

## RAP: Marine Loading – Generalized Special Conditions

### Introductory Special Conditions

Special Condition Number	Special Condition	Applicability Notes
1.	This attachment authorizes emissions only from those emissions points listed in the Readily Available Permit (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.	Amendments only
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.	Amendments only
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
4.	Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the RAP Emission Rates Table Attachment. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.	All projects
5.	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:	All sites subject to this rule
5.A	Subpart A: General Provisions	All sites subject to this rule
5.B	Subpart D: Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971	All sites subject to this rule
5.C	Subpart Da: Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978	All sites subject to this rule
5.D	Subpart Db: Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	All sites subject to this rule
5.E	Subpart Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	All sites subject to this rule

Federal and State Applicability

Special Condition Number	Special Condition	Applicability Notes
5.F	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	All sites subject to this rule
5.G	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	All sites subject to this rule
5.H	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	All sites subject to this rule
5.I	Subpart XX: Standards of Performance for Bulk Gasoline Terminals	All sites subject to this rule
5.J	Subpart QQQ: Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems	All sites subject to this rule
5.K	Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	All sites subject to this rule
5.L	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	All sites subject to this rule
5.M	Subpart OOOOa: Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015	All sites subject to this rule
6.	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:	All sites subject to this rule
6.A	Subpart A: General Provisions	All sites subject to this rule
6.B	Subpart J: National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene	All sites subject to this rule
6.C	Subpart L: National Emission Standards for Benzene Emissions from Coke By-Product Recovery Plants	All sites subject to this rule
6.D	Subpart Y: National Emission Standard for Benzene Emissions from Benzene Storage Vessels	All sites subject to this rule
6.E	Subpart BB: National Emission Standard for Benzene Emissions from Benzene Transfer Operations	All sites subject to this rule
6.F	Subpart FF: National Emission Standard for Benzene Waste Operations	All sites subject to this rule

Special Condition Number	Special Condition	Applicability Notes
7.	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:	All sites subject to this rule
7.A	Subpart A: General Provisions	All sites subject to this rule
7.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	All sites subject to this rule
7.C	Subpart R: National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)	All sites subject to this rule
7.D	Subpart U: National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins	All sites subject to this rule
7.E	Subpart Y: National Emission Standards for Marine Tank Vessel Loading Operations	All sites subject to this rule
7.F	Subpart CC: National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries	All sites subject to this rule
7.G	Subpart DD: National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations	All sites subject to this rule
7.H	Subpart HH: National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities	All sites subject to this rule
7.I	Subpart OO: National Emission Standards for Tanks - Level 1	All sites subject to this rule
7.J	Subpart YY: National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards	All sites subject to this rule
7.K	Subpart EEE: National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors	All sites subject to this rule
7.L	Subpart JJJ: National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins	All sites subject to this rule
7.M	Subpart PPP: National Emission Standards for Hazardous Air Pollutants Emissions for Polyether Polyols Production	All sites subject to this rule
7.N	Subpart EEEE: National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)	All sites subject to this rule
7.O	Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing	All sites subject to this rule

Special Condition Number	Special Condition	Applicability Notes
7.P	Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	All sites subject to this rule
7.Q	Subpart DDDDD Industrial, Commercial and Institutional Boilers and Process Heaters (major sources)	All sites subject to this rule
7.R	Subpart GGGGG: National Emission Standards for Hazardous Air Pollutants: Site Remediation	All sites subject to this rule
7.S	Subpart BBBBBB: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities	All sites subject to this rule
7.T	Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Gasoline-Dispensing Facilities	All sites subject to this rule
7.U	Subpart VVVVVV: National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	All sites subject to this rule

Leak Detection and Repair Monitoring Program

Special Condition Number	Special Condition	Applicability Notes
8.	<p>Piping, Valves, Connectors, Pumps, Agitators, and Compressors – 28VHP</p> <p>The following requirements apply to piping, valves, connectors, pumps, agitators, and compressors containing or in contact with fluids that could reasonably be expected to contain greater than or equal to 10 weight percent VOC at any time.</p>	Projects involving the 28VHP LDAR program
8.A	<p>The requirements of paragraphs F and G shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.</p> <p>The exempted components may be identified by one or more of the following methods:</p> <ul style="list-style-type: none"> <li>-piping and instrumentation diagram (PID);</li> <li>-a written or electronic database or electronic file;</li> <li>-color coding;</li> <li>-a form of weatherproof identification; or</li> <li>-designation of exempted process unit boundaries.</li> </ul>	Projects involving the 28VHP LDAR program
8.B	Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.	Projects involving the 28VHP LDAR program
8.C	New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.	Projects involving the 28VHP LDAR program
8.D	<p>To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in Paragraph A above. If an unsafe to monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times. A difficult to monitor component for which quarterly monitoring is specified may instead be monitored annually.</p>	Projects involving the 28VHP LDAR program

Special Condition Number	Special Condition	Applicability Notes
8.E	<p>New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.</p> <p>Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open-ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;</p>	Projects involving the 28VHP LDAR program
8.E(1)	a cap, blind flange, plug, or second valve must be installed on the line or valve; or	Projects involving the 28VHP LDAR program
8.E(2)	the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72-hour period following the creation of the open-ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.	Projects involving the 28VHP LDAR program

Special Condition Number	Special Condition	Applicability Notes
8.F	<p>Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.</p> <p>A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.</p> <p>The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.</p> <p>Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.</p>	Projects involving the 28VHP LDAR program
8.G	<p>Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.</p>	Projects involving the 28VHP LDAR program

Special Condition Number	Special Condition	Applicability Notes
8.H	<p>Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.</p>	<p>Projects involving the 28VHP LDAR program</p>
8.I	<p>A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shut down as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I) or 500 pounds, whichever is greater, the TCEQ Regional Manager and any local programs shall be notified and the TCEQ Executive Director may require early unit shut down or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.</p>	<p>Projects involving the 28VHP LDAR program</p>
8.J	<p>Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.</p>	<p>Projects involving the 28VHP LDAR program</p>



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8.K	Alternative monitoring frequency schedules of 30 TAC 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F and G of this condition.	Projects involving the 28VHP LDAR program
8.L	Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.	Projects involving the 28VHP LDAR program
9.	Piping, Valves, Connectors, Pumps, Agitators and Compressors, in contact with Insert Compound - Intensive Directed Maintenance – 28MID  Except as may be provided for in the Special Conditions of this permit, the following requirements apply to the above-referenced equipment:	Projects involving the 28MID LDAR program
9.A	The requirements of paragraphs F and G shall not apply (1) where the volatile organic compounds (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made available upon request  The exempted components may be identified by one or more of the following methods: -piping and instrumentation diagram (PID); -a written or electronic database or electronic file; -color coding; -a form of weatherproof identification; or -designation of exempted process unit boundaries.	Projects involving the 28MID LDAR program
9.B	Construction of new and reworked piping, valves, pump systems, agitators, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.	Projects involving the 28MID LDAR program
9.C	New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.	Projects involving the 28MID LDAR program

Special Condition Number	Special Condition	Applicability Notes
9.D	<p>To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in Paragraph A above. If an unsafe to monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times. A difficult to monitor component for which quarterly monitoring is specified may instead be monitored annually.</p>	Projects involving the 28MID LDAR program
9.E	<p>New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.</p> <p>Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open-ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;</p>	Projects involving the 28MID LDAR program
9.E(1)	a cap, blind flange, plug, or second valve must be installed on the line or valve; or	Projects involving the 28MID LDAR program
9.E(2)	<p>the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once by the end of the 72 hours period following the creation of the open-ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.</p>	Projects involving the 28MID LDAR program

Special Condition Number	Special Condition	Applicability Notes
9.F	<p>Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.</p> <p>A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph.</p> <p>An approved gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.</p> <p>A directed maintenance program shall consist of the repair and maintenance of components assisted simultaneously by the use of an approved gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being maintained. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. Replaced components shall be re-monitored within 15 days of being placed back into VOC service.</p>	Projects involving the 28MID LDAR program

Special Condition Number	Special Condition	Applicability Notes
9.G	<p>All new and replacement pumps, compressors, and agitators shall be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. These seal systems need not be monitored and may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.</p> <p>All other pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly.</p>	Projects involving the 28MID LDAR program
9.H	<p>Damaged or leaking valves, connectors, compressor seals, pump seals, and agitator seals found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.</p>	Projects involving the 28MID LDAR program

Special Condition Number	Special Condition	Applicability Notes
9.I	<p>In lieu of the monitoring frequency specified in paragraph F, valves in gas and light liquid service may be monitored on a semiannual basis if the percent of valves leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.</p> <p>Valves in gas and light liquid service may be monitored on an annual basis if the percent of valves leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.</p> <p>If the percent of valves leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.</p>	Projects involving the 28MID LDAR program
9.J	<p>The percent of valves leaking used in paragraph I shall be determined using the following formula:  <math display="block">(V_I + V_S) \times 100 / V_T = V_P</math>           Where:            V<sub>I</sub> = the number of valves found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.            V<sub>S</sub> = the number of valves for which repair has been delayed and are listed on the facility shutdown log.            V<sub>T</sub> = the total number of valves in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe-to monitor valves.            V<sub>P</sub> = the percentage of leaking valves for the monitoring period.</p>	Projects involving the 28MID LDAR program
9.K	<p>Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.</p>	Projects involving the 28MID LDAR program
9.L	<p>Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard, or an applicable National Emission Standard for Hazardous Air Pollutants and does not constitute approval of alternative standards for these regulations.</p>	Projects involving the 28MID LDAR program
10.	<p>Piping, Valves, Connectors, Pumps, Agitators, and Compressors - Intensive Directed Maintenance – 28LAER</p> <p>Except as may be provided for in the Special Conditions of this permit, the following requirements apply to the above-referenced equipment:</p>	Projects involving the 28LAER LDAR program

Special Condition Number	Special Condition	Applicability Notes
10.A	<p>The requirements of paragraphs F and G shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.</p> <p>The exempted components may be identified by one or more of the following methods:</p> <ul style="list-style-type: none"> <li>-piping and instrumentation diagram (PID);</li> <li>-a written or electronic database or electronic file;</li> <li>-color coding;</li> <li>-a form of weatherproof identification; or</li> <li>-designation of exempted process unit boundaries.</li> </ul>	Projects involving the 28LAER LDAR program
10.B	Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.	Projects involving the 28LAER LDAR program
10.C	New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.	Projects involving the 28LAER LDAR program
10.D	<p>To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in paragraph A above. If an unsafe to monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times. A difficult to monitor component for which quarterly monitoring is specified may instead be monitored annually.</p>	Projects involving the 28LAER LDAR program

Special Condition Number	Special Condition	Applicability Notes
10.E	<p>New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance.</p> <p>Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through. In addition, all connectors shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program in accordance with items F thru J of this special condition.</p> <p>In lieu of the monitoring frequency specified above, connectors may be monitored on a semiannual basis if the percent of connectors leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.</p> <p>Connectors may be monitored on an annual basis if the percent of connectors leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.</p> <p>If the percent of connectors leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.</p> <p>The percent of connectors leaking shall be determined using the following formula:  <math display="block">(C_l + C_s) \times 100 / C_t = C_p</math> Where:  C<sub>l</sub> = the number of connectors found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.  C<sub>s</sub> = the number of connectors for which repair has been delayed and are listed on the facility shutdown log.  C<sub>t</sub> = the total number of connectors in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including non-accessible and unsafe to monitor connectors.  C<sub>p</sub> = the percentage of leaking connectors for the monitoring period.</p> <p>Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open-ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;</p>	Projects involving the 28LAER LDAR program

Special Condition Number	Special Condition	Applicability Notes
10.E(1)	a cap, blind flange, plug, or second valve must be installed on the line or valve; or	Projects involving the 28LAER LDAR program
10.E(2)	The open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once by the end of the 72 hours period following the creation of the open-ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.	Projects involving the 28LAER LDAR program



Special Condition Number	Special Condition	Applicability Notes
10.F	<p>Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program. Non accessible valves shall be monitored by leak-checking for fugitive emissions at least annually using an approved gas analyzer with a directed maintenance program. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown. A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph.</p> <p>The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, than the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.</p> <p>A directed maintenance program shall consist of the repair and maintenance of components assisted simultaneously by the use of an approved gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being maintained. Replaced components shall be re-monitored within 15 days of being placed back into VOC service.</p>	Projects involving the 28LAER LDAR program

Special Condition Number	Special Condition	Applicability Notes
10.G	<p>All new and replacement pumps, compressors, and agitators shall be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. These seal systems need not be monitored and may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.</p> <p>All other pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly.</p>	Projects involving the 28LAER LDAR program
10.H	<p>Damaged or leaking valves, connectors, compressor seals, pump seals, and agitator seals found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.</p>	Projects involving the 28LAER LDAR program

Special Condition Number	Special Condition	Applicability Notes
10.I	Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates, times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.	Projects involving the 28LAER LDAR program
10.J	Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.	Projects involving the 28LAER LDAR program
10.K	<p>In lieu of the monitoring frequency specified in paragraph F, valves in gas and light liquid service may be monitored on a semiannual basis if the percent of valves leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.</p> <p>Valves in gas and light liquid service may be monitored on an annual basis if the percent of valves leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.</p> <p>If the percent of valves leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.</p>	Projects involving the 28LAER LDAR program
10.L	<p>The percent of valves leaking used in paragraph K shall be determined using the following formula:  <math display="block">(V_l + V_s) \times 100/V_t = V_p</math>           Where:            V<sub>l</sub> = the number of valves found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.            V<sub>s</sub> = the number of valves for which repair has been delayed and are listed on the facility shutdown log.            V<sub>t</sub> = the total number of valves in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe to monitor valves.            V<sub>p</sub> = the percentage of leaking valves for the monitoring period.</p>	Projects involving the 28LAER LDAR program
10.M	Any component found to be leaking by physical inspection (i.e., sight, sound, or smell) shall be repaired or monitored with an approved gas analyzer within 15 days to determine whether the component is leaking in excess of 500 ppmv of VOC. If the component is found to be leaking in excess of 500 ppmv of VOC, it shall be subject to the repair and replacement requirements contained in this special condition.	Projects involving the 28LAER LDAR program

Special Condition Number	Special Condition	Applicability Notes
11.	Piping, Valves, Connectors, Pumps, and Compressors in contact with [chemical species monitored via this LDAR program] – 28AVO  Except as may be provided for in the Special Conditions of this permit, the following requirements apply to the above-referenced equipment:	Projects involving the 28AVO LDAR program
11.A	Audio, olfactory, and visual checks for leaks within the operating area shall be made every four hours.	Projects involving the 28AVO LDAR program
11.B	Immediately, but no later than one hour upon detection of a leak, plant personnel shall take at least one of the following actions:	Projects involving the 28AVO LDAR program
11.B(1)	Isolate the leak.	Projects involving the 28AVO LDAR program
11.B(2)	Commence repair or replacement of the leaking component.	Projects involving the 28AVO LDAR program
11.B(3)	Use a leak collection/containment system to prevent the leak until repair or replacement can be made if immediate repair is not possible.	Projects involving the 28AVO LDAR program
11.C	Date and time of each inspection shall be noted in the operator's log or equivalent. Records shall be maintained at the plant site of all repairs and replacements made due to leaks. These records shall be made available to representatives of the Texas Commission on Environmental Quality (TCEQ) upon request.	Projects involving the 28AVO LDAR program

Storage Tanks Operational Specifications

Special Condition Number	Special Condition	Applicability Notes
12.	Tanks are approved to store the liquids listed in the RAP- Marine Loading application. Storage tank throughput and service shall be limited to the following:  [Table listing maximum fill/withdrawal rate and rolling 12-month throughput organized by FIN and product.]	Projects involving tanks
13.	The true vapor pressure of any liquid stored at this facility in an uncontrolled atmospheric fixed roof tank shall not exceed 11.0 psia. Floating roof storage tanks shall not store any liquid with a true vapor pressure greater than or equal to 11.0 psia.	Projects involving uncontrolled tanks
14.	For tanks in which liquid is pumped in and out at the same time (FINs: [FINs]), tank liquid height shall be monitored continuously. A record of the tanks' liquid height shall be maintained on a rolling 12-month basis.	Projects involving constant-level tanks
15.	For heated tanks (FINs: [FINs]), the permit holder shall maintain the temperature of the liquid less than or equal to the temperature corresponding to the vapor pressure represented in the RAP-Marine Loading application. The tank temperature shall be continuously monitored, and the temperature shall be recorded daily and during tank filling.  The temperature monitor shall be calibrated on an annual basis to meet an accuracy specification of $\pm 0.75$ 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 heated tanks
16.	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
16.A	The tank emissions must be controlled as specified in one of the paragraphs below:	Projects involving floating roof tanks

Special Condition Number	Special Condition	Applicability Notes
16.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 floating roof tanks
16.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 weather shield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor tight.	Projects involving floating roof tanks
16.A(3)	All vents from the tanks listed below shall be routed to the specified control device.  List of controlled tank FINs and corresponding control device FINs]	Projects involving controlled tanks
16.B	For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and any seal gap measurements specified in Title 40 Code of Federal Regulations § 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 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 floating roof tanks
16.C	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 floating roof tanks
16.D	The tanks shall be designed to completely drain its entire contents to a sump in a manner that leaves no more than 9 gallons of free-standing liquid in the tank or the sump.	Projects involving new tanks
16.E	Tanks shall be constructed or equipped with a connection to a vapor recovery system that routes vapors from the vapor space under the landed roof to a control device.	Projects involving new tanks
16.F	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

Special Condition Number	Special Condition	Applicability Notes
16.G	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
17.	The dissolved hydrogen sulfide in any crude product shall not exceed [value] ppmw in any sample.	Projects involving crude products
17.A	In order to demonstrate compliance with this special condition, the permit holder shall determine the dissolved hydrogen sulfide concentration of each crude product stock to be stored in the storage tanks identified above. The hydrogen sulfide concentration may be determined using method ASTM UOP163-10 or ASTM D7621-16. Any additional method of sampling method and analysis used must be approved by the TCEQ. Records of sampling results shall be kept for a period of five years.	Projects involving crude products
17.B	The frequency of sampling shall be monthly.	Projects involving crude products
17.C	Records of H <sub>2</sub> S concentrations measured to meet the requirements of this condition shall be maintained at the plant site.	Projects involving crude products

Convenience Roof Landings for Storage Tanks (Routine Emissions)

Special Condition Number	Special Condition	Applicability Notes
18.	This permit authorizes emissions from control devices (FINs: [FINs]) for floating roof storage tanks (FINs: [FINs]) during planned floating roof landings not associated with maintenance, startup, and shutdown. Tank roof landings include all operations when the tank floating roof is on its supporting legs. These emissions are subject to the maximum allowable emission rates indicated in the MAERT. The following requirements apply to tank roof landings.	Projects involving convenience roof landings
18.A	At all times that the roof is resting on its leg supports, the tank emissions shall be controlled by a closed vent system and control device meeting the following specifications:	Projects involving convenience roof landings
18.A(1)	The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in 40 CFR Part 60, Subpart VV, § 60.485(b).	Projects involving convenience roof landings
18.A(2)	The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space under the floating roof when the vapor space is directed to the control device. The vapor recovery system collection rate shall be no less than 100 cubic feet per minute when the tank is idle or the tank is being drained, and two times the fill rate when the tank is being refilled.	Projects involving convenience roof landings
18.A(3)	The control device shall be operated as required by this permit. If controlling through a fixed roof vent, route to control during the entire tank refill.  The roof shall be landed on its lowest legs.	Projects involving convenience roof landings
18.B	The occurrence of each roof landing and the associated emissions shall be recorded, and the rolling 12-month tank roof landing emissions shall be updated on a monthly basis. These records shall include at least the following information (as applicable):	Projects involving convenience roof landings
18.B(1)	The identification of the tank and emission point number, and any control devices or controlled recovery systems used to reduce emissions;	Projects involving convenience roof landings
18.B(2)	The reason for the tank roof landing;	Projects involving convenience roof landings



Special Condition Number	Special Condition	Applicability Notes
18.B(3)	For the purpose of estimating emissions, the date, time, and other information specified for each of the following events:	Projects involving convenience roof landings
18.B(3)(a)	The roof was initially landed;	Projects involving convenience roof landings
18.B(3)(b)	All liquid was pumped from the tank to the extent practicable;	Projects involving convenience roof landings
18.B(3)(c)	Refilling commenced, liquid filling the tank, and the volume necessary to float the roof; and	Projects involving convenience roof landings
18.B(3)(d)	Tank roof off supporting legs, floating on liquid.	Projects involving convenience roof landings
18.B(4)	The estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions associated with roof landing activities shall be calculated using the methods described in Section 7.1.3.3 of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7—Storage of Organic Liquids" dated November 2019 (or later edition) and the permit application.	Projects involving convenience roof landings

Loading Operational Specifications (FINs: [FINs])

Special Condition Number	Special Condition	Applicability Notes
19.	All loading operations are limited to the liquids, rates, and throughputs identified in the RAP- Marine Loading application. All loading shall be submerged and rolling 12-month rack throughput records shall be updated on a monthly basis for each product loaded.	Projects involving loading
20.	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
21.	Loading of materials with a vapor pressure of equal or greater than 0.5 pounds per inch square atmosphere (psia) shall be vented to control.	Projects involving loading
22.	The permit holder shall not allow a gasoline 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 Part 60, Subpart XX.	Projects involving truck loading with a collection efficiency of 98.7%
23.	The permit holder shall not allow a gasoline 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 Part 63, Subpart R.	Projects involving truck loading with a collection efficiency of 99.2%
24.	Tank trucks shall be tested or inspected and certified within the past 12 months in accordance with U.S. Department of Transportation (DOT) pressure test requirements of 49 CFR §180.407. The permit holder shall not allow a tank truck to be filled unless it has passed a pressure test within the past year as evidenced by a certificate or markings which shows the date the tank truck last passed the pressure test required by this condition and the identification number of the tank truck.	Projects involving truck loading with a collection efficiency of 100%
25.	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 truck loading with a collection efficiency of 100%
26.	In order to ensure 100-percent capture efficiency of VOC during railcar loading, the following requirements must be met:	Projects involving railcar loading

Special Condition Number	Special Condition	Applicability Notes
26.A	Each railcar to be loaded shall be pressure certified by Department of Transportation (DOT) Class DOT-111AW or Class DOT-115AW testing or equivalent within the past 12 months prior to loading. The holder of this permit shall not allow a railcar to be loaded unless it has provided a certificate which shows the date the railcar last passed the leak-tight test required by this condition and the identification number of the railcar. Records of the date on which the testing was performed, and the test method used shall be maintained for each railcar loaded.	Projects involving railcar loading
26.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
26.C	Each railcar to be loaded shall be designed to handle a pressure of 15 psi gauge or greater.	Projects involving railcar loading
26.D	Each railcar to be loaded shall not be equipped with a spew gauge.	Projects involving railcar loading
27.	The loading of liquids into containers (or drums) shall be submerged. 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 meeting the design, capture velocity, and other operational specifications outlined in Industrial Ventilation: A Manual of Recommended Practice for Design (American Conference of Governmental Industrial Hygienists). Collected vapor shall be routed to the [control device]. A copy of the enclosure design, minimum capture velocity calculations, and vacuum blower capacity shall be kept on site and attached to this permit.	Projects involving railcar loading
28.	A blower system shall be installed to produce a vacuum in the non-inerted marine vessel during all loading operations. A pressure/vacuum gauge shall be installed on the suction side of the loading rack blower system adjacent to the vessel 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 non-inerted marine loading
29.	Before loading a marine vessel with a VOC which has a vapor pressure equal to or greater than 0.5 pounds per square inch absolute (psia) at 95°F or the loading temperature, whichever is higher, the owner or operator of the marine terminal shall verify that the marine vessel has passed an annual vapor tightness test as specified in 40 CFR §63.565(c) (September 19, 1995) or 40 CFR §61.304(f) (October 17, 2000) within the previous twelve months.	Projects involving marine loading

Special Condition Number	Special Condition	Applicability Notes
30.	The following additional requirements apply to loading of a VOC which has a vapor pressure equal to or greater than 0.5 pounds per square inch absolute (psia) under actual storage conditions onto inerted marine vessels (ships).	Projects involving inerted marine loading
30.A	Before loading, the owner or operator of the marine terminal shall verify that the marine vessel has passed an annual vapor tightness test as specified in 40 CFR §63.565(c) (September 19, 1995, amended February 27, 2014) or 40 CFR §61.304(f) (October 17, 2000) within the previous twelve months, and received a recent, completed Standard Tanker Chartering Questionnaire form (Q88) or equivalent.	Projects involving inerted marine loading
30.B	The pressure at the vapor collection connection of an inerted marine vessel must be maintained such that the pressure in a vessels' cargo tanks does not go below 0.2 pounds per square inch gauge (psig) or exceed 80% of the lowest setting of any of the vessel's pressure relief valves. The lowest vessel cargo tank or vent header pressure relief valve setting for the vessel being loaded shall be recorded. Pressure shall be continuously monitored while the vessel is being loaded. Pressure shall be recorded at least once every 15 minutes.	Projects involving inerted marine loading
30.C	VOC loading rates shall be recorded during loading. The loading rate must not exceed the maximum permitted loading rate.	Projects involving inerted marine loading
30.D	During loading, the owner or operator of the marine terminal or of the marine vessel shall conduct audio, olfactory, and visual checks for leaks within the first hour of loading and at least once every 8 hours thereafter for onshore equipment and on board the ship.	Projects involving inerted marine loading
30.D(1)	If a liquid leak is detected during loading and cannot be repaired immediately (for example, by tightening a bolt or packing gland), then the loading operation shall cease until the leak is repaired.	Projects involving inerted marine loading
30.D(2)	If a vapor leak is detected by sight, sound, smell, or hydrocarbon gas analyzer during the loading operation, then a "first attempt" shall be made to repair the leak. Loading operations need not be ceased if the first attempt to repair the leak is not successful provided that the first attempt effort is documented by the owner or operator of the marine vessel and a copy of the repair log is made available to a representative of the marine terminal.	Projects involving inerted marine loading
30.D(3)	If the attempt to repair the leak is not successful and loading continues, emissions from the loading operation for that ship shall be calculated assuming a collection efficiency of 99%.	Projects involving inerted marine loading

Special Condition Number	Special Condition	Applicability Notes
30.E	Date and time of each inspection shall be noted in the operator's log or equivalent. Records shall be maintained at the plant site of all repairs and replacements made due to leaks. These records shall be made available to representatives of the Texas Commission on Environmental Quality (TCEQ) upon request.	Projects involving inerted marine loading
31.	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: 11.5 psia - November-December: 13.5 psia	Projects involving gasoline
32.	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.	Projects involving gasoline
33.	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 from the delivering refinery are acceptable in place of on-site analysis.	Projects involving gasoline that contains benzene
34.	The methyl tert-butyl ether (MTBE) 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 MTBE 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 MTBE content for all grades of gasoline. Gasoline analyses (laboratory certificates of analysis) from the delivering refinery are acceptable in place of on-site analysis.	Projects involving gasoline that contains MTBE
35.	Storage tanks and loading operations at this facility are limited to those shown in Attachment D.	Projects involving storage tanks

Flare Operational Specifications (FIN: [FIN])

Special Condition Number	Special Condition	Applicability Notes
36.	Flares shall be designed and operated in accordance with the following requirements:	Projects involving a permanent flare
36.A	<p>The flare systems shall be designed such that the combined assist ([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 permanent flare
36.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 permanent flare
36.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/air-assist to the flare.]	Projects involving a permanent flare
36.D	<p>The permit holder shall install a continuous flow monitor and [monitoring device] that provide a record of the vent stream flow and composition 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 and composition (or Btu content) shall be recorded each hour.</p> <p>The monitors shall be calibrated or have a calibration check performed on an annual basis to meet the following accuracy specifications: the flow monitor shall be <math>\pm 5.0\%</math>, temperature monitor shall be <math>\pm 2.0\%</math> at absolute temperature, and pressure monitor shall be <math>\pm 5.0</math> mm Hg.</p>	Projects involving a permanent flare

Special Condition Number	Special Condition	Applicability Notes
36.E	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).	Projects involving a permanent flare with a gas analyzer
36.F	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.	Projects involving a permanent flare with a Btu calorimeter
36.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 permanent flare
36.H	Hourly mass emission rates shall be determined and recorded using the above readings and the emission factors used in the permit application.	Projects involving a permanent flare
36.I	Flow of waste gas to the flare shall be limited to the following rates: maximum hourly flow rate shall not exceed [value] scf/hr and total annual flow shall not exceed [value] scf/yr.	Projects involving a permanent flare

Vapor Combustion Unit (VCU) Operational Specifications (FIN: [FIN])

Special Condition Number	Special Condition	Applicability Notes
37.	VCUs shall be designed and operated in accordance with the following requirements:	Projects involving a permanent VCU
37.A	The VCU shall achieve [value] percent control of the waste gas directed to it. This shall be ensured by maintaining the temperature in, or immediately downstream of, the combustion chamber above [value] °F 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 permanent VCU
37.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 permanent VCU
37.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 permanent VCU
37.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 permanent VCU



Special Condition Number	Special Condition	Applicability Notes
38.	<p>The [oxidizer type] shall maintain the VOC concentration in the exhaust gas less than [value] ppmv on a dry basis, corrected to 3 percent oxygen, or achieve a VOC destruction efficiency greater than [value] percent.</p>	<p>Projects involving a permanent vapor oxidizer</p>
39.	<p>The oxidizer firebox temperature shall be maintained at not less than [value]°F and exhaust oxygen concentration not less than 3 percent on a six-minute average while waste gas is being fed into the oxidizer prior to initial stack testing. After the initial stack test has been completed, the six-minute average temperature shall be equal to, or greater than the respective hourly average maintained during the most recent satisfactory stack testing required by the Initial Demonstration of Compliance section of these conditions.</p> <p>The holder of this permit shall continuously monitor and record the temperature of the gas stream before and after the catalyst bed when waste gas is directed to the catalytic oxidizer. The temperature measurement devices shall reduce the temperature readings to an averaging period of six minutes or less and record it at that frequency.</p> <p>The minimum inlet temperature shall be [value] °F when waste gas is being directed to the [oxidizer type]. Retesting may require a change in the minimum inlet temperature value to demonstrate compliance with the VOC destruction efficiency listed in special condition 38.</p>	<p>1<sup>st</sup> paragraph: projects involving a permanent regenerative thermal oxidizer or non-regenerative thermal oxidizer</p> <p>2<sup>nd</sup> and 3<sup>rd</sup> paragraphs: projects involving a permanent catalytic oxidizer</p>
40.	<p>[oxidizer type] shall be continuously monitored and recorded when waste gas is directed to the oxidizer. 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 measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.</p> <p>Quality assured (or valid) data must be generated when the vapor oxidizer 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 vapor oxidizer operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.</p>	<p>Projects involving a permanent vapor oxidizer</p>

Special Condition Number	Special Condition	Applicability Notes
41.	<p>The oxygen analyzer used to satisfy the vapor oxidizer's exhaust oxygen concentration requirements shall continuously monitor and record oxygen concentration when waste gas is directed to the oxidizer. It shall reduce the oxygen readings to an averaging period of 6 minutes or less and record it at that frequency.</p> <p>The oxygen analyzer shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified Performance Specification No. 3, 40 CFR Part 60, Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.</p> <p>The analyzer shall be quality-assured at least semiannually using cylinder gas audits (CGAs) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., two successive semiannual CGAs 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. Necessary corrective action shall be taken for all CGA exceedances of <math>\pm 15</math> percent accuracy and any continuous emissions monitoring system downtime in excess of 5 percent of the incinerator operating time. These occurrences and corrective actions shall be reported to the appropriate TCEQ Regional Director on a quarterly basis. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.</p> <p>Quality assured (or valid) data must be generated when the vapor oxidizer 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 vapor oxidizer 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 permanent vapor oxidizer with CEMS
42.	The exit temperature of the stand-by oxidizer firebox shall be maintained at not less than [value] °F.	Projects involving a permanent vapor oxidizer with a standby firebox

CEMS for Vapor Oxidizer (FIN: [FIN])

Special Condition Number	Special Condition	Applicability Notes
43.	The permit holder shall install, calibrate, and maintain a continuous emission monitoring system (CEMS) to measure and record the exhaust stack concentration of VOC from the vapor oxidizer.	Projects involving a permanent vapor oxidizer with CEMS
43.A	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 involving a permanent vapor oxidizer with CEMS
43.B	Section 1 below applies to sources subject to the quality-assurance requirements of 40 CFR Part 60, Appendix F; section 2 applies to all other sources:	Projects involving a permanent vapor oxidizer with CEMS
43.B(1)	The permit holder shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, Section 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Manager.	Projects involving a permanent vapor oxidizer with CEMS
43.B(2)	<p>The system shall be zeroed and spanned daily, and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.</p> <p>Each monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (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 (RATA) is not required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months.</p> <p>All CGA exceedances of +15 percent accuracy indicate that the CEMS is out of control.</p>	Projects involving a permanent vapor oxidizer with CEMS

Special Condition Number	Special Condition	Applicability Notes
43.C	<p>The monitoring data shall be reduced to 1-hr 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 reduced to units of lb/hr at least once every week as follows:</p> <p>The measured 1-hr average concentration from the CEMS shall be multiplied by the flow rate represented in the permit application or the flow rate measured during the latest stack test performed in accordance with Initial Demonstration of Compliance section of these conditions to determine the hourly emission rate.</p>	Projects involving a permanent vapor oxidizer with CEMS
43.D	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 involving a permanent vapor oxidizer with CEMS
43.E	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 involving a permanent vapor oxidizer with CEMS
43.F	Quality-assured (or valid) data must be generated when the vapor oxidizer 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 vapor oxidizer operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. Options to increase system reliability to an acceptable value, including a redundant CEMS, may be required by the TCEQ Regional Manager.	Projects involving a permanent vapor oxidizer with CEMS

Special Condition Number	Special Condition	Applicability Notes
44.	The following requirements apply to capture systems for the vapor oxidizer.	Projects involving a permanent vapor oxidizer that controls units subject to CAM
44.A	The permit holder shall comply with A(1) or A(2) as follows:	Projects involving a permanent vapor oxidizer that controls units subject to CAM
44.A(1)	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 permanent vapor oxidizer that controls units subject to CAM
44.A(2)	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 permanent vapor oxidizer that controls units subject to CAM
44.B	The vapor oxidizer shall not have a bypass.	Projects involving a permanent vapor oxidizer that controls units subject to CAM without a bypass
44.C	If there is a bypass for the control device, the permit holder shall comply with either C(1) or C(2) as follows:	Projects involving a permanent vapor oxidizer that controls units subject to CAM with a bypass
44.C(1)	Install a flow indicator that records and verifies zero flow at least once every 15 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.	Projects involving a permanent vapor oxidizer that controls units subject to CAM with a bypass
44.C(2)	Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals to prevent flow out the bypass.	Projects involving a permanent vapor oxidizer that controls units subject to CAM with a bypass

Special Condition Number	Special Condition	Applicability Notes
44.D	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 vapor oxidizer when it is required to be in service.	Projects involving a permanent vapor oxidizer that controls units subject to CAM
44.E	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 permanent vapor oxidizer that controls units subject to CAM

Carbon Adsorption System (CAS) Operational Specifications (FIN: [FIN])

Special Condition Number	Special Condition	Applicability Notes
45.	The following FINs shall vent through a CAS consisting of at least two activated carbon canisters that are connected in series: [FINs].	Projects involving non-regenerative CAS without CEMS
45.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 non-regenerative CAS without CEMS
45.B	The VOC sampling and analysis shall be performed using an instrument with a flame ionization detector (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 non-regenerative CAS without CEMS
45.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 $\pm 10$ percent of ppmv 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 non-regenerative CAS without CEMS
45.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 non-regenerative CAS without CEMS
45.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 non-regenerative CAS without CEMS
45.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 24 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 non-regenerative CAS without CEMS
45.D	Records of the CAS monitoring maintained at the plant site shall include (but are not limited to) the following:	Projects involving non-regenerative CAS without CEMS
45.D(1)	Sample time and date.	Projects involving non-regenerative CAS without CEMS

Special Condition Number	Special Condition	Applicability Notes
45.D(2)	Monitoring results (ppmv).	Projects involving non-regenerative CAS without CEMS
45.D(3)	Corrective action taken including the time and date of that action.	Projects involving non-regenerative CAS without CEMS
45.D(4)	Process operations occurring at the time of sampling.	Projects involving non-regenerative CAS without CEMS
45.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 non-regenerative CAS without CEMS
46.	<p>The FINs listed below 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.</p> <p>FINs subject to this condition: [FINs].</p>	Projects involving regenerative CAS
46.A	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 maximum allowable concentration.	Projects involving regenerative CAS



Special Condition Number	Special Condition	Applicability Notes
46.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 Part 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 Part 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>	Projects involving regenerative CAS

Special Condition Number	Special Condition	Applicability Notes
46.C	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 regenerative CAS
46.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 Part 60, Appendix A). Sampling and analysis for VOC concentration shall be performed as follows:	Projects involving regenerative CAS
46.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 $\pm 10$ 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 regenerative CAS
46.D(2)	Sample ports or connections must be designed such that air leakage into the sample port does not occur during sampling.	Projects involving regenerative CAS
46.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 regenerative CAS
46.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 regenerative CAS
46.F	Records of the CAS monitoring maintained at the plant site shall include (but are not limited to) the following:	Projects involving regenerative CAS
46.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 regenerative CAS

Special Condition Number	Special Condition	Applicability Notes
46.F(2)	CEMS daily calibration and quarterly audit results;	Projects involving regenerative CAS
46.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 regenerative CAS
46.F(4)	Results of all periodic monitoring conducted during CEMS downtime or out-of-control periods; and	Projects involving regenerative CAS
46.F(5)	Corrective actions taken (including the time and date of that action).	Projects involving regenerative CAS
46.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 regenerative CAS
46.H	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 regenerative CAS
46.I	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 regenerative CAS
47.	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 CAS
48.	The following FINs shall vent through a CAS consisting of at least two activated carbon canisters that are connected in series: [FINs].	Projects involving non-regenerative CAS with CEMS
48.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 non-regenerative CAS with CEMS
48.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 non-regenerative CAS with CEMS

Special Condition Number	Special Condition	Applicability Notes
48.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 Part 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 Part 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 non-regenerative CAS with CEMS
48.D	<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>	Projects involving non-regenerative CAS with CEMS

Special Condition Number	Special Condition	Applicability Notes
48.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 non-regenerative CAS with CEMS
48.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 non-regenerative CAS with CEMS
48.E(2)	Sample ports or connections must be designed such that air leakage into the sample port does not occur during sampling.	Projects involving non-regenerative CAS with CEMS
48.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 non-regenerative CAS with CEMS
48.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 non-regenerative CAS with CEMS
48.G	Records of the CAS monitoring maintained at the plant site shall include (but are not limited to) the following:	Projects involving non-regenerative CAS with CEMS
48.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 non-regenerative CAS with CEMS
48.G(2)	CEMS daily calibration and quarterly audit results;	Projects involving non-regenerative CAS with CEMS
48.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 non-regenerative CAS with CEMS

<b>Special Condition Number</b>	<b>Special Condition</b>	<b>Applicability Notes</b>
48.G(4)	Results of all periodic monitoring conducted during CEMS downtime or out-of-control periods; and	Projects involving non-regenerative CAS with CEMS
48.G(5)	Corrective actions taken (including the time and date of that action).	Projects involving non-regenerative CAS with CEMS
48.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 non-regenerative CAS with CEMS

Emergency Engines (FINs: [FINs])

Special Condition Number	Special Condition	Applicability Notes
49.	Emissions from the engines shall be limited as listed below. Records of the hours of operation kept on a monthly and rolling 12-month basis shall be maintained by the holder of this permit.	Projects involving emergency engines
49.A	FIN [FIN]: [value] hours of operation per rolling 12-month period.	Projects involving at least one emergency engine
49.B	FIN [FIN]: [value] hours of operation per rolling 12-month period.	Projects involving at least two emergency engines
50.	A non-resettable run time meter shall be installed on each engine.	Projects involving emergency engines
51.	Fuel shall be ultra-low sulfur diesel (ULSD). Sulfur content of fuel for each engine shall not exceed the values identified below.	Projects involving emergency engines
51.A	FIN [FIN]: [value] ppmw.	Projects involving at least one emergency engine
51.B	FIN [FIN]: value] ppmw.	Projects involving at least two emergency engines
52.	MSS emissions from emergency engines shall not exceed the hourly emission rates in the MAERT.	Projects involving emergency engines

Boilers/Heaters (FINs: [FINs])

Special Condition Number	Special Condition	Applicability Notes
53.	The maximum heat input of the boiler(s) and/or heater(s) shall not exceed the following maximum hourly rates:	Projects involving heaters and/or boilers
53.A	FIN [FIN]: [value] MMBtu/hr	Projects involving at least one heater and/or boiler
53.B	FIN [FIN]: [value] MMBtu/hr	Projects involving two heaters and/or boilers
54.	The boiler(s) and/or heater(s) shall be fired with the following fuel(s) meeting the specified requirements below:	Projects involving heaters and/or boilers
54.A	FIN [FIN] shall be fired with [fuel type]. The sulfur content of the fuel shall not exceed [value] ppmw.	Projects involving at least one heater and/or boiler
54.B	FIN [FIN] shall be fired with [fuel type]. The sulfur content of the fuel shall not exceed [value] ppmw.	Projects involving two heaters and/or boilers
54.C	The gas shall be sampled every 6 months to determine total sulfur and net heating value. Test results from the fuel supplier may be used to satisfy this requirement.	Projects involving heaters and/or boilers
54.D	<p>NOx and CO emissions shall not exceed the following:</p> <p>FIN [FIN]: [value] lb NOx/MMBtu on an hourly average and [value] lb/MMBtu CO corrected to 3 percent oxygen on an hourly average.</p> <p>FIN [FIN]: [value] lb NOx/MMBtu on an hourly average and [value] lb/MMBtu CO corrected to 3 percent oxygen on an hourly average.</p>	Projects involving heaters and/or boilers (3 <sup>rd</sup> paragraph only included if two heaters and/or boilers involved)
54.E	The holder of this permit shall install a continuous H2S monitoring system in a portion of the fuel gas system common to the following FINs in accordance with the fuel sulfur monitoring requirements of 40 CFR §60.105: [FINs].	Projects involving at least one heater and/or boiler firing fuel gas



Special Condition Number	Special Condition	Applicability Notes
54.F	<p>The permit holder shall install and operate a totalizing fuel flow meter to measure the gas fuel usage for each boiler or heater. Fuel usage for each shall be recorded monthly. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or at least annually, whichever is more frequent, and shall be accurate to within 5 percent.</p> <p>Quality assured (or valid) data must be generated when the boiler or heater is operating. 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 boiler or heater 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 heaters and/or boilers
54.G	<p>The permit holder shall install and operate a fuel flow meter to measure the gas fuel usage for the following FINs: [FINs]. The monitored data shall be reduced to an hourly average flow rate at least once every day, using a minimum of four equally spaced data points from each one-hour period. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or at least annually, whichever is more frequent, and shall be accurate to within 5 percent.</p> <p>In lieu of monitoring fuel flow, the permit holder may monitor stack exhaust flow using the flow monitoring specifications of 40 CFR Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A.</p>	Projects involving heaters and/or boilers without CEMs
54.H	<p>Quality assured (or valid) data must be generated when the boiler or heater is operating. 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 boiler or heater 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 heaters and/or boilers

Opacity Requirements

Special Condition Number	Special Condition	Applicability Notes
55.	During normal operations, opacity of emissions the FINs listed below shall not exceed 5 percent averaged over a six-minute period. During periods of MSS operation, the units shall not exceed 15 percent averaged over a six-minute period. The period holder shall demonstrate compliance with this special condition with the following procedure: FINs subject to this condition: [FINs].	Projects involving emergency engines, heaters, and/or boilers
55.A	Visible emission observations shall be conducted and recorded at least once during each calendar quarter unless the emission unit is not operating for the entire calendar quarter.	Projects involving emergency engines, heaters, and/or boilers
55.B	These observations shall be made by first observing for visible emissions while each facility is in operation. Observations shall be made at least 15 feet and no more than 0.25 miles from the emission point(s). Up to three emissions points may be read concurrently, provided that all three emissions points are within a 70-degree viewing sector or angle in front of the observer such that the proper sun position (at the observer's back) can be maintained for all three emission points. A certified opacity reader is not required for these visible emission observations.	Projects involving emergency engines, heaters, and/or boilers
55.C	If no visible emissions are present during the observations conducted as specified in this Special Condition, then compliance with the opacity limit will have been demonstrated.	Projects involving emergency engines, heaters, and/or boilers
55.D	If visible emissions are present, the permit holder shall perform one of the following within 24 hours:	Projects involving emergency engines, heaters, and/or boilers
55.D(1)	Assume that an exceedance of the applicable opacity limit specified in this Special Condition has occurred; or	Projects involving emergency engines, heaters, and/or boilers
55.D(2)	Conduct and record an opacity observation as determined by 40 CFR Part 60, Appendix A, Reference Method (RM) 9 to determine if an exceedance of the opacity limit of this Special Condition has occurred.	Projects involving emergency engines, heaters, and/or boilers
55.E	If an exceedance has occurred, the permit holder shall take corrective action within 48 hours.	Projects involving emergency engines, heaters, and/or boilers

Initial Demonstration of Compliance

Special Condition Number	Special Condition	Applicability Notes
56.	<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 following FINs to demonstrate compliance with the RAP Emission Rates Table Attachment and any DRE or outlet concentration: [FINs]. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at their 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> <p>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.</p>	Projects involving a permanent VCU, permanent vapor oxidizer, heaters, and/or boilers
56.A	The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:	Projects involving a permanent VCU, permanent vapor oxidizer, heaters, and/or boilers
56.A(1)	Proposed date for pretest meeting.	Projects involving a permanent VCU, permanent vapor oxidizer, heaters, and/or boilers
56.A(2)	Date sampling will occur.	Projects involving a permanent VCU, permanent vapor oxidizer, heaters, and/or boilers
56.A(3)	Name of firm conducting sampling.	Projects involving a permanent VCU, permanent vapor oxidizer, heaters, and/or boilers

Special Condition Number	Special Condition	Applicability Notes
56.A(4)	Type of sampling equipment to be used.	Projects involving a permanent VCU, permanent vapor oxidizer, heaters, and/or boilers
56.A(5)	Method or procedure to be used in sampling.	Projects involving a permanent VCU, permanent vapor oxidizer, heaters, and/or boilers
56.A(6)	Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.	Projects involving a permanent VCU, permanent vapor oxidizer, heaters, and/or boilers
56.A(7)	Procedure/parameters to be used to determine worst case emissions.	Projects involving a permanent VCU, permanent vapor oxidizer, heaters, and/or boilers
56.B	Air contaminants emitted from the VCU to be tested for include (but are not limited to) NO <sub>x</sub> , VOC, CO, SO <sub>2</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , and O <sub>2</sub> . Air contaminants emitted from the boilers/heaters to be tested for include (but are not limited to) NO <sub>x</sub> and CO.	Projects involving a permanent VCU
56.C	Air contaminants emitted from the vapor oxidizer to be tested for include (but are not limited to) NO <sub>x</sub> , VOC, CO, SO <sub>2</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , and O <sub>2</sub> .	Projects involving a permanent vapor oxidizer
56.D	Air contaminants emitted from the boilers/heaters to be tested for include (but are not limited to) NO <sub>x</sub> and CO.	Projects involving heaters and/or boilers
56.E	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 permanent VCU, permanent vapor oxidizer, heaters, and/or boilers

Special Condition Number	Special Condition	Applicability Notes
56.F	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.	Projects involving a permanent VCU, permanent vapor oxidizer, heaters, and/or boilers
56.G	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: -One copy to the appropriate TCEQ Regional Office. -One copy to each local air pollution control program.	Projects involving a permanent VCU, permanent vapor oxidizer, heaters, and/or boilers
56.H	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 permanent VCU, permanent vapor oxidizer, heaters, and/or boilers
57.	The following requirements apply to capture systems for the following FINs: [FINs].	Projects involving a permanent control device that controls units subject to CAM
57.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 permanent control device that controls units subject to CAM
57.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 permanent control device that controls units subject to CAM
57.C	The following control device(s) identified by FIN shall not have a bypass: [FINs].	Projects involving a permanent control device that controls units subject to CAM without a bypass

Special Condition Number	Special Condition	Applicability Notes
57.D	The following FINs have a bypass: [FINs]. The permit holder shall comply with one of the following requirements:	Projects involving a permanent control device that controls units subject to CAM with a bypass
57.D(1)	Install a flow indicator that records and verifies zero flow at least once every 15 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 permanent control device that controls units subject to CAM with a bypass
57.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 permanent control device that controls units subject to CAM with a bypass
57.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 permanent control device that controls units subject to CAM with a bypass
57.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 permanent control device that controls units subject to CAM

Maintenance, Startup, and Shutdown (MSS)

Special Condition Number	Special Condition	Applicability Notes
58.	<p>This permit authorizes the emissions from the planned maintenance, startup, and shutdown (MSS) activities summarized in the MSS Activity Summary (Attachment C) attached to this permit. This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: [temporary facilities]. Emissions from temporary facilities are authorized provided the temporary facility does not remain on the plant site for more than 12 consecutive months, is used solely to support planned convenience roof landings or planned MSS activities at the permanent site facilities authorized under this permit and does not operate as a replacement for an existing authorized facility.</p> <p>Attachment A identifies the inherently low emitting MSS activities that may be performed at the site. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.</p> <p>Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.</p> <p>The performance of each planned MSS activity not identified in Attachment A or B and the emissions associated with it shall be recorded.</p> <p>All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.</p> <p>The record shall include at least the following information:</p>	<p>1<sup>st</sup> paragraph: projects involving any MSS</p> <p>2<sup>nd</sup> paragraph: projects involving inherently low-emitting maintenance activities</p> <p>3<sup>rd</sup> paragraph: projects involving routine maintenance activities</p> <p>Remaining paragraphs: projects involving any MSS</p>
58.A	the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;	Projects involving MSS
58.B	the type of planned MSS activity and the reason for the planned activity;	Projects involving MSS
58.C	the common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;	Projects involving MSS
58.D	the date and time of the MSS activity and its duration;	Projects involving MSS

Special Condition Number	Special Condition	Applicability Notes
58.E	the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.	Projects involving MSS
59.	Process units and facilities – with the exception of floating and fixed roof storage tanks, temporary vessels used for MSS operations, vacuum and air mover trucks, and vessels identified in Attachment A – shall be depressurized, emptied, degassed, and placed in service in accordance with the following requirements.	Projects involving MSS
59.A	The process equipment shall be depressurized to a control device or a controlled recovery system prior to venting to atmosphere, degassing, or draining liquid. Equipment that only contains material that is liquid with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to atmosphere and drained in accordance with paragraph C of this special condition. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded.	Projects involving MSS
59.B	If mixed phase materials must be removed from process equipment, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. If the VOC partial pressure is greater than 0.50 psi at either the normal process temperature or 95°F, any vents in the system must be routed to a control device or a controlled recovery system. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. Control must remain in place until degassing has been completed, the criteria in Part D.(2) of this condition have been satisfied, or the system is no longer vented to atmosphere.	Projects involving MSS
59.C	All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment to commence degassing and/or maintenance. Liquids must be drained into a closed vessel or closed liquid recovery system unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.	Projects involving MSS



Special Condition Number	Special Condition	Applicability Notes
59.D	<p>If the VOC partial pressure is greater than 0.50 psi at the normal process temperature or 95°F, facilities shall be degassed using good engineering practice to ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. The facilities to be degassed shall not be vented directly to atmosphere, except as necessary to establish isolation of the work area or to monitor VOC concentration following controlled depressurization. The venting shall be minimized to the maximum extent practicable and actions taken recorded. The control device or recovery system utilized shall be recorded with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application. For MSS activities identified in Attachment B, one of the following options shall be used.</p>	Projects involving MSS
59.D(1)	<p>The facilities being prepared for maintenance shall not be vented directly to atmosphere until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.</p>	Projects involving MSS
59.D(2)	<p>The locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the exhaust gases shall be recorded (process flow diagrams [PFDs] or piping and instrumentation diagrams [P&amp;IDs] may be used to demonstrate compliance with the requirement). If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of the next special condition. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. If there is not a connection (such as a sample, vent, or drain valve) available from which a representative sample may be obtained, a sample may be taken upon entry into the system after degassing has been completed. The sample shall be taken from inside the vessel so as to minimize any air or dilution from the entry point. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. Documented site procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.</p>	Projects involving MSS

Special Condition Number	Special Condition	Applicability Notes
60.	Air contaminant concentration shall be measured using an instrument/detector meeting one set of requirements specified below.	Projects involving MSS
60.A	VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR Part 60, Appendix A) with the following exceptions:	Projects involving MSS
60.A(1)	<p>The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor (RF) of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate (RF) shall be recorded. If the RF of the VOC (or mixture of VOCs) to be monitored is greater than 2.0, the VOC concentration shall be determined as follows:</p> <p>VOC Concentration = Concentration as read from the instrument*RF</p> <p>In no case should a calibration gas be used such that the RF of the VOC (or mixture of VOCs) to be monitored is greater than 5.0.</p>	Projects involving MSS
60.A(2)	Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. As an alternative the VOC concentration may be monitored over a five-minute period with an instrument designed to continuously measure concentration and record the highest concentration read. The highest measured VOC concentration shall be recorded and shall not exceed the specified VOC concentration limit prior to uncontrolled venting.	Projects involving MSS
60.B	Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.	Projects involving MSS
60.B(1)	The air contaminant concentration measured as defined in (3) is less than 80 percent of the range of the tube and is at least 20 percent of the maximum range of the tube.	Projects involving MSS
60.B(2)	The tube is used in accordance with the manufacturer's guidelines.	Projects involving MSS
60.B(3)	<p>At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:  measured contaminant concentration (ppmv) &lt; release concentration.</p> <p>Where the release concentration is:</p> <p>10,000*mole fraction of the total air contaminants present that can be detected by the tube.</p> <p>The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.</p>	Projects involving MSS

Special Condition Number	Special Condition	Applicability Notes
60.B(4)	Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.	Projects involving MSS
60.C	Lower explosive limit measured with a lower explosive limit detector.	Projects involving MSS
60.C(1)	The detector shall be calibrated monthly with an appropriate certified gas standard at 25% of the lower explosive limit (LEL) for the appropriate gas. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.	Projects involving MSS
60.C(2)	A functionality test shall be performed on each detector within 24 hours of use with a certified gas standard at 25% of the LEL for the appropriate gas used in (1) above. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.	Projects involving MSS
60.C(3)	A certified methane gas standard equivalent to 25% of the LEL for pentane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for the appropriate gas.	Projects involving MSS
60.C(4)	Definitions	Projects involving MSS
60.C(4)(a)	An appropriate gas is one which when used for calibration of the detector, ensures that the response factor (RF) of the VOC (or mixture of VOCs) to be monitored is less than 1.2.	Projects involving MSS
60.C(4)(b)	The same type of certified gas standard is a standard consisting of the same gas as used for calibration, certified to be 25 percent of the LEL for that gas.	Projects involving MSS
60.C(5)	Lower explosive limit detector may not be used to measure the air contaminant concentration of storage tanks.	Projects involving MSS
61.	This permit authorizes emissions from storage tanks during the following planned MSS activities: floating roof landings for MSS, floating roof storage tank cleaning, and fixed roof storage tank cleaning. Tank roof landings include all operations when the tank floating roof is on its supporting leg. These emissions are subject to the maximum allowable emission rates indicated in the RAP Emission Rates Table Attachment. Only one tank MSS activity shall occur at any given time.	Projects involving storage tanks

Special Condition Number	Special Condition	Applicability Notes
62.	The following requirements apply to MSS floating roof landings.	Projects involving floating roof storage tanks
62.A	Unless storing liquid with a VOC vapor pressure less than 0.50 psia at 95°F, if the tank is to be completely drained, the tank liquid level shall be continuously lowered after the tank floating roof initially lands on its supporting legs until the tank and tank sump have been drained to the maximum extent practicable without entering the tank.	Projects involving floating roof storage tanks
62.B	If the VOC vapor pressure of the liquid being drained from the tank is greater than or equal to 0.50 psia at 95°F, a vapor recovery system shall be connected to the vapor space under the landed tank roof and the vapor space vented to a control device. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space under the floating roof when the vapor space is directed to the control device. The vapor space shall be vented to the control device during the period from the first stoppage of liquid withdrawal after the roof is landed until the tank has been degassed per part E of this condition or the tank has been filled so that the landed roof is floating on liquid.	Projects involving floating roof storage tanks
62.C	The tank roof shall be landed on its lowest legs unless tank entry is planned. If the VOC vapor pressure of the liquid is greater than or equal to 0.50 psia at 95°F, the time the roof is landed shall be restricted to 24 hours unless the tank has been completely drained and degassed.	Projects involving floating roof storage tanks
62.D	During roof landings, if the tank is not degassed per part E of this condition, the date and time the roof is again floating on liquid shall be recorded and parts E through G of this condition do not apply.	Projects involving floating roof storage tanks
62.E	Tanks shall be degassed as follows:	Projects involving floating roof storage tanks
62.E(1)	The vapor space under the floating roof shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.	Projects involving floating roof storage tanks

Special Condition Number	Special Condition	Applicability Notes
62.E(2)	<p>Any gas or vapor removed from the vapor space under the floating roof shall be routed to a control device or controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than or equal to the values specified in the table below. Forced ventilation shall not occur until the residual concentration is less than or equal to the values specified in the table below.</p> <p>[Table listing products stored in floating roof tanks and maximum VOC concentration of the vapor space prior to start of forced ventilation in ppmv.]</p>	Projects involving floating roof storage tanks
62.E(3)	<p>A volume of purge gas equivalent to twice the volume of the vapor space under the floating roof must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled to verify acceptable VOC concentration. The measurement of purge gas volume shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in the Special Condition 60.</p>	Projects involving floating roof storage tanks
62.E(4)	<p>The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.</p>	Projects involving floating roof storage tanks
62.E(5)	<p>Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC partial pressure of the remaining liquid in the tank is less than 0.15 psia.</p>	Projects involving floating roof storage tanks
62.F	<p>Except as allowed below, the tank shall not be opened or ventilated without control until part G of this condition is satisfied.</p> <p>Minimize air circulation in the tank vapor space: One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank. Access points shall be closed when not in use.</p>	Projects involving floating roof storage tanks
62.G	<p>The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.</p>	Projects involving floating roof storage tanks

Special Condition Number	Special Condition	Applicability Notes
62.G(1)	Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.	Projects involving floating roof storage tanks
62.G(2)	If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:	Projects involving floating roof storage tanks
62.G(2)(a)	Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.	Projects involving floating roof storage tanks
62.G(2)(b)	Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).	Projects involving floating roof storage tanks
62.G(2)(c)	Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1000 ppmv through the procedure in Special Condition 60.	Projects involving floating roof storage tanks
62.G(3)	No standing liquid verified through visual inspection.	Projects involving floating roof storage tanks
62.G(4)	The permit holder shall maintain records to document the method used to release the tank.	Projects involving floating roof storage tanks
62.H	Only one tank with a landed floating roof may be filled at any given time. Tanks shall be refilled as rapidly as practicable until the roof is off its legs with the following exception: The vapor space below the tank roof is directed to a control device when the tank is refilled until the roof is floating on the liquid. The control device used, and the method and locations used to connect the control device shall be recorded. All vents from the tank being filled must exit through the control device.	Projects involving floating roof storage tanks
62.I	The occurrence of each roof landing and the associated emissions shall be recorded, and the rolling 12-month tank roof landing emissions shall be updated on a monthly basis. These records shall include at least the following information:	Projects involving floating roof storage tanks
62.I(1)	the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;	Projects involving floating roof storage tanks

Special Condition Number	Special Condition	Applicability Notes
62.1(2)	the reason for the tank roof landing;	Projects involving floating roof storage tanks
62.1(3)	for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:	Projects involving floating roof storage tanks
62.1(3)(a)	the roof was initially landed,	Projects involving floating roof storage tanks
62.1(3)(b)	all liquid was pumped from the tank to the extent practical,	Projects involving floating roof storage tanks
62.1(3)(c)	start and completion of controlled degassing, and total volumetric flow,	Projects involving floating roof storage tanks
62.1(3)(d)	all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,	Projects involving floating roof storage tanks
62.1(3)(e)	if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,	Projects involving floating roof storage tanks
62.1(3)(f)	refilling commenced, liquid filling the tank, and the volume necessary to float the roof; and	Projects involving floating roof storage tanks
62.1(3)(g)	tank roof off supporting legs, floating on liquid;	Projects involving floating roof storage tanks
62.1(4)	the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events c and g with the data and methods used to determine it. The emissions associated with roof landing and cleaning activities shall be calculated using the methods described in Section 7.1.3.3 and 7.1.3.4 of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids" dated November 2019 and the permit application.	Projects involving floating roof storage tanks
63.	Fixed roof storage tanks are subject to the following requirements.	Projects involving fixed roof storage tanks
63.A	Ventilation of the vapor space shall be controlled. Tanks shall be degassed as follows.	Projects involving fixed roof storage tanks

Special Condition Number	Special Condition	Applicability Notes
63.A(1)	The vapor space under the roof shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.	Projects involving fixed roof storage tanks
63.A(2)	Any gas or vapor removed from the vapor space under the roof shall be routed to a control device or controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than or equal to the values specified in the table below. Forced ventilation shall not occur until the residual concentration is less than or equal to the values specified in the table below.  [Table listing products stored in fixed roof tanks and maximum VOC concentration of the vapor space prior to start of forced ventilation in ppmv.]	Projects involving fixed roof storage tanks
63.A(3)	A volume of purge gas equivalent to twice the volume of the vapor space under the roof must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled to verify acceptable VOC concentration. The measurement of purge gas volume shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in the previous special condition.	Projects involving fixed roof storage tanks
63.A(4)	The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.	Projects involving fixed roof storage tanks
63.B	Except as allowed below, the tank shall not be opened or ventilated without control until part G of this condition is satisfied.  Minimize air circulation in the tank vapor space: One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank. Access points shall be closed when not in use.	Projects involving fixed roof storage tanks
63.C	The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.	Projects involving fixed roof storage tanks



Special Condition Number	Special Condition	Applicability Notes
63.C(1)	Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.	Projects involving fixed roof storage tanks
63.C(2)	If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:	Projects involving fixed roof storage tanks
63.C(2)(a)	Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.	Projects involving fixed roof storage tanks
63.C(2)(b)	Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).	Projects involving fixed roof storage tanks
63.C(2)(c)	Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1000 ppmv through the procedure in Special Condition 60.	Projects involving fixed roof storage tanks
63.C(3)	The permit holder shall maintain records to document the method used to release the tank.	Projects involving fixed roof storage tanks
64.	The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site:	Projects involving MSS
64.A	Prior to initial use, identify any liquid in the truck. Record the liquid level and document the VOC partial pressure. After each liquid transfer, identify the liquid, the volume transferred, and its VOC partial pressure.	Projects involving MSS
64.B	If vacuum pumps or blowers are operated when liquid is in or being transferred to the truck, the following requirements apply:	Projects involving MSS
64.B(1)	The vacuum/blower exhaust shall be routed to a control device or a controlled recovery system.	Projects involving MSS
64.B(2)	Equip fill line intake with a "duckbill" or equivalent attachment if the hose end cannot be submerged in the liquid being collected.	Projects involving MSS

Special Condition Number	Special Condition	Applicability Notes
64.B(3)	A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.	Projects involving MSS
64.B(3)(a)	For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a "duckbill" or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.	Projects involving MSS
64.B(3)(b)	If the vacuum truck exhaust is controlled with a control device other than an engine or oxidizer, VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer shall be recorded, measured using an instrument meeting the requirements of Special Condition No 56.	Projects involving MSS
64.C	Record the volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.	Projects involving MSS
64.D	The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12-month vacuum truck emissions shall also be determined on a monthly basis.	Projects involving MSS
64.E	If the VOC partial pressure of all the liquids vacuumed into the truck is less than 0.10 psi, this shall be recorded when the truck is unloaded or leaves the plant site and the emissions may be estimated as the maximum potential to emit for a truck in that service as documented in the permit application. The recordkeeping requirements in parts A through D do not apply.	Projects involving MSS
65.	Additional occurrences of MSS activities authorized by this permit may be authorized under permit by rule only if conducted in compliance with this permit's procedures, emission controls, monitoring, and recordkeeping requirements applicable to the activity.	Projects involving MSS

Special Condition Number	Special Condition	Applicability Notes
66.	<p>Control devices required by this permit for emissions from planned MSS activities are limited to the permanent control devices (FINs: [FINs]) and those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device. Controlled recovery systems identified in this permit shall be directed to an operating process or to a collection system that is vented through a control device meeting the requirements of this permit condition.</p> <p>Control devices required by this permit for emissions from convenience roof landings are limited to the permanent control devices (FINs: [FINs]) and those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device. Controlled recovery systems identified in this permit shall be directed to an operating process or to a collection system that is vented through a control device meeting the requirements of this permit condition.</p>	<p>1<sup>st</sup> paragraph: projects involving storage tank MSS</p> <p>2<sup>nd</sup> paragraph: projects involving convenience roof landings but not involving MSS</p>
66.A	The Plant Flare System (FIN: [FIN]) or Temporary Flare (FIN: [FIN])	Projects involving temporary flare
66.A(1)	The heating value and velocity requirements in 40 CFR 60.18 shall be satisfied during operations authorized by this permit.	Projects involving temporary flare
66.A(2)	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 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 at a frequency in accordance with, the manufacturer's specifications.	Projects involving temporary flare
66.A(3)	The plant flare system and any temporary flare shall meet all flow monitoring requirements for waste gas and assist gas as specified in the Flare Operational Specifications section of these conditions when used for control of MSS activities.	Projects involving temporary flare
66.B	Temporary Thermal Oxidizer (FIN: [FIN])	Projects involving temporary thermal oxidizer
66.B(1)	The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.	Projects involving temporary thermal oxidizer

Special Condition Number	Special Condition	Applicability Notes
66.B(2)	<p>The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency.</p> <p>The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of <math>\pm 0.75</math> percent of the temperature being measured expressed in degrees Celsius or <math>\pm 2.5^{\circ}\text{C}</math>.</p>	Projects involving temporary thermal oxidizer
66.C	Temporary vapor combustion unit (VCU) (FIN: [FIN])	Projects involving temporary VCU
66.C(1)	Convenience landings, pigging operations containing VOC, high volume minor MSS activities, and floating roof MSS activities shall be routed to the temporary VCU.	Projects involving temporary VCU
66.C(2)	The temporary VCU shall achieve percent control of the VOC in the waste gas directed to them. This shall be ensured by maintaining the temperature in, or immediately downstream of, the combustion chamber above $1400^{\circ}\text{F}$ , except during periods of startup or shutdown.	Projects involving temporary VCU
66.C(3)	Fuel for the temporary VCU shall be natural gas.	Projects involving temporary VCU
66.C(4)	Maximum firing capacity of the temporary VCU shall not exceed [value] MMBtu/hr.	Projects involving temporary VCU
66.C(5)	In order to demonstrate compliance with the maximum volumetric flow rate to the temporary VCU and the maximum VCU firing rate, the permit holder shall record the following during periods of VCU operation:	Projects involving temporary VCU
66.C(5)(a)	Date and start time of tank roof landings prior to degassing and forced ventilation.	Projects involving temporary VCU
66.C(5)(b)	Date, start time and end time of refilling the floating roof tanks after MSS or convenience landings, condition prior to refilling (clean/dirty) to determine saturation factor, tank refilling rate, material being placed in the tank, and material vapor pressure.	Projects involving temporary VCU
66.C(5)(c)	Date, start time and end time of controlled degassing and forced ventilation, the tanks involved, the blower volumetric rate, material in the tank prior to degassing or forced ventilation, and vapor pressure of that material.	Projects involving temporary VCU

Special Condition Number	Special Condition	Applicability Notes
66.C(5)(d)	Date, start time and end time of the pigging operations and high volume MSS activities, volume of piping, material in the pipe, and the vapor pressure and vapor molecular weight of that material.	Projects involving temporary VCU
67.	Records demonstrating compliance with the RAP Emission Rates Table Attachment and all other records required by the conditions of this permit are to be maintained electronically or in hard copy format for at least five years at the site and made available to representatives of the TCEQ or any local air pollution control program having jurisdiction.	All projects

Attachment A – Inherently Low-Emitting MSS Activities

Applicability note: Projects involving inherently low-emitting MSS activities (as defined in the RAP)

Activity	Pollutants emitted
Management of sludge from pits, ponds, sumps, and water conveyances	VOC
Aerosol Cans	VOC, PM
Calibration of analytical equipment	VOC, NOx, CO, H2S, SO2
Carbon can replacement	VOC
Catalyst charging/handling	PM
Instrumentation/analyzer maintenance	VOC
Meter proving	VOC
Replacement of analyzer filters and screens	VOC
Maintenance on water treatment systems (cooling, boiler, potable)	VOC
Soap and other aqueous based cleaners	VOC
Cleaning sight glasses	VOC

Attachment B – Routine Maintenance Activities

Applicability note: Projects involving routine maintenance activities (as defined in the RAP)

<b>Activity</b>
Pump repair/replacement
Fugitive component (valve, pipe, flange) repair/replacement
Filter repair/replacement
Valve repair/replacement
Vessel repair/replacement
Meter repair/replacement
Piping repair/replacement

Attachment C – MSS Activity Summary

Applicability note: Projects involving the activities listed

Facility & Activity Description	Control Device(s) and FIN(s)
Floating roof storage tank MSS-related roof landings—Standing idle, degassing, post-control degassing, cleaning, and refilling	Filled in from application
Fixed roof storage tank MSS	Filled in from application
Minor MSS Activities including draining, venting and refilling pumps, filters, meters, valves, vessels, and piping.	Filled in from application
Vacuum Trucks and Air Movers— Vapor collection from the process using a vacuum truck or air mover	Filled in from application



Attachment D – Loading Throughput Limits

Applicability note: Projects involving loading

<b>Product name</b>	<b>Maximum hourly throughput (bbl/hr)</b>	<b>Annual throughput (bbl/yr)</b>
Filled in from application	Filled in from application	Filled in from application
Filled in from application	Filled in from application	Filled in from application
Filled in from application	Filled in from application	Filled in from application
Filled in from application	Filled in from application	Filled in from application
Filled in from application	Filled in from application	Filled in from application

Attachment E - Allowable Operating Scenarios for 1-hr, 3-hr, 8-hr, and 24-hr Averaging Periods

Applicability note: All projects

<b>FIN and Activity</b>	<b>Operating Scenario: Routine Operations</b>	<b>Operating Scenario: MSS Operations</b>
Tank1 - routine operations	X	
Tank1 - MSS operations		
Tank2 - routine operations	X	
Tank2 - MSS operations		
Tank3 - routine operations	X	
Tank3 - MSS operations		
Tank4 - routine operations	X	
Tank4 - MSS operations		
Tank5 - routine operations	X	
Tank5 - MSS operations		
Any single tank - MSS operations		X
Any 4 tanks not undergoing MSS - routine operations, excluding convenience landings		X
Drum loading - routine operations	X	
Truck loading - routine operations	X	
Rail loading - routine operations	X	
Barge loading - routine operations	X	
Ship loading - routine operations	X	
Flare - control of routine loading operations	X	
Flare - control of routine tank operations	X	X
Flare - control of MSS operations		X
VCU - control of routine loading operations	X	
VCU - control of routine tank operations	X	X
VCU - control of MSS operations		X
VO - control of routine loading operations	X	
VO - control of routine tank operations	X	X
VO - control of MSS operations		X
CAS - control of routine loading operations	X	
CAS - control of routine tank operations	X	X
Temporary flare - routine operations	X	

Attachment E - Allowable Operating Scenarios for 1-hr, 3-hr, 8-hr, and 24-hr Averaging Periods (*continued*)

Applicability note: All projects

<b>FIN and Activity</b>	<b>Operating Scenario: Routine Operations</b>	<b>Operating Scenario: MSS Operations</b>
Temporary flare - MSS operations		X
Temporary VCU - control of routine operations	X	
Temporary VCU - control of MSS operations		X
Temporary thermal oxidizer - control of routine operations	X	
Temporary thermal oxidizer - MSS operations		X
Engine2 - routine operations	X	
Engine1 - routine operations	X	
HeaterBoiler 1 - routine operations	X	X
HeaterBoiler 2 - routine operations	X	X
Fug - routine and MSS operations	X	X
Inherently Low-Emitting and Routine Maintenance Activities - MSS operations	X	X