

RAP: Tank and Loading Increases – Generalized Special Conditions

Introductory Special Conditions

| Special Condition Number | Special Condition | Applicability Notes |
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| 1. | This attachment authorizes emissions only from those emissions points listed in the RAP Emission Rates Table Attachment and the facilities covered by this attachment are authorized to emit subject to the emission rate limits on that table and other operating conditions specified in this attachment. | All projects |
| 2. | Current permit conditions apply unless any condition of this attachment is more stringent than the permit requirements, then for the purposes of complying with this permit, the attachment shall govern and be the standard by which compliance shall be demonstrated. | All projects |
| 3. | The permit holder shall maintain a Risk Management Plan at the site which describes the measures taken by facility personnel to prevent and respond to upsets or severe leaks of pollutants requiring disaster review. This plan shall include a monitoring and alarm system and notification of civil authorities, appropriate organizations, and potentially affected residences. Response procedures in the event of leaks other than minor valve leaks shall comply with the mitigation and emergency procedure. | Projects involving disaster review pollutants |

Federal and State Applicability

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| 4. | These facilities shall comply with all applicable requirements of the EPA regulations on Standards of Performance for New Stationary Sources promulgated in 40 CFR Part 60: | Sites subject to this rule |
| 4.A | Subpart A: General Provisions | Sites subject to this rule |
| 4.B | 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 | Sites subject to this rule |
| 4.C | 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 | Sites subject to this rule |
| 4.D | 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 | Sites subject to this rule |
| 4.E | Subpart XX: Standards of Performance for Bulk Gasoline Terminals | Sites subject to this rule |
| 4.F | Subpart QQQ: Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems | Sites subject to this rule |
| 4.G | Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015 | Sites subject to this rule |
| 4.H | Subpart OOOOa: Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015 | Sites subject to this rule |
| 5. | These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants in 40 CFR Part 61: | Sites subject to this rule |
| 5.A | Subpart A: General Provisions | Sites subject to this rule |
| 5.B | Subpart L: National Emission Standards for Benzene Emissions from Coke By-Product Recovery Plants | Sites subject to this rule |
| 5.C | Subpart Y: National Emission Standard for Benzene Emissions from Benzene Storage Vessels | Sites subject to this rule |
| 5.D | Subpart BB: National Emission Standard for Benzene Emissions from Benzene Transfer Operations | Sites subject to this rule |
| 5.E | Subpart FF: National Emission Standard for Benzene Waste Operations | Sites subject to this rule |

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| 6. | These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63: | Sites subject to this rule |
| 6.A | Subpart A: General Provisions | Sites subject to this rule |
| 6.B | Subpart G: National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater | Sites subject to this rule |
| 6.C | Subpart R: National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) | Sites subject to this rule |
| 6.D | Subpart U: National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins | Sites subject to this rule |
| 6.E | Subpart Y: National Emission Standards for Marine Tank Vessel Loading Operations | Sites subject to this rule |
| 6.F | Subpart CC: National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries | Sites subject to this rule |
| 6.G | Subpart DD: National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations | Sites subject to this rule |
| 6.H | Subpart HH: National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities | Sites subject to this rule |
| 6.I | Subpart OO: National Emission Standards for Tanks - Level 1 | Sites subject to this rule |
| 6.J | Subpart YY: National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards | Sites subject to this rule |
| 6.K | Subpart EEE: National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors | Sites subject to this rule |
| 6.L | Subpart JJJ: National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins | Sites subject to this rule |
| 6.M | Subpart PPP: National Emission Standards for Hazardous Air Pollutants Emissions for Polyether Polyols Production | Sites subject to this rule |
| 6.N | Subpart EEEE: National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) | Sites subject to this rule |
| 6.O | Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing | Sites subject to this rule |
| 6.P | Subpart GGGG: National Emission Standards for Hazardous Air Pollutants: Site Remediation | Sites subject to this rule |

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| 6.Q | Subpart BBBB: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities | Sites subject to this rule |
| 6.R | Subpart CCCCC: National Emission Standards for Hazardous Air Pollutants for Gasoline-Dispensing Facilities | Sites subject to this rule |
| 6.S | Subpart VVVVV: National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources | Sites subject to this rule |

Storage Tanks Operational Specifications

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| 7. | Tanks are approved to store the liquids listed in the RAP: TankLoading application. Storage tank throughput and service shall be limited to the following: [Table of tank emissions and pollutants organized by FIN] | Projects involving storage tanks |
| 8. | The true vapor pressure of any liquid stored at this facility in an uncontrolled atmospheric tank shall not exceed 11.0 psia. | Projects involving storage tanks |
| 9. | Tank liquid height for [FINs] shall be monitored continuously. A record of the tanks' height shall be maintained on a 12-month rolling basis. | Projects involving constant-level storage tanks |
| 10. | For heated tank(s) [FINs] the permit holder shall maintain the temperature of the liquid less than or equal to the temperature represented in the RAP: TankLoading application. The tank temperature shall be continuously monitored, and the temperature shall be recorded daily and during tank filling. | Projects involving heating storage tanks |
| 10.A | The permit holder shall maintain the temperature of the liquid less than or equal to the temperature, maintained at the vapor pressure represented in the RAP: TankLoading application. The tank temperature shall be continuously monitored, and the temperature shall be recorded daily and during tank filling. | Projects involving heating storage tanks |
| 10.B | The temperature monitor shall be calibrated on an annual basis to meet an accuracy specification of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^\circ\text{C}$. Up to 5 percent invalid monitoring data is acceptable on a rolling 12-month basis provided it is only generated when the monitor is broken down, out-of-control (producing inaccurate data); being repaired, having maintenance performed, or being calibrated. The data availability shall be calculated as the total tank operating hours for which quality assured data was recorded divided by the total tank hours in service. Invalid data generated due to other reasons is not allowed. The measurements missed shall be estimated using engineering judgement and the methods used recorded. | Projects involving heating storage tanks |
| 11. | Storage tanks are subject to the following requirements: The control requirements specified in parts A–E of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.50 psia at the maximum feed temperature or 95°F, whichever is greater, or (2) storage tanks smaller than 25,000 gallons. | Projects involving tanks storing materials with TVP ≥ 0.50 psia or capacity $\geq 5,000$ gallons |
| 11.A | The tank emissions must be controlled as specified in one of the paragraphs below: | Projects involving tanks storing materials with TVP ≥ 0.50 psia or capacity $\geq 5,000$ gallons |

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| 11.A(1) | An internal floating deck or "roof" shall be installed. A domed external floating roof tank is equivalent to an internal floating roof tank. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the floating roof: (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal. | Projects involving tanks storing materials with TVP ≥ 0.50 psia or capacity ≥ 5,000 gallons |
| 11.A(2) | An open-top tank shall contain a floating roof (external floating roof tank) which uses double seal or secondary seal technology provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor tight. | Projects involving tanks storing materials with TVP ≥ 0.50 psia or capacity ≥ 5,000 gallons |
| 11.A(3) | The tank shall be routed to a control device. | Projects involving tanks storing materials with TVP ≥ 0.50 psia or capacity ≥ 5,000 gallons |
| 11.B | For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and any seal gap measurements specified in 40 CFR § 60.113b (40 CFR § 60.113b) Testing and Procedures (as amended at 54 FR 32973, Aug. 11, 1989) to verify fitting and seal integrity. Records shall be maintained of the dates the inspection was performed, any measurements made, results of inspections and measurements made (including raw data), and actions taken to correct any deficiencies noted. | Projects involving tanks storing materials with TVP ≥ 0.50 psia or capacity ≥ 5,000 gallons |
| 11.C | For any tank equipped with a floating roof, the floating roof design shall incorporate sufficient flotation to conform to the requirements of API Code 650 dated November 1, 1998 except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials. | Projects involving tanks storing materials with TVP ≥ 0.50 psia or capacity ≥ 5,000 gallons |
| 11.D | Except for labels, logos, etc. not to exceed 15 percent of the tank total surface area, uninsulated tank exterior surfaces exposed to the sun shall be white or unpainted aluminum. Storage tanks must be equipped with permanent submerged fill pipes. | Projects involving tanks storing materials with TVP ≥ 0.50 psia or capacity ≥ 5,000 gallons |
| 11.E | The permit holder shall maintain a record of tank throughput for the previous month and the past consecutive 12-month period for each tank. | Projects involving tanks storing materials with TVP ≥ 0.50 psia or capacity ≥ 5,000 gallons |

Loading Operational Specifications

| Special Condition Number | Special Condition | Applicability Notes |
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| 12. | All loading operations are limited to the liquids, rates, and throughputs identified in the RAP: TankLoading application. | Projects involving loading |
| 13. | All lines and connectors shall be visually inspected for any defects prior to hookup. Lines and connectors that are visibly damaged shall be removed from service. Operations shall cease immediately upon detection of any liquid leaking from the lines or connections. | Projects involving loading |
| 14. | Loading of materials with a vapor pressure of equal or greater than 0.5 pounds per inch square atmosphere (psia) shall be vented to a control. | Projects involving loading |
| 15. | The permit holder shall not allow a tank truck to be filled unless certification has been presented indicating that the truck has passed a vapor tightness test within the past 12 months conforming to the requirements of 40 CFR 60, Subpart XX. | Projects involving controlled truck loading achieving 98.7% collection efficiency |
| 16. | The permit holder shall not allow a tank truck to be filled unless certification has been presented indicating that the truck has passed a vapor tightness test within the past 12 months conforming to the requirements of 40 CFR 63, Subpart R. | Projects involving controlled truck loading achieving 99.2% collection efficiency |
| 17. | A blower system shall be installed to produce a vacuum in the tank truck during all loading operations. A pressure/vacuum gauge shall be installed on the suction side of the loading rack blower system adjacent to the truck being loaded to verify a vacuum in that vessel. Loading shall not occur unless there is a vacuum of at least 1.5 inch water column being maintained by the vacuum-assist vapor collection system when loading trucks. The vacuum shall be recorded every 15 minutes during loading. | Projects involving controlled truck loading achieving 100% collection efficiency |
| 18. | In order to ensure 100-percent capture efficiency of VOC during railcar loading, the following requirements must be met: | Projects involving railcar loading |
| 18.A | Each railcar to be loaded shall be pressure certified by DOT testing or equivalent. The holder of this permit shall not allow a railcar to be loaded unless it has passed the DOT testing or equivalent. A record of the date on which the testing was performed shall be maintained for each railcar and shall be sufficient evidence that the testing was performed. | Projects involving railcar loading |
| 18.B | Hard-piped or bolted connections, and/or dry lock design hard-piped loading arms shall be used for all pressurized loading operations. | Projects involving railcar loading |
| 18.C | Each railcar to be loaded shall be designed to handle a pressure of 15 psi gauge or greater. | Projects involving railcar loading |
| 18.D | Each railcar to be loaded shall not be equipped with a spew gauge. | Projects involving railcar loading |

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| 19. | Loading of liquids with vapor pressure greater than or equal 0.5 psi into containers and/or drums shall only be performed within a total enclosure or within a partial enclosure designed and operate with a capture velocity of at least 200 fpm (if outside use 300 to 500) at the container vent. The enclosure shall be designed and operated consistent with the specification in Industrial Ventilation: A Manual of Recommended Practice. | Gasoline terminals or sites in an RVP county |
| 20. | The loading or dispensing of gasoline is limited to gasolines meeting the monthly RVP standards specified in the versions of 40 CFR 80.27(a)(2) and ASTM D4814 which are in effect as of this RAP. These monthly maximum RVP limits are as follows: January-March: 13.5 psia April: 11.5 psia May: 9 psia June-August: 7.8 psia September 1-15: 7.8 psia September 16-30: 10 psia October-December: 11.5 psia | Gasoline terminals or sites in an RVP county |
| 21. | The holder of this permit shall obtain the RVP data provided by the delivering refinery for each batch of gasoline delivered to the terminal by pipeline. Gasoline RVP data shall be reduced to monthly weighted averages of pipeline receipts for purposes of determining compliance with the conditions of this permit. | Gasoline terminals or sites in an RVP county |
| 22. | The benzene content of any grade of gasoline processed at this terminal shall not exceed [value] percent by weight in the liquid. Gasoline shall be analyzed for benzene two times per year. One test shall be during the summer (May 1 -September 15) and the other test shall be during the winter (November 1 - February 29). The record shall report benzene content for all grades of gasoline. Gasoline analyses the delivering refiner are acceptable in place of on-site analysis. | Gasoline terminals or sites in an RVP county |

Flare Operational Specifications

| Special Condition Number | Special Condition | Applicability Notes |
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| 23. | Flares shall be designed and operated in accordance with the following requirements: | Projects involving a flare |
| 23.A | <p>The flare systems shall be designed such that the combined assist [fuel type] and waste stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity at all times when emissions may be vented to them.</p> <p>The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate regional office to demonstrate compliance with these requirements.</p> | Projects involving a flare |
| 23.B | The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple, infrared monitor, or ultraviolet monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to and shall be calibrated at a frequency in accordance with, the manufacturer's specifications. | Projects involving a flare |
| 23.C | The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. This shall be ensured by the use of [steam or air] assist to the flare. | Projects involving a flare |
| 23.D | A minimum of 0.3 scf of supplemental [fuel type] for every 1 scf of waste gas shall be supplied to maintain the minimum heating value and complete combustion. | Projects involving a flare |
| 23.E | <p>Calibration of the analyzer shall follow the procedures and requirements of Section 10.0 of 40 CFR Part 60, Appendix B, Performance Specification 9, as amended through October 17, 2000 (65 FR 61744), except that the multi-point calibration procedure in Section 10.1 of Performance Specification 9 shall be performed at least once every calendar quarter instead of once every month, and the mid-level calibration check procedure in Section 10.2 of Performance Specification 9 shall be performed at least once every calendar week instead of once every 24 hours. The calibration gases used for calibration procedures shall be in accordance with Section 7.1 of Performance Specification 9. Net heating value of the gas combusted in the flare shall be calculated according to the equation given in 40 CFR §60.18(f)(3) as amended through October 17, 2000 (65 FR 61744).</p> <p>The calorimeter shall be calibrated, installed, operated, and maintained, in accordance with manufacturer recommendations, to continuously measure and record the net heating value of the gas sent to the flare, in Btu/scf of the gas.</p> | <p>Projects involving a flare with a gas analyzer</p> <p>Projects involving a flare with a Btu calorimeter</p> |

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| 23.F | The permit holder shall install a continuous flow monitor that provides a record of the vent stream flow to the flare. The flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow shall be recorded each hour. | Projects involving a flare |
| 23.G | The monitors and analyzers shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12-month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §§60.18(f)(3) and 60.18(f)(4) shall be recorded at least once every hour. | Projects involving a flare |

VCU Operational Specifications

| Special Condition Number | Special Condition | Applicability Notes |
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| 24. | VCUs shall be designed and operated in accordance with the following requirements: | Projects involving a VCU |
| 24.A | The VCU shall achieve % control of the waste gas directed to it. This shall be ensured by maintaining the temperature 1400 °F in, or immediately downstream of, the combustion chamber above prior to the initial stack test performed in accordance with the stack test Special Condition. Following the completion of that stack test, the six-minute average temperature shall be maintained above the minimum one-hour average temperature maintained during the last satisfactory stack test. | Projects involving a VCU |
| 24.B | The temperature measurement device shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency. The temperature monitor shall be installed, calibrated or have a calibration check performed at least annually, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of ±2 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C. | Projects involving a VCU |
| 24.C | Quality assured (or valid) data must be generated when the VCU is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the VCU operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. | Projects involving a VCU |
| 24.D | The vapor combustor shall be operated with no visible emissions and have a constant pilot flame during all times waste gas could be directed to it. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to and shall be calibrated or have a calibration check performed at a frequency in accordance with, the manufacturer's specifications. | Projects involving a VCU |

CAS Operational Specifications

| Special Condition Number | Special Condition | Applicability Notes |
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| 25. | [FINs] shall vent through a CAS consisting of at least two activated carbon canisters that are connected in series. | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 25.A | The CAS shall be sampled [frequency] to determine breakthrough of VOC. The sampling point shall be at the outlet of the initial canister but before the inlet to the second or final polishing canister. Sampling shall be done during maximum loading rate and/or tank filling. | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 25.B | The VOC sampling and analysis shall be performed using an instrument with an FID, or a TCEQ-approved alternative detector. The instrument/FID must meet all requirements specified in Section 8.1 of EPA Method 21 (40 CFR 60, Appendix A). Sampling and analysis for VOC breakthrough shall be performed as follows: | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 25.B(1) | Immediately prior to performing sampling, the instrument/FID shall be calibrated with zero and span calibration gas mixtures. Zero gas shall be certified to contain less than 0.1 ppmv total hydrocarbons. Span calibration gas shall be methane at a concentration within ± 10 percent of [value] ppmv and certified by the manufacturer to be ± 2 percent accurate. Calibration error for the zero and span calibration gas checks must be less than ± 5 percent of the span calibration gas value before sampling may be conducted. | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 25.B(2) | The sampling point shall be at the outlet of the initial canister but before the inlet to the second or final polishing canister. Sample ports or connections must be designed such that air leakage into the sample port does not occur during sampling. | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 25.B(3) | During sampling, data recording shall not begin until after two times the instrument response time. The VOC concentration shall be monitored for at least 5 minutes, recording 1-minute averages. | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 25.C | Breakthrough shall be defined as the highest 1-minute average measured VOC concentration at or exceeding [value] ppmv. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within 72 hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame. | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |

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| 25.D | Records of the CAS monitoring maintained at the plant site, shall include (but are not limited to) the following: | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 25.D(1) | Sample time and date. | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 25.D(2) | Monitoring results (ppmv). | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 25.D(3) | Corrective action taken including the time and date of that action. | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 25.D(4) | Process operations occurring at the time of sampling. | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 25.E | Alternate monitoring or sampling requirements that are equivalent or better may be approved by the TCEQ Regional Director. Alternate requirements must be approved in writing before they can be used for compliance purposes. | Projects involving a non-regenerative CAS controlling < 100 tpy of VOC emissions |
| 26. (option 1) | [FINs] shall vent through a CAS consisting of at least two activated carbon canisters working in parallel such that the vent emissions are alternately controlled by each canister while the other canister is regenerated. The VOC concentration of the CAS exhaust shall be monitored and recorded by a CEMS that is capable of measuring organic compound concentration in the exhaust air stream of the control device. | Projects involving a regenerative CAS and not at a gasoline terminal |

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| 26.A | <p>The CAS shall be sampled and recorded continuously by a CEMS to assure the VOC concentration does not exceed [value] ppmv. An alarm shall be installed such that an operator is alerted and can take action before the CAS outlet concentration exceeds the breakthrough concentration.</p> | <p>Projects involving a regenerative CAS and not at a gasoline terminal</p> |
| 26.B | <p>The CEMS shall meet the design and performance specifications, pass the field tests, meet the installation requirements, and complete the data analysis and reporting requirements specified in Performance Specification 8A, 40 CFR Part 60, Appendix B.</p> <p>The system shall be zeroed and spanned daily when the CAS is in operation, and corrective action taken when the 24-hour calibration drift exceeds two times the amounts specified in Performance Specification 8A. The CEMS shall be considered out-of-control, as defined in 40 CFR 60, Appendix F, Section 4.3.1, if the daily zero or span calibration drift checks exceed two times the allowable drift specified in Performance Specification 8A for five consecutive daily calibration drift checks.</p> <p>Each monitor shall be quality-assured at least quarterly in accordance with 40 CFR Part 60, Appendix F, Procedure 1. Any failed quarterly audit and CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. After any failed quarterly audit, the CEMS shall be considered out-of-control, as defined in 40 CFR 60, Appendix F, Section 5.2, until the successful completion of a corresponding audit following the corrective action.</p> <p>Quality assured (or valid) data must be generated when the CAS is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the CAS operated over the previous rolling 12-month period. The CAS measurements missed shall be estimated using engineering judgment and the methods used recorded.</p> | <p>Projects involving a regenerative CAS and not at a gasoline terminal</p> |
| 26.C | <p>When the CEMS is out of service, proper operation of the CAS shall be ensured through system inspection and evaluation and operation in accordance with the manufacturer's recommendations, and after 180 days of operation, also within parameters shown to assure compliance with the maximum concentration limitation. Operating parameters for the CAS system shall be checked to assure compliance with the manufacturer's recommendations and past compliant practice operating ranges. A canister cycle checklist will be maintained as the CAS record for all periods when the CEMS is out of service.</p> | <p>Projects involving a regenerative CAS and not at a gasoline terminal</p> |

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| 26.D | During any CEMS downtime or out-of-control period exceeding 24 hours, the facilities controlled by CAS shall be shut down or the CAS exhaust and vent between the first and second canister shall be sampled at a frequency equal to 25 percent of the normal operating time to canister replacement regeneration. The VOC sampling and analysis shall be performed using an instrument with an FID, or a TCEQ-approved alternative detector. The instrument/FID must meet all requirements specified in Section 8.1 of EPA Method 21 (40 CFR 60, Appendix A). Sampling and analysis for VOC concentration shall be performed as follows: | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.D(1) | The instrument/FID shall be calibrated daily with zero and span cylinder calibration gas mixtures. Zero gas shall be certified to contain less than 0.1 ppmv total hydrocarbons. Span calibration gas shall be propane at a concentration within ± 10 percent of the breakthrough concentration and certified by the manufacturer to be ± 2 percent accurate. Calibration error for the zero and span calibration gas checks must be less than ± 5 percent of the span calibration gas value before sampling may be conducted. | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.D(2) | Sample ports or connections must be designed such that air leakage into the sample port does not occur during sampling. | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.D(3) | During sampling, data recording shall not begin until after two times the instrument response time. The VOC concentration shall be monitored for at least 5 minutes, recording 1-minute averages. | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.E | Compliance with the breakthrough concentration shall be determined on a 1-minute average basis. While monitoring during CEMS downtime or out-of-control periods, compliance shall be determined by the highest 1-minute average. | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.F | Records of the CAS monitoring maintained at the plant site shall include (but are not limited to) the following: | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.F(1) | CEMS monitoring results on a 15-minute average basis, and 1-minute averages for any time periods when maximum allowable concentration is exceeded; | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.F(2) | CEMS daily calibration and quarterly audit results; | Projects involving a regenerative CAS and not at a gasoline terminal |

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| 26.F(3) | Manufacturers recommended operating ranges and actual compliant operating ranges, with the canister cycle check list to be used during periodic monitoring; | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.F(4) | Results of all periodic monitoring conducted during CEMS downtime or out-of-control periods; and | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.F(5) | Corrective actions taken (including the time and date of that action). | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.G | Alternate monitoring or sampling requirements that are equivalent or better may be approved by the TCEQ Regional Director. Alternate requirements must be approved in writing before they can be used for compliance purposes. | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.H | Visual inspection for carbon build up around the stack shall occur once a week. If carbon build up is noticed, it shall be recorded, the CAS shall be shut down, and corrective action shall be taken in accordance with the system maintenance manual. | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.I | All personnel involved in maintenance of the CAS shall be trained by the manufacturer in proper maintenance procedures. Certification of such training shall be provided by the manufacturer for each affected individual. A record of certification shall be maintained at the terminal for each affected individual. | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26.J | Maintenance shall be performed on the CAS according to the manufacturer's recommended guidelines. The permit holder shall obtain a yearly certification by the manufacturer or a qualified contractor that the recommended maintenance is being performed. | Projects involving a regenerative CAS and not at a gasoline terminal |
| 26. (option 2) | [FINs] shall vent through a CAS consisting of at least two activated carbon canisters working in parallel such that the vent emissions are alternately controlled by each canister while the other canister is regenerated. | Projects at a gasoline terminal involving a regenerative CAS |
| 26.A | The permit holder shall install, calibrate, and maintain a CEMS to measure and record the in-stack concentration of VOC from the CAS. | Projects at a gasoline terminal involving a regenerative CAS |

| Special Condition Number | Special Condition | Applicability Notes |
|--------------------------|---|--|
| 26.B | The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division for requirements to be met. | Projects at a gasoline terminal involving a regenerative CAS |
| 26.C | Each monitor shall be quality-assured at least semiannually using CGA in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., two successive semiannual CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive semiannual audits shall occur no closer than four months. After completion of four consecutive satisfactory semiannual CGAs, the permit holder may submit a request to perform this monitoring on a less frequent basis. This submission shall be in the form of a permit alteration request to the Air Permits Division of the TCEQ. | Projects at a gasoline terminal involving a regenerative CAS |
| 26.D | The monitoring data shall be reduced to 15-minute average concentrations at least once every day, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be converted to the unit of pounds per hour at least once every week to determine the hourly emission rates by following the method represented in the application. | Projects at a gasoline terminal involving a regenerative CAS |
| 26.E | All monitoring data and quality-assurance data shall be maintained by the source. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit. | Projects at a gasoline terminal involving a regenerative CAS |
| 26.F | The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing. | Projects at a gasoline terminal involving a regenerative CAS |

| Special Condition Number | Special Condition | Applicability Notes |
|--------------------------|--|--|
| 26.G | <p>Quality-assured (or valid) data must be generated when the facility generating emissions is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the facility generating emissions operated over the previous rolling 12-month period.</p> <p>When the CEMS is out of service, proper operation of the CAS shall be ensured through system inspection and evaluation following the manufacturer's daily checklist. Operating parameters for the CAS system shall be checked against the manufacturer's recommended operating range. The daily checklist will be maintained as the CAS record for all periods when the CEMS is out of service.</p> | Projects at a gasoline terminal involving a regenerative CAS |
| 26.H | <p>An alarm shall be installed such that an operator is alerted if the CAS outlet concentration exceeds a one-hour rolling average of 6,500 ppmv. The one-hour rolling average outlet concentration shall not exceed 9,500 ppmv.</p> <p>Records of the corrective action taken following an alarm will be maintained at the terminal site and shall include the time and date of that action.</p> | Projects at a gasoline terminal involving a regenerative CAS |
| 26.I | Records of the CAS monitoring maintained at the plant site shall include (but are not limited to) the following: | Projects at a gasoline terminal involving a regenerative CAS |
| 26.I(1) | CEMS monitoring results on a 15-minute average basis, and 1-minute averages for any time periods when maximum allowable concentration is exceeded; | Projects at a gasoline terminal involving a regenerative CAS |
| 26.I(2) | CEMS daily calibration and quarterly audit results; | Projects at a gasoline terminal involving a regenerative CAS |
| 26.I(3) | Manufacturers recommended operating ranges and actual compliant operating ranges, with the canister cycle check list to be used during periodic monitoring; | Projects at a gasoline terminal involving a regenerative CAS |
| 26.I(4) | Results of all periodic monitoring conducted during CEMS downtime or out-of-control periods; and | Projects at a gasoline terminal involving a regenerative CAS |
| 26.I(5) | Corrective actions taken (including the time and date of that action). | Projects at a gasoline terminal involving a regenerative CAS |

| Special Condition Number | Special Condition | Applicability Notes |
|--------------------------|---|---|
| 27. | [FINs] shall vent through a CAS consisting of at least two activated carbon canisters that are connected in series. | Projects involving a non-regenerative CAS controlling ≥ 100 tpy of VOC emissions |
| 27.A | The CAS shall be sampled and recorded continuously by a CEMS to determine breakthrough of VOC through the first canister and assure the VOC concentration does not exceed the breakthrough concentration from the second or final polishing canister. | Projects involving a non-regenerative CAS controlling ≥ 100 tpy of VOC emissions |
| 27.B | Breakthrough of the first canister shall be defined as the highest 1-minute average measured VOC concentration at or exceeding the breakthrough concentration of [value] ppmv. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within 72 hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame. | Projects involving a non-regenerative CAS controlling ≥ 100 tpy of VOC emissions |

| Special Condition Number | Special Condition | Applicability Notes |
|--------------------------|---|---|
| 27.C | <p>The CEMS shall meet the design and performance specifications, pass the field tests, meet the installation requirements, and complete the data analysis and reporting requirements specified in Performance Specification 8A, (40 CFR Part 60, Appendix B).</p> <p>The system shall be zeroed and spanned daily when the CAS is in operation, and corrective action taken when the 24-hour calibration drift exceeds two times the amounts specified in Performance Specification 8A. The CEMS shall be considered out-of-control, as defined in 40 CFR 60, Appendix F, Section 4.3.1, if the daily zero or span calibration drift checks exceed two times the allowable drift specified in Performance Specification 8A for five consecutive daily calibration drift checks.</p> <p>Each monitor shall be quality-assured at least quarterly in accordance with 40 CFR Part 60, Appendix F, Procedure 1. Any failed quarterly audit and CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. After any failed quarterly audit, the CEMS shall be considered out-of-control, as defined in 40 CFR 60, Appendix F, Section 5.2, until the successful completion of a corresponding audit following the corrective action.</p> <p>Quality assured (or valid) data must be generated when the CAS is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the CAS operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.</p> | Projects involving a non-regenerative CAS controlling ≥ 100 tpy of VOC emissions |

| Special Condition Number | Special Condition | Applicability Notes |
|--------------------------|--|---|
| 27.D | When the CEMS is out of service, proper operation of the CAS shall be ensured through system inspection and evaluation and operation in accordance with the manufacturer's recommendations, and after 180 days of operation, also within parameters shown to assure compliance with the maximum concentration limitation. Operating parameters for the CAS system shall be checked to assure compliance with the manufacturer's recommendations and past compliant practice operating ranges. A canister cycle checklist will be maintained as the CAS record for all periods when the CEMS is out of service. | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |
| 27.E | During any CEMS downtime or out-of-control period exceeding 24 hours, any facility controlled by CAS shall be shut down or the CAS exhaust shall be sampled at a frequency equal to 25 percent of the normal operating time to regeneration. The VOC sampling and analysis shall be performed using an instrument with an FID, or a TCEQ-approved alternative detector. The instrument/FID must meet all requirements specified in Section 8.1 of EPA Method 21 (40 CFR 60, Appendix A). Sampling and analysis for VOC concentration shall be performed as follows: | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |
| 27.E(1) | The instrument/FID shall be calibrated daily with zero and span cylinder calibration gas mixtures. Zero gas shall be certified to contain less than 0.1 ppmv total hydrocarbons. Span calibration gas shall be propane at a concentration within \pm 10 percent of the breakthrough concentration and certified by the manufacturer to be \pm 2 percent accurate. Calibration error for the zero and span calibration gas checks must be less than \pm 5 percent of the span calibration gas value before sampling may be conducted. | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |
| 27.E(2) | Sample ports or connections must be designed such that air leakage into the sample port does not occur during sampling. | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |
| 27.E(3) | During sampling, data recording shall not begin until after two times the instrument response time. The VOC concentration shall be monitored for at least 5 minutes, recording 1-minute averages. | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |
| 27.F | Compliance with the breakthrough concentration shall be determined on a 1-minute average basis. While monitoring during CEMS downtime or out-of-control periods, compliance shall be determined by the highest 1-minute average. | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |
| 27.G | Records of the CAS monitoring maintained at the plant site shall include (but are not limited to) the following: | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |

| Special Condition Number | Special Condition | Applicability Notes |
|--------------------------|--|---|
| 27.G(1) | CEMS monitoring results on a 15-minute average basis, and 1-minute averages for any time periods when maximum allowable concentration is exceeded; | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |
| 27.G(2) | CEMS daily calibration and quarterly audit results; | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |
| 27.G(3) | Manufacturers recommended operating ranges and actual compliant operating ranges, with the canister cycle check list to be used during periodic monitoring; | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |
| 27.G(4) | Results of all periodic monitoring conducted during CEMS downtime or out-of-control periods; and | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |
| 27.G(5) | Corrective actions taken (including the time and date of that action). | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |
| 27.H | Alternate monitoring or sampling requirements that are equivalent or better may be approved by the TCEQ Regional Director. Alternate requirements must be approved in writing before they can be used for compliance purposes. | Projects involving a non-regenerative CAS controlling \geq 100 tpy of VOC emissions |

Initial Determination of Compliance

| Special Condition Number | Special Condition | Applicability Notes |
|--------------------------|--|--------------------------|
| 28. | <p>The permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the VCU to demonstrate compliance with the MAERT. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and the EPA Reference Methods.</p> <p>Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for 40 CFR Part 60 testing which must have EPA approval shall be submitted to the TCEQ Regional Director.</p> | Projects involving a VCU |
| 28.A | The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include: | Projects involving a VCU |
| 28.A(1) | Proposed date for pretest meeting. | Projects involving a VCU |
| 28.A(2) | Date sampling will occur. | Projects involving a VCU |
| 28.A(3) | Name of firm conducting sampling. | Projects involving a VCU |
| 28.A(4) | Type of sampling equipment to be used. | Projects involving a VCU |
| 28.A(5) | Method or procedure to be used in sampling. | Projects involving a VCU |
| 28.A(6) | Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures. | Projects involving a VCU |
| 28.A(7) | Procedure/parameters to be used to determine worst case emissions. | Projects involving a VCU |
| 28.A(8) | The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures. | Projects involving a VCU |

| Special Condition Number | Special Condition | Applicability Notes |
|--------------------------|---|--------------------------|
| 28.B | Air contaminants emitted from the VCU to be tested for include (but are not limited to) NOx, VOC and O2. | Projects involving a VCU |
| 28.C | Sampling shall occur within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office. | Projects involving a VCU |
| 28.D | <p>The facility being sampled shall operate maximum production during stack emission testing. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.</p> <p>During subsequent operations, if the maximum production is greater than that recorded during the test period, stack sampling shall be performed at the new operating conditions within 120 days. This sampling may be waived by the TCEQ Air Section Manager for the region.</p> | Projects involving a VCU |
| 28.E | <p>Copies of the final sampling report shall be forwarded to the offices below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled "Chapter 14, Contents of Sampling Reports" of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:</p> <p>One copy to the appropriate TCEQ Regional Office. One copy to each local air pollution control program.</p> | Projects involving a VCU |
| 28.F | Sampling ports and platform(s) shall be incorporated into the design of (source stack and EPN) according to the specifications set forth in the attachment entitled "Chapter 2, Guidelines For Stack Sampling Facilities" of the TCEQ Sampling Procedures Manual. Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director. | Projects involving a VCU |

Compliance Assurance Monitoring

| Special Condition Number | Special Condition | Applicability Notes |
|--------------------------|--|---|
| 29. | The following requirements apply to capture systems for [control device(s)]: | Projects involving a flare and/or VCU controlling units subject to CAM |
| 29.A | Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or | Projects involving a flare and/or VCU controlling units subject to CAM |
| 29.B | Once a year, verify the capture system is leak free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background. | Projects involving a flare and/or VCU controlling units subject to CAM |
| 29.C | The following control device(s) shall not have a bypass: [control device(s)]. | Projects involving a flare and/or VCU controlling units subject to CAM and not equipped with a bypass |
| 29.D | The [control device(s)] has a bypass. Comply with either of the following requirements: | Projects involving a flare and/or VCU controlling units subject to CAM and equipped with a bypass |
| 29.D(1) | Install a flow indicator that records and verifies zero flow at least once every fifteen minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or | Projects involving a flare and/or VCU controlling units subject to CAM and equipped with a bypass |

| Special Condition Number | Special Condition | Applicability Notes |
|--------------------------|---|---|
| 29.D(2) | Once a month, inspect the valves, verifying that the position of the valves and the condition of the car seals prevent flow out the bypass. | Projects involving a flare and/or VCU controlling units subject to CAM and equipped with a bypass |
| 29.E | A bypass does not include authorized analyzer vents, highpoint bleeder vents, low point drains, or rupture discs upstream of pressure relief valves if the pressure between the disc and relief valve is monitored and recorded at least weekly. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when it is required to be in service. | Projects involving a flare and/or VCU controlling units subject to CAM |
| 29.F | Records of the inspections required shall be maintained and if the results of any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action. | Projects involving a flare and/or VCU controlling units subject to CAM |