may be accomplished without the controls specified in 252:100-39-16(b)(1) and 252:100-39-16(b)(2) during non-oxidant seasons provided the notification to the Division Director as required in 252:100-39-16(b)(3) specifically contains a request for such an exemption. The non-oxidant season is from December 1 through the last day of February.

Evaluation: The ODEQ is proposing to amend 252: 100-39-16, to update the non-oxidant season from November1 through March 31 to December 1 through the last day of February. A comparison of the two versions and a redline version is available above. Also see Page 44 of the Oklahoma Register (Volume 36, Number 6), December 3, 2018. This revision is consistent with the Oklahoma ozone monitoring season of March through November listed in Table D-3 titled "Ozone Monitoring Season by State" of 40 CFR 58, Appendix D[1]. Furthermore, the environment will likely benefit from shortening duration of the non-oxidant season from 5 months (November 1 through March 31) to 3 months (December 1 through the last day of February) allowed for conducting scheduled refinery unit turnaround-related activities. Examination of the record indicates that the submitted revision to Subchapter 39, Section 16 is proper, the revisions will strengthen the SIP and enhance compliance.

We recommend proposed approval of the May 7, 2020, revision to 252:100-39-16.

OAC 252:100-39-40. Cutback asphalt (paving)	
EPA approved December 29, 2008	252:100-39-40(b) Requirements. No owner, operator and/or contractor shall prepare or apply cutback liquefied asphalt without the prior written consent of

[1] Table D-3 of 40 CFR 58, Appendix D is located in Appendix D of this document or at: https://www.ecfr.gov/cgi-bin/retrieveECFR?n=40y6.0.1.1.6#sp40.6.58.c

(73 FR 79400), effective February 27, 2009	the Division Director. Such consent may be granted during Oklahoma's non-oxidant season, i.e., November 1 through March 31.
May 2019 Submittal	252:100-39-40(b) Requirements. No owner, operator and/or contractor shall prepare or apply cutback liquefied asphalt without the prior written consent of the Division Director. Such consent may be granted during Oklahoma's non-oxidant season, i.e., December 1 through the last day of February.
Redline	252:100-39-40(b) Requirements. No owner, operator and/or contractor shall prepare or apply cutback liquefied asphalt without the prior written consent of the Division Director. Such consent may be granted during Oklahoma's non-oxidant season, i.e., ~~November 1 through March 31~~ December 1 through the last day of February.
2020 EPA proposed SIP	252:100-39-40(b) Requirements. No owner, operator and/or contractor shall prepare or apply cutback liquefied asphalt without the prior written consent of the Division Director. Such consent may be granted during Oklahoma's non-oxidant season, i.e., December 1 through the last day of February.

Evaluation: The ODEQ is proposing to amend 252: 100-39-40, to update the non-oxidant season from November 1 through March 31 to December 1 through the last day of February. A comparison of the two versions and a redline version is available above. Also see Page 705 of the Oklahoma Register (Volume 35, Number 24), September 4, 2018. As stated earlier, the environment will likely benefit from shortening of the non-oxidant season from 5 months (November 1 through March 31) to 3 months (December 1 through the last day of February) allowed for applying cutback liquified asphalt-related activities. This revision is consistent 40 CFR part 58, Appendix D, Table D-3 titled "Ozone Monitoring Season by State". Examination of the record indicates that the submitted revision to Subchapter 39, Section 40 is proper, the revisions will strengthen the SIP and enhance compliance.

We recommend proposed approval of the May 7, 2020, revision to 252:100-39-40.

OAC 252:100-39-41. Storage, loading and transport/delivery of VOCs	
EPA approved December 29, 2008 (73 FR 79400), effective February 27, 2009	252:100-39-41(c)(5) Loading of VOCs. The vapor collection and/or disposal portion of the system shall consist of one or more of the elements listed in 252:100-39-41(c)(5)(A) through 252:100-39-42(c)(5)(C) in addition to bottom loading or submerged fill of transport vessels. Storage vessels at service stations and bulk plants may be used for intermediate storage prior to recovery/disposal of vapors as specified in 252:100-39-41(c)(5)(A) through 252:100-39-41(c)(5)(C) if they are designed to prevent the release of vapors during use. 252:100-39-41(d)(3) Transport/Delivery. Testing of the tank trucks for compliance with the vapor tightness requirements must be consistent with Appendix "B" EPA Guideline Series Document, "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems," EPA 450/2-78-051, or an equivalent method as determined by the Division Director. **252:100-39-41(e) Additional requirements for Tulsa only:** (2)(E) Certification. The owner or operator of a facility shall obtain, by whatever means practicable, certification from the owner or operator of the transport/delivery vessels that all deliveries of gasoline or other VOCs made to their 400-gallon to 40,000-gallon storage facility located in Tulsa County shall be made by transport/delivery vessels that comply with the requirements contained in 252:100-39-41(e)(4). Compliance with 252:100-39-41(e)(2)

	shall be accomplished by owners or operators of affected facilities no later than December 31, 1990. (Effective February 12, 1990) (3) Loading of VOCs. In addition to those requirements contained in 252:100-39-41(c), stationary loading facilities shall be checked annually in accordance with EPA Test Method 21, Leak Test. Leaks greater than 5,000 ppmv shall be repaired within 15 days. Facilities shall retain inspection and repair records for at least two years. (4)(A) Maintenance. (iv) The certified testing facility must certify to the approving agency that the proper testing and repairs have occurred in accordance with 252:100-39-41(e)(4)(B)(i). The vessel must also display on the rear panel a tag showing the date of the pressure test. (v) No owner or operator shall allow a delivery vessel to be filled at a facility unable to receive displaced VOCs nor service vessels unable to deliver displaced vapors except for vessels/facilities exempted in 252:100-39-41(b). Terminal owners shall not fill vessels that do not display a current tag. (vi) Delivery vessels may be inspected by representatives of the DEQ in order to determine their state of repair. Such a test may consist of a visual inspection or a vapor test with vapors not to exceed 5,000 ppmv. Failure of a vapor test shall require the owner or operator to make the necessary repairs within 10 days. Failure to certify within 10 days of a vapor test that the necessary repairs have been made shall subject the owner or operator to sanctions. Upon certification of repairs, the vessel will be allowed to resume normal operation. (B) Testing requirements. (i) Pressure test. (I) Delivery vessels, delivering or receiving gasoline must be tested one time per year for vapor tightness. The vapor tightness test must be consistent with Appendix "A" EPA Guideline Series Document, "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems", EPA 450/2-78-051. Tests shall be performed by the owner or a transport service company. Test methods used to test these vessels by owners or testing companies must be approved for use by the Division Director. (II) The vessel shall be considered to pass the test prescribed in 252:100-39-41(e)(4)(B)(i)(I) when the test results show that the vessel and its vapor collection systems do not sustain a pressure change of more than 3 in. H20. There shall be no avoidable visible liquid leaks. (ii) Vapor test. Testing of the tank trucks for compliance with vapor tightness requirements as required under 252:100-39-41(e)(4)(A)(vi) must be consistent with Appendix "B" EPA Guideline Series Document, "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems", EPA 405/2-78-051, as modified for this purpose and contained in 252:100-43-15. The requirements of 252:100-39-41(e) took effect December 15, 1988
May 2019 Submittal	252:100-39-41(c)(5) Loading of VOCs. The vapor collection and/or disposal portion of the system shall consist of one or more of the elements listed in 252:100-39-41(c)(5)(A) through 252:100-39-41(c)(5)(C) in addition to bottom loading or submerged fill of transport vessels. Storage vessels at service stations and bulk plants may be used for intermediate storage prior to recovery/disposal of vapors as specified in 252:100-39-41(c)(5)(A) through

	252:100-39-41(c)(5)(C) if they are designed to prevent the release of vapors during use. 252:100-39-41(d)(3) Transport/Delivery. Testing of the tank trucks for compliance with the vapor tightness requirements must be consistent with 252:100-39-41(e)(4)(B)(ii), or an equivalent method as determined by the Division Director. **252:100-39-41(e) Additional requirements for Tulsa only:** (2)(E) Certification. The owner or operator of a facility shall obtain, by whatever means practicable, certification from the owner or operator of the transport/delivery vessels that all deliveries of gasoline or other VOCs made to their 400-gallon to 40,000-gallon storage facility located in Tulsa County shall be made by transport/delivery vessels that comply with the requirements contained in 252:100-39-41(e)(4). Compliance with 252:100-39-41(e)(2) shall be accomplished by owners or operators of affected facilities no later than December 31, 1990. (3) Loading of VOCs. In addition to those requirements contained in 252:100-39-41(c), stationary loading facilities shall be checked annually in accordance with EPA Test Method 21or an alternative work practice for monitoring equipment for leaks consistent with 40 CFR Section 60.18(g) through 60.18(i). Leaks greater than 5,000 ppmv measured by EPA Test Method 21 or leaks detected by an alternative work practice for monitoring equipment leaks, shall be repaired within 15 days. Facilities shall retain inspection and repair records for at least two years. (4)(A) Maintenance. (iv) The certified testing facility must certify to the approving agency that the proper testing and repairs have occurred in accordance with 252:100-39-41(e)(4)(B)(ii). (v) No owner or operator shall allow a delivery vessel to be filled at a facility unable to receive displaced VOCs nor service vessels unable to deliver displaced vapors except for vessels/facilities exempted in 252:100-39-41(b). Terminal owners shall not fill vessels that do not have a current certified pressure test on file. (B) Inspection and testing requirements. (i) Inspection. Delivery vessels may be inspected by representative of the DEQ in order to determine their state of repair. Such inspection may consist of a visual inspection or a vapor test specified in 252:100-39-41(e)(4)(B)(iii). Any vapor test that detects vapors exceeding 5,000 ppmv, or visual inspections, with or without imaging instrumentation, that detects emissions, shall require the owner or operator to make the necessary repairs within 5 days. Failure to certify within 10 days of vapor test or visual inspection that the necessary repairs have been made may subject the owner or operator to enforcement. Upon certification of repairs, the vessel will be allowed to resume normal operation. (ii)Pressure test. (I) Delivery vessels, delivering or receiving gasoline must be tested one time per year for vapor tightness. The vapor tightness test must be consistent with EPA Test 27. Tests shall be performed by the owner or a transport service company. Test methods used to test these vessels by owners or testing companies must be approved for use by the Division Director. (II) The vessel shall be considered to pass the test prescribed in 252:100-39-41(e)(4)(B)(ii)(I) when the test results show that the vessel and its vapor

	collection systems do not sustain a pressure change of more than75 mm. H_20 within 5 minutes after it is pressurized to 450 mm H_2O. There shall be no avoidable visible liquid leaks. (iii) Vapor test. Testing of the tank trucks for compliance with vapor tightness requirements as required under 252:100-39-41(e)(4)(B)(i) must be consistent with Test Method 21.
Redline	252:100-39-41(c)(5) Loading of VOCs. The vapor collection and/or disposal portion of the system shall consist of one or more of the elements listed in 252:100-39-41(c)(5)(A) through ~~252:100-39-42(c)(5)(C)~~ 252:100-39-41(c)(5)(C) in addition to bottom loading or submerged fill of transport vessels. Storage vessels at service stations and bulk plants may be used for intermediate storage prior to recovery/disposal of vapors as specified in 252:100-39-41(c)(5)(A) through 252:100-39-41(c)(5)(C) if they are designed to prevent the release of vapors during use. 252:100-39-41(d)(3) Transport/Delivery. Testing of the tank trucks for compliance with the vapor tightness requirements must be consistent with ~~Appendix "B" EPA Guideline Series Document, "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems," EPA-450/2-78-051~~ 252:100-39-41(e)(4)(B)(ii), or an equivalent method as determined by the Division Director. **252:100-39-41(e) Additional requirements for Tulsa only:** 252:100-39-41(e)(2)(E) Certification. The owner or operator of a facility shall obtain, by whatever means practicable, certification from the owner or operator of the transport/delivery vessels that all deliveries of gasoline or other VOCs made to their 400-gallon to 40,000-gallon storage facility located in Tulsa County shall be made by transport/delivery vessels that comply with the requirements contained in 252:100-39-41(e)(4). Compliance with 252:100-39-41(e)(2) shall be accomplished by owners or operators of affected facilities no later than December 31, 1990. ~~(Effective February 12, 1990)~~ (3) Loading of VOCs. In addition to those requirements contained in 252:100-39-41(c), stationary loading facilities shall be checked annually in accordance with EPA Test Method 21~~, Leak Test~~ or an alternative work practice for monitoring equipment for leaks consistent with 40 CFR Section 60.18(g) through 60.18(i). Leaks greater than 5,000 ppmv measured by EPA Test Method 21 or leaks detected by an alternative work practice for monitoring equipment leaks, shall be repaired within 15 days. Facilities shall retain inspection and repair records for at least two years. (4)(A) Maintenance. (iv) The certified testing facility must certify to the approving agency that the proper testing and repairs have occurred in accordance with ~~252:100-39-41(e)(4)(B)(i)~~ 252:100-39-41(e)(4)(B)(ii). ~~The vessel must also display on the rear panel a tag showing the date of the pressure test.~~ (v) No owner or operator shall allow a delivery vessel to be filled at a facility unable to receive displaced VOCs nor service vessels unable to deliver displaced vapors except for vessels/facilities exempted in 252:100-39-41(b). Terminal owners shall not fill vessels that do not ~~display a current tag~~ have a current certified pressure test on file. (~~vi) Delivery vessels may be inspected by representatives of the DEQ in order to determine their state of repair. Such a test may consist of a visual inspection or a vapor test with vapors not to exceed 5,000 ppmv. Failure of a vapor test shall require the owner or operator to make the necessary repairs~~

	~~within 10 days. Failure to certify within 10 days of a vapor test that the necessary repairs have been made shall subject the owner or operator to sanctions. Upon certification of repairs, the vessel will be allowed to resume normal operation.~~ (B) Inspection and t~~T~~esting requirements. (i) ~~Pressure test.~~ Inspection. Delivery vessels may be inspected by representatives of the DEQ in order to determine their state of repair. Such inspection may consist of a visual inspection or a vapor test specified in 252:100-39-41(4)(B)(iii). Any vapor test that detects vapors exceeding 5,000 ppmv, or visual inspection, with or without imaging instrumentation, that detects emissions, shall require the owner or operator to make the necessary repairs within 5 days. Failure to certify within 10 days of a vapor test or visual inspection that the necessary repairs have been made may subject the owner or operator to enforcement. Upon certification of repairs, the vessel will be allowed to resume normal operation. (ii) Pressure test. (I) Delivery vessels, delivering or receiving gasoline must be tested one time per year for vapor tightness. The vapor tightness test must be consistent with ~~Appendix "A" EPA Guideline Series Document, "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems", EPA 450/2-78-051~~ EPA Test Method 27. Tests shall be performed by the owner or a transport service company. Test methods used to test these vessels by owners or testing companies must be approved for use by the Division Director. (II) The vessel shall be considered to pass the test prescribed in ~~252:100-39-41(e)(4)(B)(i)(I)~~ 252:100-39-41(4)(B)(ii)(I) when the test results show that the vessel and its vapor collection systems do not sustain a pressure change of more than ~~3in.~~ 75mm H_20 within 5 minutes after it is pressurized to 450 mm H_2O. There shall be no avoidable visible liquid leaks. (iii) Vapor test. Testing of the tank trucks for compliance with vapor tightness requirements as required under ~~252:100-39-41(e)(4)(A)(vi)~~ 252:100-39-41(e)(4)(B)(i) must be consistent with ~~Appendix "B" EPA Guideline Series Document, "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems", EPA 405/2-78-051, as modified for this purpose and contained in 252:100-43-15~~ EPA Test Method 21. ~~The requirements of 252:100-39-41(e) took effect December 15, 1988.~~
2020 EPA proposed SIP	252:100-39-41(c)(5) Loading of VOCs. The vapor collection and/or disposal portion of the system shall consist of one or more of the elements listed in 252:100-39-41(c)(5)(A) through 252:100-39-41(c)(5)(C) in addition to bottom loading or submerged fill of transport vessels. Storage vessels at service stations and bulk plants may be used for intermediate storage prior to recovery/disposal of vapors as specified in 252:100-39-41(c)(5)(A) through 252:100-39-41(c)(5)(C) if they are designed to prevent the release of vapors during use. 252:100-39-41(d)(3) Transport/Delivery. Testing of the tank trucks for compliance with the vapor tightness requirements must be consistent with 252:100-39-41(e)(4)(B)(ii), or an equivalent method as determined by the Division Director. **252:100-39-41(e) Additional requirements for Tulsa only:**

	(2)(E) Certification. The owner or operator of a facility shall obtain, by whatever means practicable, certification from the owner or operator of the transport/delivery vessels that all deliveries of gasoline or other VOCs made to their 400-gallon to 40,000-gallon storage facility located in Tulsa County shall be made by transport/delivery vessels that comply with the requirements contained in 252:100-39-41(e)(4). Compliance with 252:100-39-41(e)(2) shall be accomplished by owners or operators of affected facilities no later than December 31, 1990. (3) Loading of VOCs. In addition to those requirements contained in 252:100-39-41(c), stationary loading facilities shall be checked annually in accordance with EPA Test Method 21or an alternative work practice for monitoring equipment for leaks consistent with 40 CFR Section 60.18(g) through 60.18(i). Leaks greater than 5,000 ppmv measured by EPA Test Method 21 or leaks detected by an alternative work practice for monitoring equipment leaks, shall be repaired within 15 days. Facilities shall retain inspection and repair records for at least two years. (4)(A) Maintenance. (iv) The certified testing facility must certify to the approving agency that the proper testing and repairs have occurred in accordance with 252:100-39-41(e)(4)(B)(ii). (v) No owner or operator shall allow a delivery vessel to be filled at a facility unable to receive displaced VOCs nor service vessels unable to deliver displaced vapors except for vessels/facilities exempted in 252:100-39-41(b). Terminal owners shall not fill vessels that do not have a current certified pressure test on file. (B) Inspection and testing requirements. (i) Inspection. Delivery vessels may be inspected by representative of the DEQ in order to determine their state of repair. Such inspection may consist of a visual inspection or a vapor test specified in 252:100-39-41(e)(4)(B)(iii). Any vapor test that detects vapors exceeding 5,000 ppmv, or visual inspections, with or without imaging instrumentation, that detects emissions, shall require the owner or operator to make the necessary repairs within 5 days. Failure to certify within 10 days of vapor test or visual inspection that the necessary repairs have been made may subject the owner or operator to enforcement. Upon certification of repairs, the vessel will be allowed to resume normal operation. (ii)Pressure test. (I) Delivery vessels, delivering or receiving gasoline must be tested one time per year for vapor tightness. The vapor tightness test must be consistent with EPA Test 27. Tests shall be performed by the owner or a transport service company. Test methods used to test these vessels by owners or testing companies must be approved for use by the Division Director. (II) The vessel shall be considered to pass the test prescribed in 252:100-39-41(e)(4)(B)(ii)(I) when the test results show that the vessel and its vapor collection systems do not sustain a pressure change of more than75 mm. H_20 within 5 minutes after it is pressurized to 450 mm H_2O. There shall be no avoidable visible liquid leaks. (iii) Vapor test. Testing of the tank trucks for compliance with vapor tightness requirements as required under 252:100-39-41(e)(4)(B)(i) must be consistent with Test Method 21.

Evaluation: The ODEQ is proposing to amend 252: 100-39-41. A typographical error was corrected in 41(c)(5). In 41(d)(3), reference was made to an EPA Control Technique Guideline (CTG) from 1978. This reference was changed to reference the current EPA Test Method 27 as the applicable procedure for the testing requirement. Several modifications were made to 41(e). 41(e) applies to Tulsa County only. 41(e)(2)(B) and (E) were modified by removing a thirty-year-old effective date that is no longer necessary. An alternative work practice for monitoring equipment for leaks consistent with 40 CFR 60.18(g) through 60.18(i) was added. The revision also states that leaks detected by EPA Test Method 21 or by an alternative work practice shall be repaired within 15 days. 41(e)(4)(A)(iv) updates the reference to the portion of the rule that specifies the proper pressure testing which changed as a result of reorganizing the section. As part of reorganizing the section 41(e)(4)(A)(vi) was moved to 41(e)(4)(B)(i), and other references in the 41(e)(4) were changed to align the references with the reorganization. 41(e)(4)(B)(ii) was updated to state that the vapor tightness test must be consistent with EPA Test Method 27 and updated what is considered a passing test as defined by EPA Test Method 27. The revisions are ministerial in nature, update references consistent with federal regulations (40 CFR 60.18(g) through 60.18(i)) or adopt use of EPA Test Methods (Test Methods 21 and 27). Examination of the record indicates that the submitted revision to Subchapter 39, Section 41 is proper, and they will facilitate compliance determination for enforcement purposes.

We recommend proposed approval of the May 7, 2020, revision to 252:100-39-41.

Appendix A: Cover letter for the 2019 Revisions to the Oklahoma SIP

Kenneth E. Wagner
Secretary of Energy & Environment

J. Kevin Stitt
Governor

STATE OF OKLAHOMA
OFFICE OF THE
SECRETARY OF ENERGY & ENVIRONMENT

May 7, 2020

Mr. Ken McQueen, Regional Administrator (ORA)
U.S. Environmental Protection Agency, Region 6
1201 Elm St., Suite 500
Dallas, TX 75270

Subject: 2019 Revisions to the Oklahoma Air Quality State Implementation Plan

Dear Administrator McQueen:

In his letter dated November 20, 2019, Governor Kevin Stitt appointed me as his designee for the purpose of submitting documents to the U.S. Environmental Protection Agency (EPA) for approval and incorporation into the State Implementation Plan (SIP) for Oklahoma.

Therefore, the State of Oklahoma submits for your review and approval under Section 110 of the federal Clean Air Act and 40 CFR Part 51, revisions to the Oklahoma Air Quality SIP and the associated evidence as required by 40 CFR 51, Appendix V, 2.1.

The modifications to Oklahoma's Plan were accomplished by the adoption of permanent rules by the Oklahoma Department of Environmental Quality (DEQ). This submittal covers the annual SIP update for 2019. The amendments include Subchapters 2, 39, and Appendix Q in the Oklahoma Administrative Code (OAC) 252:100, which became effective on September 15, 2019. The amendments to the Subchapters and Appendix incorporate the latest changes to EPA regulations.

For your convenience, the enclosures are organized by individual subchapter and include the final rule for EPA approval followed by each applicable public participation documentation beginning with the notice and ending with the final adoption published in the *Oklahoma Register*. Oklahoma is requesting approval only for the SIP-relevant portions of Subchapters 2, 39, and Appendix Q. Therefore, the final rules are redacted where necessary to denote which portions are not for EPA review. Oklahoma's legal authority is included as the final enclosure.

These rules were promulgated in compliance with the Oklahoma Administrative Procedures Act and published in the *Oklahoma Register*, the official state publication for rulemaking actions. In accordance with 40 CFR 51.103(a) and the transmittal instructions from the Region 6 office, this SIP package is being submitted via the State Plan Electronic Collection System.

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At this time, the State of Oklahoma also withdraws from EPA review a provision – paragraph (c)(4) of OAC 252:4-7-33 – that was included in our May 16, 2018 PSD-related SIP submittal. DEQ has determined this particular provision should not have been submitted for review and approval, as discussed in a September 30, 2019 letter from Eddie Terrill, Director of DEQ's Air Quality Division to Jeff Robinson, Air Permits Section Chief in Region 6 Monitoring & Grants Branch (ARP), copy enclosed.

If you have any questions, please contact Eddie Terrill, Director, Air Quality Division, DEQ at (405) 702-4100.

Sincerely,

Kenneth E. Wagner
Secretary of Energy and Environment

Enclosures

cc: Scott Thompson, Executive Director, DEQ
Eddie Terrill, Director, Air Quality Division, DEQ
Mary Stanton, Infrastructure & Ozone Section, EPA
Michael Feldman, Regional Haze and SO_2 Section, EPA
Guy Donaldson, Chief, State Planning & Implementation Branch, EPA
Jeff Robinson, Chief, Air Permits, Monitoring & Grants Branch, EPA

Appendix B: EPA Approved version of Subchapter 39, Sections 4, 16, 40, and 41

Source: https://www.epa.gov/sips-ok/current-epa-approved-regulations-oklahoma-sip#X39p1

Oklahoma SIP: OAC 252:100-39-1 to 252:100-39-4: Emission of Organic Materials in Nonattainment Areas General Provisions

Regulatory Text:

Oklahoma Administrative Code. Title 252. Department of Environmental Quality

Chapter 100. Air Pollution Control (OAC 252:100)

SUBCHAPTER 39. EMISSION OF ORGANIC MATERIALS IN NONATTAINMENT AREAS

PART 1. GENERAL PROVISIONS

As adopted in the Oklahoma Register June 1, 1999 (16 Ok Reg 1774) effective June 11, 1999.

Approved by EPA December 29, 2008 (73 FR 79400) effective February 27, 2009 (OKd06).

Sections:

252:100-39-1. Purpose, OKd06

252:100-39-2. Definitions, OKd06

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252:100-39-1. Purpose

The purpose of this Subchapter is to reduce the formation of ozone by controlling the emissions of volatile organic compounds (VOCs). This Subchapter contains requirements for the control of emissions of VOCs from stationary sources located in areas that are nonattainment or were formerly nonattainment for ozone.

252:100-39-2. Definitions

The following words and terms, when used in this Subchapter, shall have the following meaning, unless the context clearly indicates otherwise.

"Petroleum refinery" means any facility engaged in producing gasoline, aromatics, kerosene, distillate fuel oils, residual fuel oils, lubricants, asphalt, or other products through distillation of crude oil or other hydrocarbons or through redistillation, cracking, rearrangement or reforming or unfinished petroleum derivatives.

"Refinery unit" means a set of components which are a part of a basic process operation, such as distillation, hydrotreating, cracking or reforming of hydrocarbons.

"Submerged fill pipe" means any fill pipe or discharge nozzle that meets any one of the following conditions.

(A) The bottom of the discharge pipe or nozzle is below the surface of the liquid in the receiving vessel for at least 95 percent of the volume filled.

(B) The bottom of the discharge pipe or nozzle is less than 6 inches from the bottom of the receiving vessel.

(C) The bottom of the discharge pipe or nozzle is less than 2 pipe or nozzle diameters from the bottom of the receiving vessel.

"Volatile organic compound (VOC)" means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. Any organic compound listed in 40 CFR 51.100(s)(1) will be presumed to have negligible photochemical reactivity and will not be considered to be a VOC.

252:100-39-3. General applicability

In addition to any application of the requirements contained in 252:100-37, the additional requirements contained in this Subchapter shall be required of existing and new facilities located in Tulsa and Oklahoma Counties.

252:100-39-4. Exemptions

VOCs with vapor pressures less than 1.5 pounds per square inch absolute (psia) under actual storage conditions are exempt from 252:100-39-16 through 252:100-39-18, 252:100-39-30, 252:100-39-41, and 252:100-48.1

252:100-39-16. Petroleum refinery process unit turnaround

(a) Definition. "Turnaround" means the planned procedure of shutting down a unit, inspecting and repairing it, and restarting it.

(b) Procedures required. For the shutdown, purging and blowdown operation of any petroleum refinery processing unit the following procedures are required:

(1) Recovery of VOCs shall be accomplished during the shutdown or turnaround to a process unit pressure compatible with the flare or vapor system pressure. The unit shall then be purged or flushed to a flare or vapor recovery system using a suitable material such as steam, water or nitrogen. The unit shall not be vented to the atmosphere until pressure is reduced to less than 5 psig through control devices.

(2) Except where inconsistent with the "Minimum Federal Safety Standards for the Transportation of Natural and Other Gas by Pipeline," or any State of Oklahoma regulatory agency, no person shall emit

VOC gases to the atmosphere from a vapor recovery blowdown system unless these gases are burned by smokeless flares or an equally effective control device as approved by the Division Director.

(3) At least fifteen days prior to a scheduled turnaround, a written notification shall be submitted to the Division Director. As a minimum, the notification shall indicate the unit to be shutdown, the date of shutdown, and the approximate quantity of VOCs to be emitted to the atmosphere.

(4) Scheduled refinery unit turnaround may be accomplished without the controls specified in 252:100-39-16(b)(1) and 252:100-39-16(b)(2) during non-oxidant seasons provided the notification to the Division Director as required in 252:100-39-16(b)(3) specifically contains a request for such an exemption. The non-oxidant season is from November 1 through March 31.

252:100-39-40. Cutback asphalt (paving)

(a) Definitions. "Cutback asphalt" means a basic asphalt or asphaltic concrete containing a petroleum distillate.

(b) Requirements. No owner, operator and/or contractor shall prepare or apply cutback liquefied asphalt without the prior written consent of the Division Director. Such consent may be granted during Oklahoma's non-oxidant season, i.e., November 1 through March 31.

252:100-39-41. Storage, loading and transport/delivery of VOCs

(a) Storage of VOCs in vessels with storage capacities greater than 40,000 gallons. Each vessel with a capacity greater than 40,000 gal (151 m3) which stores gasoline or any VOC shall be a pressure vessel capable of maintaining working pressures that prevent the loss of VOC vapor or gas to the atmosphere or shall be equipped with one or more of the following vapor control devices.

(1) An external floating roof, that consists of a pontoon-type or double-deck type cover or a fixed roof with an internal-floating cover. The cover shall rest on the surface of the liquid contents at all times (i.e. off the leg supports), except during initial fill, when the storage vessel is completely empty, or during refilling. When the cover is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. The floating roof shall be equipped with a closure seal, or seals, to close the space between the cover edge and vessel wall. Floating roofs are not appropriate control devices if the VOCs have a vapor pressure of 11.1 psia (76.6 kPa) or greater under actual conditions. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. Closure seals for fixed roof vessels with an internal-floating cover shall meet the requirements of 252:100-39-30(c)(1)(B)(i) and (ii). Closure seals for vessels with external floating roofs shall meet the requirements of 252:100-39-30(c)(1)(B)(i), (ii), and (iii).

(2) A vapor-recovery system that consists of a vapor-gathering system capable of collecting 90 percent by weight or more of the uncontrolled VOCs that would otherwise be emitted to the atmosphere and a vapor-disposal system capable of processing VOCs to prevent emissions in excess of 6.68 x 10-4 lb/gal (80 mg/l) of VOCs transferred. All vessel gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(3) Other equipment or methods that are of equal efficiency for purposes of air pollution control may be used when approved by the Division Director and in concert with federal guidelines.

(b) Storage of VOCs in vessels with storage capacities of 400-40,000 gallons.

(1) Each gasoline or other VOC storage vessel with a nominal capacity greater than 400 gal (1.5 m3) and less than 40,000 gal (151 m3) shall be equipped with a submerged fill pipe or be bottom filled.

(2) The displaced vapors from each storage vessel with an average daily throughput of 30,000 gal (113,562 l) or greater which stores gasoline or other VOCs shall be processed by a system that has a total collection efficiency no less than 90 percent by weight of total VOCs in the vapors.

(A) The vapor recovery system shall include:

(i) a vapor-tight return line from the storage vessel to the delivery vessel and a system that will ensure that the vapor return line is connected before gasoline or VOCs can be transferred into the storage vessel; or,

(ii) other equipment that has a total collection efficiency no less than 90 percent by weight of the total VOCs in the displaced vapor if approval is obtained from the Division Director prior to start of construction.

(B) The requirements for vapor collection of displaced vapors shall not apply to operations that are not major sources.

(c) Loading of VOCs.

(1) Each VOC loading facility with an annual throughput of 120,000 gal (454,249 l) or greater or storage capacity greater than 10,000 gal (38 m3) shall be equipped with a vapor-collection and/or disposal system.

(2) While VOCs are loaded through the hatches of a transport vessel, a pneumatic, hydraulic or mechanical means shall be provided to ensure a vapor-tight seal at the hatch.

(3) A means shall be provided to prevent VOC drainage from the loading device when it is removed from the transport vessel, or to accomplish complete drainage before removal.

(4) When loading is by means other than hatches, all loading and vapor lines shall be equipped with fittings that make vapor-tight connections and which close automatically when disconnected.

(5) The vapor collection and/or disposal portion of the system shall consist of one or more of the elements listed in 252:100-39-41(c)(5)(A) through 252:100-39-42(c)(5)(C) in addition to bottom loading or submerged fill of transport vessels. Storage vessels at service stations and bulk plants may be used for

intermediate storage prior to recovery/disposal of vapors as specified in 252:100-39-41(c)(5)(A) through 252:100-39-41(c)(5)(C) if they are designed to prevent the release of vapors during use.

(A) An absorption/adsorption system or condensation system that has a minimum recovery efficiency of 90 percent by weight of all the VOC vapors and gases entering such disposal system.

(B) A vapor handling system which directs all vapors to a fuel gas incineration system with a minimum disposal efficiency of 95 percent.

(C) Other equipment that has at least a 90 percent efficiency, provided plans for such equipment are approved by the Division Director.

(6) Subsection 252:100-39-41(c) shall apply to any facility that loads VOCs into any transport vessel designed for transporting VOCs.

(d) Transport/delivery.

(1) The vapor-laden delivery vessel shall meet one of the following requirements.

(A) The delivery vessel must be designated and operated to be vapor tight except when sampling, gauging, or inspecting.

(B) The delivery vessel must be equipped and operated to deliver the VOC vapors to a vapor recovery/disposal system.

(2) No owner or operator shall allow a delivery vessel to be filled at a facility unable to receive displaced VOC vapors nor service vessels unable to deliver displaced vapors except for vessels and facilities exempted in 252:100-39-41(b) and 252:100-39-41(c).

(3) Testing of the tank trucks for compliance with the vapor tightness requirements must be consistent with Appendix "B" EPA Guideline Series Document, "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems," EPA 450/2-78-051, or an equivalent method as determined by the Division Director.

(e) Additional requirements for Tulsa County.

(1) Applicability. This subsection applies only in Tulsa County.

(2) Storage of VOCs.

(A) 2,000 - 40,000 gallons capacity. Each storage vessel with a nominal capacity greater than 2,000 gal (7.6 m3) and less than 40,000 gal (151 m3) that stores gasoline or other VOCs or each storage vessel located at a facility that dispenses more than 120,000 gal/yr of gasoline or other VOCs, in addition to being equipped with a submerged fill pipe or being bottom loading, shall be equipped with a vapor control system. The vapor control system shall have an efficiency of no less than 90 percent by weight of the VOCs contained in the displaced vapors and shall be equipped with a pressure relief valve in the atmospheric vent system which maintains a pressure of 16 oz/in.2 and l/2 oz/in.2 vacuum. The vapor recovery system shall include one or more of the following.

(i) A vapor-tight return line from the storage vessel to the delivery vessel and a system that will ensure that the vapor return line is connected before gasoline or VOCs can be transferred into the storage vessel (i.e., poppeted connectors from the storage vessel to the delivery vessel.).

(ii) A float vent valve assembly installed in the vapor return/vent line on new and existing dual point installations; however, for coaxial installations on existing stations, a vent sleeve extending 6 in. (15 cm) below the top of the vessel will be allowed. Sleeves may be equipped with a 1/16 in. (0.16 cm) air bleed hole.

(iii) A vapor recovery line with a cross-sectional area that is at least half of the cross-sectional area of the liquid delivery line.

(iv) Other equipment that has a total collection efficiency no less than 90 percent by weight of the total VOCs in the displaced vapor if approved by Division Director prior to start of construction.

(B) Applicability.

(i) Any vessel with a capacity greater than 2,000 gal (7.6 m3) or any vessel located at a facility that dispenses more than 120,000 gal/yr (454,249 l/yr) shall be and will always remain subject to 252:100-39-41(e)(2). (effective February 12, 1990)

(ii) Exemptions to 252:100-39-41(e)(2) may be granted if the owner or operator shows to the satisfaction of the Division Director that the vessel is used exclusively for agricultural purposes.

(C) Emission testing. If emission testing is conducted, the appropriate test methods selected from EPA Methods 1 through 4, 18, 21, 25, 25A and 25B shall be utilized.

(D) Compliance. Compliance with 252:100-39-41(e)(2) shall be accomplished by the owner or operator of affected facilities by December 31, 1986.

(E) Certification. The owner or operator of a facility shall obtain, by whatever means practicable, certification from the owner or operator of the transport/delivery vessels that all deliveries of gasoline or other VOCs made to their 400-gallon to 40,000-gallon storage facility located in Tulsa County shall be made by transport/delivery vessels that comply with the requirements contained in 252:100-39-41(e)(4). Compliance with 252:100-39-41(e)(2) shall be accomplished by owners or operators of affected facilities no later than December 31, 1990. (Effective February 12, 1990)

(3) Loading of VOCs. In addition to those requirements contained in 252:100-39-41(c), stationary loading facilities shall be checked annually in accordance with EPA Test Method 21, Leak Test. Leaks greater than 5,000 ppmv shall be repaired within 15 days. Facilities shall retain inspection and repair records for at least two years.

(4) Transport/delivery vessel requirements. In addition to the requirements contained in 252:100-39-41(d), facilities located in Tulsa County must meet the following requirements.

(A) Maintenance.

(i) The delivery vessel must be maintained so that it is vapor tight except when sampling, gauging, or inspecting. These activities shall not occur while the vehicle is loading or unloading or is in a pressurized state.

(ii) The delivery vessel must be equipped, maintained, and operated to receive vapors from sources identified in 252:100-39-41(b)(1) and 252:100-39-41(b)(2) and retain these and all other vapors until they are delivered into an authorized vapor recovery/disposal system.

(iii) Vessels with defective equipment such as boots, seals, and hoses, or with other deficiencies that would impair the vessels' ability to retain vapors or liquid shall be repaired within 5 days.

(iv) The certified testing facility must certify to the approving agency that the proper testing and repairs have occurred in accordance with 252:100-39-41(e)(4)(B)(i). The vessel must also display on the rear panel a tag showing the date of the pressure test.

(v) No owner or operator shall allow a delivery vessel to be filled at a facility unable to receive displaced VOCs nor service vessels unable to deliver displaced vapors except for vessels/facilities exempted in 252:100-39-41(b). Terminal owners shall not fill vessels that do not display a current tag.

(vi) Delivery vessels may be inspected by representatives of the DEQ in order to determine their state of repair. Such a test may consist of a visual inspection or a vapor test with vapors not to exceed 5,000 ppmv. Failure of a vapor test shall require the owner or operator to make the necessary repairs within 10 days. Failure to certify within 10 days of a vapor test that the necessary repairs have been made shall subject the owner or operator to sanctions. Upon certification of repairs, the vessel will be allowed to resume normal operation.

(B) Testing requirements.

(i) Pressure test.

(I) Delivery vessels, delivering or receiving gasoline must be tested one time per year for vapor tightness. The vapor tightness test must be consistent with Appendix "A" EPA Guideline Series Document, "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems", EPA 450/2-78-051. Tests shall be performed by the owner or a transport service company. Test methods used to test these vessels by owners or testing companies must be approved for use by the Division Director.

(II) The vessel shall be considered to pass the test prescribed in 252:100-39-41(e)(4)(B)(i)(I) when the test results show that the vessel and its vapor collection systems do not sustain a pressure change of more than 3 in. H20. There shall be no avoidable visible liquid leaks.

(ii) Vapor test. Testing of the tank trucks for compliance with vapor tightness requirements as required under 252:100-39-41(e)(4)(A)(vi) must be consistent with Appendix "B" EPA Guideline Series Document, "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems", EPA 405/2-78-051, as modified for this purpose and contained in 252:100-43-15. The requirements of 252:100-39-41(e) took effect December 15, 1988

TSD Appendix C – Oklahoma-adopted version of Subchapter 39, Sections 1 through 42

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PART 1. GENERAL PROVISIONS

252:100-39-1. Purpose

The purpose of this Subchapter is to reduce the formation of ozone by controlling the emissions of volatile organic compounds (VOCs). This Subchapter contains requirements for the control of emissions of VOCs from stationary sources located in areas that are nonattainment or were formerly nonattainment for ozone.

252:100-39-2. Definitions

The following words and terms, when used in this Subchapter, shall have the following meaning, unless the context clearly indicates otherwise.

"Petroleum refinery" means any facility engaged in producing gasoline, aromatics, kerosene, distillate fuel oils, residual fuel oils, lubricants, asphalt, or other products through distillation of crude oil or other hydrocarbons or through redistillation, cracking, rearrangement or reforming or unfinished petroleum derivatives.

"Refinery unit" means a set of components which are a part of a basic process operation, such as distillation, hydrotreating, cracking or reforming of hydrocarbons.

"Submerged fill pipe" means any fill pipe or discharge nozzle that meets any one of the following conditions.

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(A) The bottom of the discharge pipe or nozzle is below the surface of the liquid in the receiving vessel for at least 95 percent of the volume filled.

(B) The bottom of the discharge pipe or nozzle is less than 6 inches from the bottom of the receiving vessel.

(C) The bottom of the discharge pipe or nozzle is less than 2 pipe or nozzle diameters from the bottom of the receiving vessel.

252:100-39-3. General applicability

In addition to any application of the requirements contained in 252:100-37, the additional requirements contained in this Subchapter shall be required of existing and new facilities located

in Tulsa and Oklahoma Counties.

252:100-39-4. Exemptions

VOCs with vapor pressures less than 1.5 pounds per square inch absolute (psia) under actual storage conditions are exempt from 252:100-39-16 through 252:100-39-18, 252:100-39-30, and 252:100-39-41.

PART 3. PETROLEUM REFINERY OPERATIONS

252:100-39-15. Petroleum refinery equipment leaks

(a) Definitions. The following words and terms, when used in this Section, shall have the following meaning, unless the context clearly indicates otherwise.

(1) "Component" means any piece of equipment which has the potential to leak VOCs when tested in the manner described in EPA Test Method 21 of 40 CFR Part 60. These sources include, but are not limited to, pumping seals, compressor seals, seal oil degassing vents, pipeline valves, flanges and other connections, pressure relief devices, process drains, and open ended pipes. Excluded from these sources are valves which are not externally regulated.

(2) "Gas service" means any equipment which processes, transfers or contains a VOC or mixture of VOCs in the gaseous phase.

(3) "Leaking component" means a component which has a VOC concentration exceeding 10,000 ppmv when tested according to the provisions in 252:100-39-15(e).

(4) "Liquid service" means any equipment which processes, transfers or contains a VOC or mixture of VOCs in the liquid phase.

(5) "Valves not externally regulated" means valves that have no external controls, such as in-line check valves.

(b) Applicability.

(1) This Section applies to all petroleum refineries located in Tulsa County and Oklahoma County.

(2) VOCs with vapor pressures less than 0.0435 psia (0.3 kilopascals (kPa)) under actual storage conditions are exempt from 252:100-39-15. (Effective 2-12-90.)

(c) Standards and operating requirements

(1) The owner or operator of a petroleum refinery subject to this Section shall:

(A) develop and conduct a monitoring program consistent with the provisions in 252:100-39-15(d) and 252:100-39-15(f);

(B) record all leaking components and place an identifying tag on each component consistent with the provisions in 252:100-39-15(f)(3);

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(C) repair and retest the leaking components as soon as possible but no later than 15 days after the leak is found;

(D) identify all leaking components which cannot be repaired until the unit is shutdown for turnaround; and,

(E) assure all lines or pipes terminating with a valve are sealed with a second valve, a blind flange, a plug or a cap.

(2) The Division Director may require the owner or operator to take appropriate remedial action, including early unit turnaround, based on the number and severity of tagged leaks awaiting repair.

(3) Pipeline valves and pressure relief valves in gas service shall be marked in some manner that will be readily obvious to both petroleum refinery or contract personnel performing monitoring and the DEQ.

(d) Compliance schedule. The owner or operator of a petroleum refinery shall submit to the Division Director a monitoring program by July 30, 1981. This program shall contain, at a minimum, a list of the refinery units and the quarter in which they will be monitored, a copy of the log book format, and the make and model of the monitoring equipment to be used. In no case shall a monitoring contract relieve the owner or operator of a petroleum refinery of the responsibility for compliance with this Section.

(e) Testing and monitoring procedures. Testing and calibration procedures to determine compliance with this Section must be consistent with EPA Test Method 21 of 40 CFR Part 60.

(f) Monitoring.

(1) The owner or operator of a petroleum refinery shall conduct a monitoring program consistent with the following provisions. The owner or operator shall:

(A) monitor yearly by the methods referenced in 252:100-39-15(e) all pump seals, pipeline valves in liquid service, and process drains;

(B) monitor quarterly by the methods referenced in 252:100-39-15-(e) all compressor seals, pipeline valves in gas service, and pressure relief valves in gas service;

(C) monitor weekly by visual methods all pump seals;

(D) monitor within 24 hours any pump seal from which VOC liquids are observed dripping;

(E) monitor any relief valve within 24 hours after it has vented to the atmosphere; and,

(F) monitor immediately after repair any component that was found leaking.

(2) Pressure relief devices that are connected to an operating flare header, vapor recovery devices, inaccessible valves, storage tank valves, and valves that are not externally regulated are exempt from the monitoring requirements in paragraph (1) of this subsection; provided, however, such inaccessible valves will be monitored during annual shutdown.

(3) The owner or operator of a petroleum refinery, upon the detection of a leaking component that is not repaired on discovery, shall affix a weatherproof and readily visible tag, bearing an identification number and the date the leak is located, to the leaking component. This tag shall remain in place until the leaking component is repaired.

(g) Recordkeeping.

(1) The owner or operator of a petroleum refinery shall maintain a leaking components monitoring log which shall contain, at a minimum:

(A) the name of the process unit where the component is located;

(B) the type of component (e.g., valve, seal);

(C) the tag number of the component, if not repaired immediately on discovery;

(D) the date on which a leaking component is discovered;

(E) the date on which a leaking component is repaired;

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(F) the date and instrument reading of the recheck procedure after a leaking component is repaired;

(G) the date of the calibration of the monitoring instrument which shall be made available for inspection on request;

(H) those leaks that cannot be repaired until turnaround; and,

(I) the total number of components checked and the total number of components found

leaking.

(2) The monitoring log shall be retained on site by the owner or operator for at least two years after the date on which the record was made or the report prepared.

(3) The monitoring log shall be made available for inspection at any reasonable time and copies of the log shall be provided to the Division Director, upon written request of the AQD.

(h) Reporting. The owner or operator of a petroleum refinery shall:

(1) submit a report to the Division Director by the 30th day following the end of each calendar quarter that lists all leaking components that were located during the previous quarter but not repaired within 15 days, all leaking components awaiting unit turnaround, and the total number of components found leaking; and,

(2) submit a signed statement with the report attesting to the fact that all monitoring and, with the exception of those leaking components listed in 252:100-39-15(h)(1), all repairs were performed as stipulated in the monitoring program.

252:100-39-16. Petroleum refinery process unit turnaround

(a) Definition. "Turnaround" means the planned procedure of shutting down a unit, inspecting and repairing it, and restarting it.

(b) Procedures required. For the shutdown, purging and blowdown operation of any petroleum refinery processing unit the following procedures are required:

(1) Recovery of VOCs shall be accomplished during the shutdown or turnaround to a process unit pressure compatible with the flare or vapor system pressure. The unit shall then be purged or flushed to a flare or vapor recovery system using a suitable material such as steam, water or nitrogen. The unit shall not be vented to the atmosphere until pressure is reduced to less than 5 psig through control devices.

(2) Except where inconsistent with the "Minimum Federal Safety Standards for the Transportation of Natural and Other Gas by Pipeline," or any State of Oklahoma regulatory agency, no person shall emit VOC gases to the atmosphere from a vapor recovery blowdown system unless these gases are burned by smokeless flares or an equally effective control device as approved by the Division Director.

(3) At least fifteen days prior to a scheduled turnaround, a written notification shall be submitted to the Division Director. As a minimum, the notification shall indicate the unit to

be shutdown, the date of shutdown, and the approximate quantity of VOCs to be emitted to the atmosphere.

(4) Scheduled refinery unit turnaround may be accomplished without the controls specified in 252:100-39-16(b)(1) and 252:100-39-16(b)(2) during non-oxidant seasons provided the notification to the Division Director as required in 252:100-39-16(b)(3) specifically contains a request for such an exemption. The non-oxidant season is from December 1 through the last day of February.

252:100-39-17. Petroleum refinery vacuum producing system

(a) Definitions. The following words and terms, when used in this Section, shall have the following meaning, unless the context clearly indicates otherwise.

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(1) "Accumulator" means the vessel in the overhead stream of any fractionating tower, after the overhead condenses and separates noncondensable gases, liquid VOCs and water.

(2) "Hotwell" means the tank at the bottom of the barometer leg in a barometric condenser system to receive the water, condensate and entrained VOCs generated by the barometric condenser.

(b) Requirements. Noncondensable VOCs emitted from any of the vacuum producing systems listed in paragraphs (1) through (3) of this subsection shall be incinerated or reduced by 90 percent of what would be emitted without controls.

(1) Steam ejectors with barometric condensers.

(2) Steam ejectors with surface condensers.

(3) Mechanical vacuum pumps.

(c) Hotwells and accumulators.

(1) Hot wells and accumulators shall be covered and the noncondensable vapors shall be vented to a fire-box or incinerator.

(2) The presence of a pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. (Effective February 12, 1990)

(d) Compliance. Compliance shall be determined in accordance with the provision of the CTG document ("Control of Refinery Vacuum Producing systems, Wastewater Separators and Process Unit Turnarounds," EPA 450/2-77-025, October, 1977). Test reports and maintenance records

shall be maintained for at least two years. If emission testing is required, the appropriate test method(s) selected from EPA Reference Methods l through 4, 21, and/or 25, shall be utilized.

252:100-39-18. Petroleum refinery effluent water separators

(a) Definition. "Effluent water separator" means any container in which any VOC floating on, entrained in, or contained in water entering the container is physically separated and removed from the water prior to discharge of the water from the container.

(b) Requirements. No owner or operator shall operate or install a single-compartment or multiple-compartment effluent water separator unless the compartment receiving the effluent water is equipped to control emissions in one of the following ways.

(1) The container totally encloses the liquid contents and all openings are sealed. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. The oil removal devices shall be gas-tight except when manual skimming, inspection and/or repair is in progress.

(2) The container is equipped with a vapor-recovery system, consisting of a vapor-gathering system capable of collecting the VOC vapors and gases discharged and a vapor-disposal system capable of processing such VOC vapors and gases to prevent their emission to the atmosphere. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. The VOC removal devices shall be gas-tight except when manual skimming, inspection and/or repair is in progress.

(3) A container that is equipped with controls of equal efficiency, provided the plans and specifications are approved by the Division Director prior to their use.

PART 5. PETROLEUM PROCESSING AND STORAGE

252:100-39-30. Petroleum liquid storage in vessels with external floating roofs

(a) Definitions. The following words and terms, when used in this Section, shall have the following meaning, unless the context clearly indicates otherwise.

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(1) "Condensate" means hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

(2) "Drilling or production facility" means all drilling and servicing equipment, wells, flow lines, separators, equipment, gathering lines, and auxiliary non-transportation-related

equipment used in the production of petroleum but does not include natural gasoline plants.

(3) "External floating roof" means a storage vessel cover in an open top tank consisting of a double deck or pontoon single deck which rests upon and is supported by the petroleum liquid being contained and is equipped with a closure seal or seals to close the space between the roof edge and tank wall.

(4) "Lease custody transfer" means the transfer of produced crude oil and/or condensate, after processing and/or treating in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other form of transportation.

(5) "Liquid-mounted seal" means primary seal mounted in continuous contact with the liquid between the vessel wall and the floating roof.

(6) "Petroleum liquid" means crude oil, condensate, and any finished or intermediate liquid products manufactured or extracted in a petroleum refinery.

(7) "Vapor-mounted seal" means a primary seal mounted so there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the vessel wall, the liquid surface, and the floating roof.

(8) "Waxy, high pour point crude oil" means a crude oil with a pour point of 59o F or higher as determined by the American Society of Testing and Materials Standard D97-66, "Test for Pour Point of Petroleum Oils."

(b) Applicability.

(1) This Section applies to petroleum liquid storage vessels equipped with external floating roofs, having capacities greater than 40,000 gal (150,000l).

(2) This Section does not apply to petroleum liquid storage vessels that:

(A) are used to store waxy, high pour point crude oil;

(B) have capacities less than 422,675 gal (1,600 m3) and are used to store produced crude oil and condensate prior to lease custody transfer;

(C) contain a petroleum liquid with a true vapor pressure less than 1.5 psia (10.5 kPa);

(D) contain a petroleum liquid with a true vapor pressure less than 4.0 psia (27.6 kPa) if

the vessels are of welded construction and have a metallic-type shoe seal, a liquid mounted foam seal, a liquid-mounted liquid filled type seal, or other closure device of

demonstrated equivalence approved by the Division Director; or,

(E) are of welded construction, are equipped with a metallic-type shoe primary seal and

have a secondary seal from the top of the shoe seal to the vessel wall (shoe-mounted

secondary seal).

(3) Storage vessels that are subject to the equipment standards for external floating roofs in

40 CFR 60 Subparts Ka or Kb are exempt from the requirements of 252:100-39-30.

(4) Storage vessels that are subject to the equipment standards for external floating roofs in

40 CFR 63 Subparts CC (63.646) or G shall be exempt from the requirements of 252:100-39-

30 upon the date compliance with the standards in Subparts CC and G is required.

(c) Equipment and operating requirements.

(1) Standards. Each storage vessel used to store a petroleum liquid shall meet the following

conditions.

(A) The vessel has been fitted with:

(i) a continuous secondary seal extending from the floating roof to the vessel wall

(rim-mounted secondary seal); or,

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(ii) a closure device or other device which controls VOC emissions with an

effectiveness equal to or greater than a seal required in 252:100-39-30(c)(1)(A)(i) and

approved by the Division Director.

(B) All seal closure devices meet the following requirements.

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

(ii) The seal(s) are intact and uniformly in place around the circumference of the

floating roof between the floating roof and the vessel wall.

(iii) The accumulated area of gaps exceeding 1/8 in. (0.32 cm) in width between the

secondary seal and the vessel wall when the secondary seal is used in combination

with a vapor mounted primary seal shall not exceed 1.0 in.2

/ft of vessel diameter

(21.2 cm2

/m of vessel diameter). This shall be determined by physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 1/8 in. (0.32 cm) uniform diameter probe passes freely between the seal and the vessel wall and summing the areas of the individual gaps.

(C) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, are:

(i) equipped with covers, seals, or lids in the closed position except when the openings are in actual use; and,

(ii) equipped with projections into the vessel which remain below the liquid surface at all times.

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

(E) Rim vents are set to open when the roof is being floated off the leg supports or at the manufacturer's recommended settings.

(F) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90 percent of the area of the opening.

(2) Monitoring. The owner or operator of a petroleum liquid storage vessel with an external floating roof subject to this Section shall:

(A) perform routine inspections semi-annually in order to ensure compliance with 252:100-39-30(c)(1)(B)(i), i.e., no visible holes, tears, or other openings in the seals or seal fabric;

(B) measure the secondary seal gap annually in accordance with 252:100-39-30(c)(1)(B)(iii), when the floating roof is equipped with a vapor-mounted primary seal; and,

(C) maintain records of the types of volatile petroleum liquids stored, the true vapor pressure of the liquid as stored, and the results of the inspections performed in 252:100-39-30(c)(2)(A) and 252:100-39-30(c)(2)(B).

(3) Recordkeeping.

(A) Copies of all records under 252:100-39-30(c)(2) shall be retained by the owner or operator for a minimum of two years after the date on which the record was made.

(B) Copies of all records under this Section shall be made available to the Division Director, upon request, at any reasonable time.

(d) Compliance schedule. Compliance with this Section shall be accomplished by affected facilities by May 23, 1982.

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PART 7. SPECIFIC OPERATIONS

252:100-39-40. Cutback asphalt (paving)

(a) Definitions. "Cutback asphalt" means a basic asphalt or asphaltic concrete containing a petroleum distillate.

(b) Requirements. No owner, operator and/or contractor shall prepare or apply cutback liquefied asphalt without the prior written consent of the Division Director. Such consent may be granted during Oklahoma's non-oxidant season, i.e., December 1 through the last day of February.

252:100-39-41. Storage, loading and transport/delivery of VOCs

(a) Storage of VOCs in vessels with storage capacities greater than 40,000 gallons. Each vessel with a capacity greater than 40,000 gal (151 m3

) which stores gasoline or any VOC shall

be a pressure vessel capable of maintaining working pressures that prevent the loss of VOC vapor or gas to the atmosphere or shall be equipped with one or more of the following vapor control devices.

(1) An external floating roof, that consists of a pontoon-type or double-deck type cover or a fixed roof with an internal-floating cover. The cover shall rest on the surface of the liquid contents at all times (i.e., off the leg supports), except during initial fill, when the storage vessel is completely empty, or during refilling. When the cover is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. The floating roof shall be equipped with a closure seal, or seals, to close the space between the cover edge and vessel wall. Floating roofs are not appropriate control devices if the VOCs have a vapor pressure of 11.1 psia (76.6 kPa) or greater under actual conditions. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. Closure seals for fixed roof vessels with an

internal-floating cover shall meet the requirements of 252:100-39-30(c)(1)(B)(i) and (ii). Closure seals for vessels with external floating roofs shall meet the requirements of 252:100-39-30(c)(1)(B)(i), (ii), and (iii).

(2) A vapor-recovery system that consists of a vapor-gathering system capable of collecting 90 percent by weight or more of the uncontrolled VOCs that would otherwise be emitted to the atmosphere and a vapor-disposal system capable of processing VOCs to prevent emissions in excess of 6.68 x 10-4
lb/gal (80 mg/l) of VOCs transferred. All vessel gauging
and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(3) Other equipment or methods that are of equal efficiency for purposes of air pollution control may be used when approved by the Division Director and in concert with federal guidelines.

(b) Storage of VOCs in vessels with storage capacities of 400-40,000 gallons.

(1) Each gasoline or other VOC storage vessel with a nominal capacity greater than 400 gal (1.5 m3
) and less than 40,000 gal (151 m3
) shall be equipped with a submerged fill pipe or be
bottom filled.

(2) The displaced vapors from each storage vessel with an average daily throughput of 30,000 gal (113,562 l) or greater which stores gasoline or other VOCs shall be processed by a system that has a total collection efficiency no less than 90 percent by weight of total VOCs in the vapors.

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(A) The vapor recovery system shall include:

(i) a vapor-tight return line from the storage vessel to the delivery vessel and a system that will ensure that the vapor return line is connected before gasoline or VOCs can be transferred into the storage vessel; or,

(ii) other equipment that has a total collection efficiency no less than 90 percent by weight of the total VOCs in the displaced vapor if approval is obtained from the Division Director prior to start of construction.

(B) The requirements for vapor collection of displaced vapors shall not apply to operations that are not major sources.

(c) Loading of VOCs.

(1) Each VOC loading facility with an annual throughput of 120,000 gal (454,249 l) or greater or storage capacity greater than 10,000 gal (38 m3) shall be equipped with a vaporcollection and/or disposal system.

(2) While VOCs are loaded through the hatches of a transport vessel, a pneumatic, hydraulic or mechanical means shall be provided to ensure a vapor-tight seal at the hatch.

(3) A means shall be provided to prevent VOC drainage from the loading device when it is removed from the transport vessel, or to accomplish complete drainage before removal.

(4) When loading is by means other than hatches, all loading and vapor lines shall be equipped with fittings that make vapor-tight connections and which close automatically when disconnected.

(5) The vapor collection and/or disposal portion of the system shall consist of one or more of the elements listed in 252:100-39-41(c)(5)(A) through 252:100-39-41(c)(5)(C) in addition to bottom loading or submerged fill of transport vessels. Storage vessels at service stations and bulk plants may be used for intermediate storage prior to recovery/disposal of vapors as specified in 252:100-39-41(c)(5)(A) through 252:100-39-41(c)(5)(C) if they are designed to prevent the release of vapors during use.

(A) An absorption/adsorption system or condensation system that has a minimum recovery efficiency of 90 percent by weight of all the VOC vapors and gases entering such disposal system.

(B) A vapor handling system which directs all vapors to a fuel gas incineration system with a minimum disposal efficiency of 95 percent.

(C) Other equipment that has at least a 90 percent efficiency, provided plans for such equipment are approved by the Division Director.

(6) Subsection 252:100-39-41(c) shall apply to any facility that loads VOCs into any transport vessel designed for transporting VOCs.

(d) Transport/delivery.

(1) The vapor-laden delivery vessel shall meet one of the following requirements.

(A) The delivery vessel must be designated and operated to be vapor tight except when sampling, gauging, or inspecting.

(B) The delivery vessel must be equipped and operated to deliver the VOC vapors to a vapor recovery/disposal system.

(2) No owner or operator shall allow a delivery vessel to be filled at a facility unable to receive displaced VOC vapors nor service vessels unable to deliver displaced vapors except for vessels and facilities exempted in 252:100-39-41(b) and 252:100-39-41(c).

(3) Testing of the tank trucks for compliance with the vapor tightness requirements must be consistent with 252:100-39-41(e)(4)(B)(ii), or an equivalent method as determined by the Division Director.

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(e) Additional requirements for Tulsa County.

(1) Applicability. This subsection applies only in Tulsa County.

(2) Storage of VOCs.

(A) 2,000 - 40,000 gallons capacity. Each storage vessel with a nominal capacity greater than 2,000 gal (7.6 m3

) and less than 40,000 gal (151 m3

) that stores gasoline or

other VOCs or each storage vessel located at a facility that dispenses more than 120,000 gal/yr of gasoline or other VOCs, in addition to being equipped with a submerged fill pipe or being bottom loading, shall be equipped with a vapor control system. The vapor control system shall have an efficiency of no less than 90 percent by weight of the VOCs contained in the displaced vapors and shall be equipped with a pressure relief valve in the atmospheric vent system which maintains a pressure of 16 oz/in.2

and l/2 oz/in.2

vacuum.

The vapor recovery system shall include one or more of the following.

(i) A vapor-tight return line from the storage vessel to the delivery vessel and a system that will ensure that the vapor return line is connected before gasoline or VOCs can be transferred into the storage vessel (i.e., poppeted connectors from the

storage vessel to the delivery vessel).

(ii) A float vent valve assembly installed in the vapor return/vent line on new and existing dual point installations; however, for coaxial installations on existing stations, a vent sleeve extending 6 in. (15 cm) below the top of the vessel will be allowed. Sleeves may be equipped with a 1/16 in. (0.16 cm) air bleed hole.

(iii) A vapor recovery line with a cross-sectional area that is at least half of the crosssectional area of the liquid delivery line.

(iv) Other equipment that has a total collection efficiency no less than 90 percent by weight of the total VOCs in the displaced vapor if approved by Division Director prior to start of construction.

(B) Applicability.

(i) Any vessel with a capacity greater than 2,000 gal (7.6 m3) or any vessel located at a facility that dispenses more than 120,000 gal/yr (454,249 l/yr) shall be and will always remain subject to 252:100-39-41(e)(2).

(ii) Exemptions to 252:100-39-41(e)(2) may be granted if the owner or operator shows to the satisfaction of the Division Director that the vessel is used exclusively for agricultural purposes.

(C) Emission testing. If emission testing is conducted, the appropriate test methods selected from EPA Methods 1 through 4, 18, 21, 25, 25A and 25B shall be utilized.

(D) Compliance. Compliance with 252:100-39-41(e)(2) shall be accomplished by the owner or operator of affected facilities by December 31, 1986.

(E) Certification. The owner or operator of a facility shall obtain, by whatever means practicable, certification from the owner or operator of the transport/delivery vessels that all deliveries of gasoline or other VOCs made to their 400-gallon to 40,000-gallon storage facility located in Tulsa County shall be made by transport/delivery vessels that comply with the requirements contained in 252:100-39-41(e)(4). Compliance with 252:100-39-41(e)(2) shall be accomplished by owners or operators of affected facilities no later than December 31, 1990.

(3) Loading of VOCs. In addition to those requirements contained in 252:100-39-41(c),

stationary loading facilities shall be checked annually in accordance with EPA Test Method 21 or an alternative work practice for monitoring equipment for leaks consistent with 40 CFR Section 60.18(g) through 60.18(i). Leaks greater than 5,000 ppmv measured by EPA Test Method 21 or leaks detected by an alternative work practice for monitoring equipment leaks, 184
shall be repaired within 15 days. Facilities shall retain inspection and repair records for at least two years.

(4) Transport/delivery vessel requirements. In addition to the requirements contained in 252:100-39-41(d), facilities located in Tulsa County must meet the following requirements.

(A) Maintenance.

(i) The delivery vessel must be maintained so that it is vapor tight except when sampling, gauging, or inspecting. These activities shall not occur while the vehicle is loading or unloading or is in a pressurized state.

(ii) The delivery vessel must be equipped, maintained, and operated to receive vapors from sources identified in 252:100-39-41(b)(1) and 252:100-39-41(b)(2) and retain these and all other vapors until they are delivered into an authorized vapor recovery/disposal system.

(iii) Vessels with defective equipment such as boots, seals, and hoses, or with other deficiencies that would impair the vessels' ability to retain vapors or liquid shall be repaired within 5 days.

(iv) The certified testing facility must certify to the approving agency that the proper testing and repairs have occurred in accordance with 252:100-39-41(e)(4)(B)(ii).

(v) No owner or operator shall allow a delivery vessel to be filled at a facility unable to receive displaced VOCs nor service vessels unable to deliver displaced vapors except for vessels/facilities exempted in 252:100-39-41(b). Terminal owners shall not fill vessels that do not have a current certified pressure test on file.

(B) Inspection and testing requirements.

(i) Inspection. Delivery vessels may be inspected by representatives of the DEQ in order to determine their state of repair. Such inspection may consist of a visual inspection or a vapor test specified in 252:100-39-41(e)(4)(B)(iii). Any vapor test

that detects vapors exceeding 5,000 ppmv, or visual inspection, with or without imaging instrumentation, that detects emissions, shall require the owner or operator to make the necessary repairs within 5 days. Failure to certify within 10 days of a vapor test or visual inspection that the necessary repairs have been made may subject the owner or operator to enforcement. Upon certification of repairs, the vessel will be allowed to resume normal operation.

(ii) Pressure test.

(I) Delivery vessels, delivering or receiving gasoline must be tested one time per year for vapor tightness. The vapor tightness test must be consistent with EPA Test Method 27. Tests shall be performed by the owner or a transport service company. Test methods used to test these vessels by owners or testing companies must be approved for use by the Division Director.

(II) The vessel shall be considered to pass the test prescribed in 252:100-39-41(e)(4)(B)(ii)(I) when the test results show that the vessel and its vapor collection systems do not sustain a pressure change of more than 75 mm H2O within 5 minutes after it is pressurized to 450 mm H2O. There shall be no avoidable visible liquid leaks.

(iii) Vapor test. Testing of the tank trucks for compliance with vapor tightness requirements as required under 252:100-39-41(e)(4)(B)(i) must be consistent with EPA Test Method 21.

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252:100-39-41.1. Gasoline vapor leak detection method by combustible gas detector

(a) Principle. A combustible gas detector is used to indicate any incidence of leakage from gasoline truck tanks and vapor control systems. This qualitative monitoring procedure is an enforcement tool to confirm the continuing existence of leak-tight conditions.

(b) Definitions. The following words and terms, when used in this Section, shall have the following meaning, unless the context clearly indicates otherwise:

(1) "Truck tank" means any container, including associated pipes and fittings, that is used for the transport of gasoline.

(2) "Truck tank vapor collection equipment" means any piping, hoses, and devices on the

truck tank used to collect and route the gasoline vapors in the tank to the bulk terminal, bulk plant, or service station vapor control system.

(3) "Vapor control system" means any piping, hoses, equipment, and devices at the bulk terminal, bulk plant, or service station, which is used to collect, store, and/or process gasoline vapors.

(c) Applicability. The gasoline vapor leak detection procedure by combustible gas detector is applicable to determining the leak-tightness of gasoline truck tanks during loading without taking the truck tank out of service. The method is applicable only if the vapor control system does not create back-pressure in excess of the pressure limits of the truck tank compliance leak test. For vapor control systems, this method is applicable to determining leak-tightness at any time.

(d) Apparatus and specifications.

(1) Manometer. Liquid manometer, or equivalent, capable of measuring up to 6250 pascals (25 inches H2O) gauge pressure with +25 pascals (0.1 inch H2O) precision shall be used.

(2) Combustible gas detector. A portable hydrocarbon gas analyzer with associated sampling line and probe having the following specification shall be used.

(A) Safety. The detector shall be certified as safe for operation in explosive atmospheres.

(B) Range. The minimum range for the detector shall be 0-100 percent of the lower explosive limit (LEL) as propane.

(C) Probe diameter. The sampling probe shall have an internal diameter of 0.625 cm (1/4 inch).

(D) Probe length. The probe sampling line shall be of sufficient length for easy maneuverability during testing.

(E) Response time. The response time for full-scale deflection shall be less than 8 seconds for detector with sampling line and probe attached.

(e) Test procedure.

(1) Pressure. Place a pressure tap in the terminal, plant, or service station vapor control system, as close as possible to the connection with the truck tank. Record the pressure periodically during testing.

(2) Calibration. Calibrate the combustible gas detector with 2.2 percent propane by volume

in air for 100 percent LEL response.

(3) Monitoring procedure. During loading or unloading, check the periphery of all potential sources of leakage of the truck tank and of the terminal, plant, or service station vapor collection system with a combustible gas detector.

(A) Probe distance. The probe inlet shall be 2.5 cm from the potential leak source.

(B) Probe movement. Move the probe slowly (2.0 cm/second). If there is any meter deflection at a potential leak source, move the probe to locate the point of highest meter response.

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(C) Probe position. As much as possible, the probe inlet shall be positioned in the path of (parallel to) the vapor flow from a leak.

(D) Wind. Attempt as much as possible to block the wind from the area being monitored.

(4) Recording. Record the highest detector reading and location for each incidence of leakage.

TSD Appendix D:

Table D-3 of the Appendix D of 40 CFR part 58 - "Ozone Monitoring Season by state"

State	Begin Month	End Month
Alabama	March	October.
Alaska	April	October.
Arizona	January	December.
Arkansas	March	November.
California	January	December.
Colorado	January	December.
Connecticut	March	September.
Delaware	March	October.
District of Columbia	March	October.
Florida	January	December.
Georgia	March	October.
…..	……	…….
Ohio	March	October.
Oklahoma	March	November.
Oregon	May	September.
……	……..	……..
Virgin Islands	January	December.