

Statement of Basis For Title V Permit

Company Name	Sunoco Inc. (R&M)
Premise Number	07-73-00-0080
What makes this facility a Title V facility?	Potential emissions of greater than 100 tpy of volatile organic compounds(VOCs), nitrogen oxides, and carbon monoxide. Potential emissions of greater than 10 tpy of Aniline, Cumene, Methanol, Methyl Chloride (Chloromethane), Ethyl Benzene, and Phenol
Has each insignificant emissions unit been reviewed to confirm it meets the definition in 3745-77-01 (U)?	Yes
Were there any “common control” issues associated with this facility? If yes, provide a summary of those issues and explain how the DAPC decided to resolve them.	Yes, there are several emission units which have a common control for VOC emissions. A common thermal oxidizer controls emissions from two individual emission units. A common process heater controls emissions from two individual emission units.
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a minor permit modification per OAC rule 3745-77-08(C)(1)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a significant permit modification per OAC rule 3745-77-08(C)(3)	B004, B005, B006, B010 - PTI # 07-00543: establishing synthetic minor limitations for B004, B005, B006 and B010 to avoid PSD review; physical modification to B006 triggering NSPS Db applicability ;
Please identify the affected unit(s)and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a reopening per OAC rule 3745-77-08(D)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document resulting from a renewal per OAC rule 3745-77-08(E)	N/A

Part II (State and Federally Enforceable Requirements)

Term and Condition (paragraph)	Basis		Comments
	SIP (3745-)	Other	
A.I	3745-31-05(A)(3)		Applicable Emission Limitations and/or Control Requirements Pertaining to Facility-wide Fugitive Equipment Leaks:
A.II	N	40 CFR Part 60, Subpart NNN	Requirements of 40 CFR Part 60, Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.
A.III	N	40 CFR Part 63, Subpart A	Requirements of 40 CFR Part 63, Subpart A - General Provisions
A.IV	N	40 CFR Part 61 Subpart FF	[40CFR 61.355(a)(5)] The total annual benzene quantity from facility waste is less than 1 Mg/yr. The permittee shall: (1) comply with the record keeping requirements of 40 CFR 61.356 and the reporting requirements of 40 CFR 61.357; and (2) repeat the determination of total annual benzene quantity from facility waste whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr or more.
A.V	N	40 CFR Part 68	The permittee shall submit a Risk Management Plan and comply with all appropriate subparts by no later than June 20, 1999.
A.VI	N	40 CFR Part 63, Subpart EEE	The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Hazardous Waste Combustion , 40 CFR Part 63, Subpart EEE, upon promulgation of the revised standards.

A.VII	N	40 CFR Part 63, Subparts F, G, H, DDDDD, and GGGGG	<p>The permittee is subject to the applicable emission limitation(s) and/or control measures, operational restrictions, monitoring and/or record keeping requirements, reporting requirements, testing requirements and the general and/or other requirements specified in 40 CFR Part 63, Subparts F, G, H, DDDDD, and GGGGG in accordance with 40 CFR Part 63, Subparts F, G, H, DDDDD, and GGGGG (including the Table(s) and Appendix(ices) referenced in Subparts F, G, H, DDDDD, and GGGGG which are included in the text of Attachments 1 through 4 hereto, and are hereby incorporated into this permit as if fully written.</p> <p>Ordinarily, these requirements would be incorporated into Part III of this permit; however, incorporating Subparts F, G, H, DDDDD, and GGGGG into Part III of this permit was not practical due to technical incompatibilities and the limitations of the STARS program. In addition, numerous difficulties were encountered in attempting to copy and paste the Subpart's tables and/or equations into STARS format.</p>
A.VIII	N	40 CFR Part 77	Insignificant emissions units located at this facility.

C Instructions for Part II:

Each paragraph in Part II must be identified and the remainder of the table completed. If the SIP (not including 31-05) is the basis for the term and condition, identify the specific rule. If the SIP is not the basis for the term and condition, place an “N” in the column under “SIP.” If the basis for the term and condition is something other than the SIP, including 3745-31-05, NSPS or MACT, a “Y” should be noted in the “Other” column, and if not, an “N” should be noted. Whether the basis for the term and condition is the “SIP” or “Other,” an explanation of each term and condition in Part II must be provided in the “Comments” section.

Part III (Requirements Within the State & Federally Enforceable Section)

Any unusual requirements or aspects of the terms and conditions in Part III that are not self-explanatory should be explained in the appropriate comment field or in a paragraph following the table for Part III.

	<p>Particulate emissions shall not exceed 0.020 pound per mmBtu of actual heat input when burning only natural gas and/or #2 fuel oil.</p>	<p>OAC rule 3745-17-10(B)(1)</p>	<p>N</p>															
	<p>Particulate emissions shall not exceed 0.11 pound per mmBtu of actual heat input when burning #6 fuel oil and/or by-product fuel or when burning #6 fuel oil and/or by-product fuel in combination with natural gas and/or #2 fuel oil. This limit was calculated from curve P-1 of Figure I.</p>	<p>OAC rule 3745-17-10(C)(1)</p>	<p>N</p>															
	<p>Sulfur dioxide emissions shall not exceed 0.6 pound per mmBtu of actual heat input.</p>	<p>OAC rule 3745-18-79(B)(2)</p>	<p>N</p>															

B006	<p>1.0 lb/hr VOC</p> <p>4.2 tpy VOC</p> <p>11.07 lb/hr SO2</p> <p>Sulfur dioxide emissions shall not exceed 0.6 pound per mmBtu of actual heat input.</p> <p>63.4 lb.hr NOx</p> <p>14.28 lb/hr CO</p> <p>11.35 lb/hr PM</p> <p>9.79 lb/hr PM10</p> <p>0.002 lb/hr lead</p> <p>40.94 tpy PM10 *</p> <p>59.85 tpy SO2 *</p> <p>570.70 tpy NOx *</p> <p>195.72 tpy CO *</p> <p>45.17 tpy VOC *</p> <p>0.50 tpy lead *</p> <p>* as a rolling, 12- month summation from Boilers B004, B005, B006 and B010 combined.</p>	3745-31-05 PTI 07- 00543	40 CF R Par t 60, Sub part Db																<p>OR- the fuel usage in boilers 2001-UA, 2001-UB, 2001-UC, and 2001-UE shall not cause CO emissions to exceed 195.72 tpy, NOx emissions to exceed 570.70 tpy, VOC emissions to exceed 47.17 tpy, SO2 emissions to exceed 59.85 tpy, and PM10 emissions to exceed 40.94 tpy, on a rolling 12-month basis.</p> <p>M - waste fuel analysis of each fuel batch firing scenario;</p> <p>R - monthly records of quantity of each fuel burned, heat content, ash content, sulfur content; monthly records of calculated average particulate and sulfur dioxide emissions for each fuel batch-firing scenario</p> <p>Rp - quarterly deviation reporting of each fuel batch-firing scenario which the average sulfur dioxide emission rate exceeded 0.6 lb/MMBTU, the average particulate emission rate exceeded 0.020 pound per mmBtu when burning natural gas and/or #2 fuel oil or 0.102 pound per mmBtu when burning #6 fuel oil and/or by-product fuel</p> <p>ET - stack test for particulate, sulfur dioxide, nitrogen oxides and carbon monoxide</p> <p>Misc -</p>
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	<p>Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.</p>	<p>OAC rule 3745-17-07(A)</p>	<p>N</p>																
	<p>Particulate emissions shall not exceed 0.020 pound per mmBtu of actual heat input when burning only natural gas and/or #2 fuel oil.</p>	<p>OAC rule 3745-17-10(B)(1)</p>	<p>N</p>																
	<p>Particulate emissions shall not exceed 0.11 pound per mmBtu of actual heat input when burning #6 fuel oil and/or by-product fuel or when burning #6 fuel oil and/or by-product fuel in combination with natural gas and/or #2 fuel oil. This limit was calculated from curve P-1 of Figure I.</p>	<p>OAC rule 3745-17-10(C)(1)</p>	<p>N</p>																

	Sulfur dioxide emissions shall not exceed 1.6 pounds per mmBtu of actual heat input.	OAC rule 3745-18-06													
B010	1.0 lb VOC/hr 4.2 tpy VOC 1.6 lbs SO2/MMBTU 40.94 tpy PM10 * 59.85 tpy SO2 * 570.70 tpy NOx * 195.72 tpy CO * 45.17 tpy VOC * 0.50 tpy lead * * as a rolling, 12-month summation from Boilers B004, B005, B006 and B010 combined.	3745-31-05 PTI 07-00543		N	N	Y	Y	N	Y	Y	Y	Y	N	N	OR - the fuel usage in boilers 2001-UA, 2001-UB, 2001-UC, and 2001-UE shall not cause CO emissions to exceed 195.72 tpy, NOx emissions to exceed 570.70 tpy, VOC emissions to exceed 47.17 tpy, SO2 emissions to exceed 59.85 tpy, and PM10 emissions to exceed 40.94 tpy, on a rolling 12-month basis. M - waste fuel analysis of each fuel batch firing scenario R - monthly records of quantity of each fuel burned, heat content, ash content, sulfur content; monthly records of calculated average particulate and sulfur dioxide emissions for each fuel batch-firing scenario Rp - quarterly deviation reporting of each fuel batch-firing scenario which the average sulfur dioxide emission rate exceeded 0.6 lb/MMBTU, the average particulate emission rate exceeded 0.020 pound per mmBtu when burning natural gas and/or #2 fuel oil or 0.102 pound per mmBtu when burning #6 fuel oil and/or by-product fuel ET - stack test for particulate and sulfur dioxide Misc -

	<p>Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.</p>	<p>OAC rule 3745-17-07(A)</p>																								
	<p>Particulate emissions shall not exceed 0.020 pound per mmBtu of actual heat input when burning only natural gas and/or #2 fuel oil.</p>	<p>OAC rule 3745-17-10(B)(1)</p>																								
	<p>Particulate emissions shall not exceed 0.11 pound per mmBtu of actual heat input when burning #6 fuel oil and/or by-product fuel or when burning #6 fuel oil and/or by-product fuel in combination with natural gas and/or #2 fuel oil. This limit was calculated from curve P-1 of Figure I.</p>	<p>OAC rule 3745-17-10(C)(1)</p>																								

		OAC rule 3745-17-11(B)													
J004	12.94 tpy VOC 303.0 tpy acetone	OAC rule 31-05(A)(3) PTI 07-00451	40 CFR Part 63, Subpart F, G, and H	N	N	N	N	N	Y	N	N	N	N	N	OR- none M,R - For each Group 2 transfer rack, the permittee shall record, update annually, and maintain the information specified in A.2.j.i through A.2.j.iii, as required in [40 CFR 63.130(f)] Rp - none required per 40 CFR Part 63, Subpart G ET - compliance with VOC & acetone limits determined with AP-42 emission factors Misc -
J006	12.94 tpy VOC 303.0 tpy acetone	OAC rule 3745-31-05(A)(3) PTI 07-00451	40 CFR Part 63, Subpart F, G, and H	N	N	N	N	N	Y	N	N	N	N	N	OR- none M, R - For each Group 2 transfer rack, the permittee shall record, update annually, and maintain the information specified in A.2.j.i through A.2.j.iii, as required in [40 CFR 63.130(f)] Rp - none required per 40 CFR Part 63, Subpart G ET - compliance with VOC & acetone limits determined with AP-42 emission factors Misc -

J008	<p>0.53 lb VOC/hr fugitive equipment leaks</p> <p>2.31 tpy VOC from fugitive equipment leaks</p>	<p>OAC rule 3745-31-05(A)(3) PTI 07-00508</p>		N	N	N	N	N	N	N	N	N	N	N	<p>OR- none</p> <p>M, R, Rp - the hourly and annual emissions limits were established to reflect the potential to emit for this emissions unit; therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with this limit.</p> <p>ET - compliance with VOC limits determined using the SOCM average emission factors (EPA-453/R-93-026, Table 2-1, dated 6/93).</p> <p>Misc -</p>
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P001	<p>Group 1 process vent HAP emissions shall be reduced by 98% or to an outlet concentration of 20 ppm vent air oxidation processes vent stream to a combustion device which reduces VOC by 98% or to a concentration less than 20 ppm by volume, dry basis</p>	<p>OAC rule 3745-31-05(A)(3) PTI 07-00500 17-07(A) 17-11(B) 18-06 21-09(DD) 21-09(EE)</p>	<p>40 C F R Part 63, Subparts F, G, and H 40 C F R Part 60, Subparts III and V</p>															<p>OR- route all Group 1 process vents to a thermal oxidizer to comply with the percent reduction requirement or concentration limit ; shall burn only process vent gas and/or natural gas in the thermal oxidizer; minimum firebox temperature of the thermal oxidizer shall be 1,450 degrees Fahrenheit (788 degrees Celsius) as a daily calendar average; each surge control vessel or bottoms receiver tank which meets one of conditions in section A.3.q of Part II, shall be equipped with a closed vent system that routes the organic vapors back to the process or to a control device.</p> <p>M - permittee shall maintain a temperature monitoring device, equipped with a continuous recorder, in the firebox of the thermal oxidizer (2007-L); monitoring of any bypass lines that could divert a vent stream away from the thermal oxidizer; monitor fuel use of than natural gas and/or process vent gas</p> <p>R - records of the daily average value of each continuously monitored parameter for each operating day; hourly records of whether the flow indicator specified was operating and whether flow was detected at any time under the hour, as well as records of the times and durations of all periods when the vent stream is diverted from the control device or the monitor is not operating.; maintain records of process vent group determinations; maintain records for the LDAR program</p> <p>Rp - submit Periodic Reports , semiannually, no later than 60 days after the end of each 6-month period, and reports of startup, shutdown and malfunctions, on the same schedule, as required by HON; submit semiannual reports for the LDAR</p>
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<p>P003</p>	<p>7.82 lbs/hr VOC</p> <p>34.25 tpy VOC</p> <p>4.74 lbs PE/hr and 20.76 tpy from combined outlet of the two baghouses (F-402 and F-602)</p> <p>20% stack opacity, six min. average</p> <p>4.34 lbs PE/hr from the combined outlet of the two baghouses (F-402 and F602)</p>	<p>OAC rule 3745-31- 05(A)(3) PTI 07- 00264</p> <p>17-07(A) 17-11(B) 21-09(DD)</p>	<p>40 CF R Pa rt 63 Su bp art s F, G an d H 40 CF R Pa rt 60, Su bp art s NN N an d VV</p>																<p>OR- condenser (E-207) exit temperature shall not exceed 149 degrees Fahrenheit; each surge control vessel or bottoms receiver tank which meets one of the conditions listed in A.3.q of Part II, shall be equipped with a closed vent system that routes the organic vapors back to the process or a control device</p> <p>M - Daily check for presence or absence of visible particulate emissions; monitor the condenser (E-207) outlet temperature; monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A</p> <p>R - Document color of the emissions, total duration of incident and any corrective actions taken; record the daily average exit temperature of the E-207 condenser for each operating day; maintain records of process vent group determinations; maintain records for Group 2 storage vessels in accordance with HON; maintain records for the LDAR program in accordance with HON; maintain records for each Group 2 process wastewater stream and procedures for the management of maintenance wastewater in accordance with HON;</p> <p>Rp - Semiannual written reports identifying days visible particulate emissions present and description of corrective actions taken; report all daily average condenser (E-207) exit temperature exceedances; submit Periodic Reports , semiannually, no later than 60 days after the end of each 6-month period, and reports of startup, shutdown and malfunctions, on the same schedule, as required by HON; submit semiannual reports for the LDAR program</p> <p>ET - test hydrochloric acid scrubber (T-702) vent to demonstrate the flow rate is still negligible</p> <p>Misc -</p>
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<p>P004</p>	<p>emissions from process heater (B-10) shall not exceed: 0.30 lb PE/hr and 1.31 tpy PE 0.01 lb SO2/hr and 0.06 tpy SO2 2.94 lb Nox /hr and 12.9 tpy Nox 0.59 lb VOC/hr and 2.58 tpy VOC 48.29 lbs VOC/day and 8.81 tpy VOC from process vents 34.28 tpy fugitive VOC from equipment leaks 7.88 lbs/day and 1.44 tpy ammonia from process vents</p>	<p>OAC rule 3745-31-05(A)(3) 17-07(A) 17-10(B)(1) 18-06</p>	<p>40 CFR Part 63, Subparts F, G, and H 40 CFR Part 60 Subparts NN and VV</p>														<p>OR- minimum firebox temperature of 1444 degrees Fahrenheit in Aniline Production & Regeneration mode, 1254 degrees Fahrenheit in Diphenylamine Production & Regeneration mode, and 1629 degrees Fahrenheit in Co-Production of Aniline & Diphenylamine mode; scrubber (E-21) pressure drop range (0 - 2 in); water flow rate not less than 0.5 gal/min; shall only burn process vent and/or natural gas in the process heater; each surge control vessel or bottoms receiver tank which meets one of the conditions listed in Section A.3.q of Part II shall be equipped with a closed vent system that routes the organic vapors back to the processor to a control device</p> <p>M - maintain a temperature monitoring device, equipped with a continuous recorder, in the firebox of the process heater (B-10); monitor any bypass lines that could divert a vent stream away from the process heater (B-10); monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A; monitor the cooling water at the inlet and outlet of the aniline heat exchange system for the presence of aniline; monitor the E-21 scrubber pressure drop across the scrubber and the scrubber water flow rate; permittee shall perform pressure testing of the process heater (B-10) convection section once every calendar year.</p> <p>R - maintain records of the process heater (B-10) firebox temperature; maintain records for the LDAR program; hourly records of whether the flow indicator specified was operating and whether flow was detected at any time under the hour, as well as records of the times and durations of all periods when the vent stream is diverted from the control device or the monitor is not operating.; maintain records of process vent group determinations; maintain records for each Group 2 storage vessel and process wastewater stream in accordance with HON</p> <p>Rp -</p>
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<p>P004</p>	<p>vents 50.20 tpy ammonia from fugitive equipment leaks</p> <p>20 % stack opacity, 6 min. avg</p> <p>0.020 lb PE/MMBTU</p>														<p>record the pressure drop, scrubber water flow rate, and the downtime for the capture (collection) system, control device, monitoring equipment, on a daily basis; maintain records of other fuels burned other than natural gas and/or process vent gas; maintain records that the vent stream flow rate is less than 0.008 scm/min and any change in equipment or process operation that increases flow rate for distillation columns complying with 40 CFR Part 60.660(c)(6)</p> <p>Rp - submit Periodic Reports , semiannually, no later than 60 days after the end of each 6-month period, and reports of startup, shutdown and malfunctions, on the same schedule, as required by HON; permittee shall submit semiannual reports for the LDAR program; quarterly deviation reports of all periods the E-21 scrubber parameters were not maintained at or above the required levels; permittee shall submit reports of any fuels other than process vent gases and/or natural gas in the process heater (B-10) within 30 days to the PLAA; submittal of semiannual reports of any changes in the equipment or process operation that increases the E-110 distillation column vent stream flow rate above 0.008 scf/min; quarterly deviation reporting of any leaks discovered in the process heater (B-10) convection system</p> <p>ET - stack test process heater (305-LA) for VOC and the HAP concentration (ppm) and/or control efficiency</p>
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P006	16.71 lbs VOC/day 3.05 tpy VOC	OAC rule 3745-31- 05(A)(3) 21-09(DD)	40 CF R Pa rt 63, Su bp art s F, G, an d H 40 CF R Pa rt 60, Su bp art VV																<p>OR- average temperature of the exhaust gases from the condenser (3516-C), for any 3-hour contiguous block of time, shall not be more than 90 degrees Fahrenheit; each surge control vessel or bottoms receiver tank which meets one of the conditions listed in Section A.3.q of Part II shall be equipped with a closed vent system that routes the organic vapors back to the process or to a control device</p> <p>M - permittee shall maintain continuous temperature monitors and recorders which measure and record the temperature of the exhaust gases from the condenser (3516-C) ; monitoring for LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A</p> <p>R - record each day the average temperatures of the exhaust gases from the condenser (3516-C) during each of the eight 3-hour contiguous blocks of time and a log or record of operating time for the capture (collection) system, control device, monitoring equipment; maintain records of process vent group determinations; maintain records for the LDAR program; maintain procedures for the management of maintenance wastewater; maintain records for benzene waste operations</p> <p>Rp - quarterly temperature deviation reports that identify all 3-hour contiguous blocks of time condenser (3516-C) exceeded temperature limitation; semiannual reports for LDAR ; submit Periodic Reports , semiannually, no later than 60 days after the end of each 6-month period and reports of startup, shutdown and malfunctions, on the same schedule, as required by HON; submittal of reports for benzene waste operations</p> <p>ET - compliance determined based on emission factors derived</p> <p>Misc - m</p>
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<p>P007</p>	<p>131.62 lbs/day & 24.02 tpy of VOC from process vents 136.02 lbs/day & 24.82 tpy acetone from process vents emissions from the thermal oxidizer, of all sources vented to the thermal oxidizer, shall not exceed: 0.05 lb PE/hr and 2.19 tpy PE 7.5 lbs Nox/hr and 32.85 tpy Nox 0.1 lb SO2/hr and 0.44 tpy SO2 4.62 lbs VOC/hr and 19.72 tpy VOC</p>	<p>OAC rule 3745-31-05(A)(3) PTI 07-00500 17-07(A) 17-11(B) 18-06 21-09(DD)</p>	<p>40 CFR Part 63, Subpart S, F, G, and H 40 CFR Part 60, Subpart S, NN and VV</p>																<p>OR- average daily temperature of the exhaust gases from condenser (3301-C) shall not be greater than 40 degrees Fahrenheit (4.4 degrees Celsius); route the organic vapors from the bottoms receiver tank to a scrubber (3310-E) designed and operated to recover organic hap emissions or VOC emissions vented to it with an efficiency of 95% or greater, or to an exit concentration of 20 parts per million; scrubber flow rate maintained at a value of not less than 6 gal/min; route all organic vapors from Group 1 process vents to a thermal oxidizer (2007-L); minimum firebox temperature of thermal oxidizer shall be 1,450 degrees Fahrenheit (788 degrees Celsius) as a daily calendar average; permittee shall burn only process vent gases and/or natural gas in the thermal oxidizer (2007-L); the Phenol II Hub and the CHP Hub shall be equipped with tightly fitting solid covers</p> <p>M - permittee shall maintain a continuous temperature monitor and recorder which measures and records the temperature of the exhaust gases from the condenser (3301-C) on a daily basis; permittee shall monitor the closed vent system which routes the organic vapors from the crude acetone columns bottom surge tank (3302-F) to the scrubber (3310-E); permittee shall maintain a temperature monitoring device, equipped with a continuous recorder, in the firebox of the thermal oxidizer ; monitor any bypass lines that could divert a vent stream away from the thermal oxidizer; monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A; monitor the cooling water at the inlet and outlet of the Phenol II heat exchange system for the presence of cumene</p>
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<p>P008</p>	<p>emissions from process heater (305-LA) shall not exceed: 0.01 lb SO2/hr and 0.03 tpy SO2 1.89 lb VOC/hr and 8.29 tpy VOC 20 % stack opacity, 6 min. avg 0.020 lb PE/MMB TU</p>	<p>OAC rule 3745-31-05(A)(3) 17-07(A) 17-10(B)(1) 18-06 21-09(DD)</p>	<p>40 CFR Part 63, Subparts, F, G, and H 40 CFR Part 60, Subparts NN and VV</p>																<p>OR- route the organic vapors from Group 1 process vents to a process heater (305-LA) in order to comply with the percent reduction requirement or concentration limit; minimum firebox temperature of the process heater shall be 1,170 degrees Fahrenheit; permittee shall burn only process vent gases and/or natural gas in the Dowtherm process heater; the Phenol Hub and the CHP Hub shall be equipped with tightly fitting solid covers</p> <p>M - permittee shall maintain records of process vent group determinations; monitoring of LDAR shall comply with Method 21 of 40 CFR Part 60, Appendix A; monitor the cooling water at the inlet and outlet of the Phenol I heat exchange system for the presence of phenol and cumene;</p> <p>R - permittee shall maintain records for the LDAR program; permittee shall maintain records for each Group 2 storage vessel and Group 2 process wastewater stream in accordance with HON; permittee shall maintain heat exchange records and procedures for the management of maintenance wastewater in accordance with HON; monitor fuel use of than natural gas and/or process vent gases in the process heater (305-LA); maintain records for benzene waste operations</p> <p>Rp - Periodic Reports , semiannually, no later than 60 days after the end of each 6-month period and reports of startup, shutdown and malfunctions, on the same schedule, as required by HON; permittee shall submit semiannual reports for LDAR; permittee shall submit reports of any fuels burned in the process heater (305-LA) other than process vent gases and/or natural gas; submit reports for benzene waste operations</p>
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<p>P009</p>	<p>192.47 lbs VOC/hr & 35.13 tpy VOC from the wastewater r tanks and biological treatment unit 23.72 lbs acetone/day and 4.33 tpy acetone 185.32 lbs ammonia/day and 33.82 tpy ammonia emissions from the process heater (305-LA) shall not exceed: 1.89 lbs VOC/hr and 8.29 tpy VOC 0.01 lb SO2/hr and 0.03 tpy SO2 0.02 lb PE/MMB TU</p>	<p>OAC rule 3745-31-05(A)(3) 17-07(A) 17-10(B)(1)</p>	<p>40 CFR Part 63, Subpart F, G, and H 40 CFR Part 60, Subpart S VV and Kb</p>																<p>OR- treat the Group 1 wastewater streams in the enhanced biological treatment system (2600-D) with the COD of the biological treatment system not to exceed 200 ppm; route the HAP vapors from the methyl hydroperoxide destruct reactor (2472-D) to the Dowtherm process heater (305-LA); minimum firebox temperature of the process heater (305-LA) shall be 1,170 degrees Fahrenheit; process heater shall reduce the total organic compound emissions, less methane and ethane, or total organic HAPs emissions by at least 95 % by weight, or achieve an outlet total organic concentration, less methane and ethane, or total HAPs concentration of 20 ppmv on a dry basis, corrected to 3 % oxygen or provide a minimum residence time of 0.5 second at a minimum temperature of 760 degrees Celsius; permittee shall equip the Phenol I, II, and III Hubs and the CHP Hub with tightly fitting solid covers</p> <p>M permittee shall collect a sample from Side A and a sample from Side B of the biological treatment unit; ; maintain a temperature monitoring device, equipped with a continuous recorder, in the firebox of the process heater (305-LA); permittee shall perform semi-annual visual inspections of Group 1 wastewater tanks; monitor bypass lines that could divert a vent stream from a tank which contains Group 1 wastewater away from the process heater (305-LA)</p> <p>R - maintain daily records of the COD value for side A and for side B of the biological treatment unit; maintain records of the process heater (305-LA) firebox temperature; records of the wastewater tank inspections</p> <p>Rp - Periodic Reports , semiannually, no later than 60 days after the end of each 6-month period and reports of startup, shutdown and malfunctions, on the same schedule, as required by HON;submit reports for benzene waste operations</p>
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<p>P012</p>	<p>emissions from the catalytic oxidizer shall not exceed: 69.26 lbs VOC/day and 12.64 tpy VOC 4.93 lbs acetone/day and 0.90 tpy acetone 41.32 lbs Nox/day and 7.54 tpy Nox Negligible emissions of PM, PM10, SO2</p> <p>estimated fugitive and process vessel emissions are 28.10 tpy VOC and 8.9 tpy acetone VOC emissions shall be reduced by 99% 20 % stack opacity, 6 min. avg</p>	<p>OAC rule 3745-31-05(A)(3) PTI 07-00451</p> <p>31-11 through 31-20</p> <p>17-07(A) 17-11(B) 18-06 21-09(DD) 21-09(EE)</p>	<p>40 CFR Part 52.21 40 CFR Part 63, Subparts F, G, and H 40 CFR Part 60, Subparts NN, III, Kb, and V</p>															<p>OR- route the organic vapors from Group 1 process vents to a catalytic oxidizer (4230-L) in order to comply with the percent reduction and concentration limits; minimum temperature of gases at the inlet of the catalyst bed shall be 752 degrees Fahrenheit (400 degrees Celsius); minimum temperature difference of the gases across the catalyst bed shall be 49 degrees Fahrenheit (9.44 degrees Celsius); permittee shall only burn process vent and/or natural gas in the catalytic oxidizer (4230-L:); the Phenol Hub shall be equipped with tightly fitting solid covers</p> <p>M - maintain temperature monitoring devices, equipped with continuous recorders, immediately before and after the catalyst bed of the catalytic oxidizer (4230-L) ; monitor fuel use of than natural gas and/or process vent gases in the catalytic oxidizer (4230-L); monitoring for the LDAR program ; monitor the cooling water at the inlet and outlet of the Phenol III heat exchange system for the presence of cumene and phenol</p> <p>R - maintain records of the temperature prior to the catalyst bed, immediately after the catalyst bed, and the temperature difference across the catalyst bed ; maintain records for benzene waste operations; maintain records of process vent group determinations ; shall maintain records for each Group 2 storage vessel and Group 2 process wastewater stream in accordance with HON; permittee shall maintain heat exchange records and procedures for the management of maintenance wastewater in accordance with HON;</p>
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P013	Volatile organic compound emissions from all equipment except for the fugitive equipment leaks shall not exceed 49.35 pounds per day and 9.01 tons per year. Acetone emissions from all equipment except for the fugitive equipment leaks shall not exceed 25.81 pounds per day and 4.71 tons per year.	OAC rule 3745-31-05(A)(3) PTI 07-00500														
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		OAC rule 3745-31-10 through OAC rule 3745-31-20													
		OAC rule 3745-21-09(DD)													
		OAC rule 3745-21-09(DD)													
T022	0.159 tpy VOC	OAC rule 3745-31-05(A)(3)	40 CFR Part 63, Subpart F, G, and H 40 CFR Part 60, Subpart Kb	N	N	N	N	N	Y	N	N	N	N	N	OR- none R - permittee shall comply with record keeping requirements for group 2 storage vessels in accordance with HON Rp - none required per 40 CFR Part 63, Subpart G or Kb ET - compliance with VOC limitation determined with AP-42 emission factors Misc -

T023 T024	5.86 tpy VOC	OAC rule 3745-31- 05(A)(3)	40 CFR Part 63, Sub part s F, G, and H	N	N	N	N	N	Y	N	N	N	N	N	OR- none R - permittee shall comply with record keeping requirements for group 2 storage vessels in accordance with HON Rp - none required per 40 CFR Part 63, Subpart G ET - compliance with VOC limitation determined with AP-42 emission factors Misc -
T025 T026	4.93 tpy VOC	OAC rule 3745-31- 05(A)(3)	40 CFR Part 63, Sub part s F, G, and H	N	N	N	N	N	Y	N	N	N	N	N	OR- none R - permittee shall comply with record keeping requirements for group 2 storage vessels in accordance with HON Rp - none required per 40 CFR Part 63, Subpart G ET - compliance with VOC limitation determined with AP-42 emission factors Misc -

T029 T030	0.40 tpy VOC	OAC rule 3745-31- 05(A)(3)	40 CFR Part 63, Subpart s F, G, and H 40 CFR Part 60, Subpart Kb	N	N	Y	Y	N	Y	Y	Y	Y	N	N	OR- none M - monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A R - permittee shall maintain records for the LDAR program in accordance with HON Rp - permittee shall submit semi-annual reports for the LDAR program in accordance with HON ET - compliance with VOC limitation determined with AP-42 emission factors Misc -
T033	7.96 tpy VOC	OAC rule 3745-31- 05(A)(3)	40 CFR Part 63, Subpart s F, G, and H	N	N	N	N	N	Y	N	N	N	N	N	OR- none R - permittee shall comply with record keeping requirements for group 2 storage vessels in accordance with HON Rp - none required per 40 CFR Part 63, Subpart G ET - compliance with VOC limitation determined with AP-42 emission factors Misc -

T034	5.06 tpy VOC	OAC rule 3745-31- 05(A)(3)	40 CFR Part 63, Subpart s F, G, and H	N	N	N	N	N	Y	N	N	N	N	N	OR- none R - permittee shall comply with record keeping requirements for group 2 storage vessels in accordance with HON Rp - none required per 40 CFR Part 63, Subpart G ET - compliance with VOC limitation determined with AP-42 emission factors Misc -
T039	4.94 tpy VOC	OAC rule 3745-31- 05(A)(3)	40 CFR Part 63, Subpart s A, F, and G	N	N	N	N	N	Y	N	N	N	N	N	OR- none R - permittee shall comply with record keeping requirements for group 2 storage vessels in accordance with HON Rp - none required per 40 CFR Part 63, Subpart G ET - compliance with VOC limitation determined with AP-42 emission factors Misc -
T045 T046	1.65 tpy VOC	OAC rule 3745-31- 05(A)(3)		N	N	N	N	N	N	N	N	N	N	N	OR- none M, R, Rp - not required to demonstrate compliance ET - compliance with VOC limitation determined with AP-42 emission factors Misc -

T059	1.11 tpy VOC	OAC rule 3745-31- 05(A)(3)	40 CFR Part 63, Subpart s F, G, and H 40 CFR Part 60, Subpart Kb	N	N	N	N	N	Y	N	N	N	N	N	<p>OR- none</p> <p>R - permittee shall comply with record keeping requirements for group 2 storage vessels in accordance with HON</p> <p>Rp - none required per 40 CFR Part 63, Subpart G and Kb</p> <p>ET - compliance with VOC limitation determined with AP-42 emission factors</p> <p>Misc -</p>
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T063	1.8 lbs/day VOC 0.33 tpy VOC	OAC rule 3745-31-05(A)(3)	40 CFR Part 63, Subparts F, G, and H 40 CFR Part 60, Subpart Kb	N	N	N	N	N	Y	Y	N	N	N	N	OR - none M - monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A R - permittee shall maintain records for the LDAR program in accordance with HON Rp - permittee shall submit semi-annual reports for the LDAR program in accordance with HON ET - compliance with VOC limitation determined with AP-42 emission factors Misc -
T064	6.55 tpy VOC	OAC rule 3745-31-05(A)(3)	40 CFR Part 63, Subparts A, F, and G	N	N	N	N	N	Y	N	N	N	N	N	OR - none R - permittee shall comply with record keeping requirements for group 2 storage vessels in accordance with HON Rp - none required per 40 CFR Part 63, Subpart G ET - compliance with VOC limitation determined with AP-42 emission factors Misc -

EU = emissions unit ID

ND = negative declaration (i.e., term that indicates that a particular rule(s) is (are) not applicable to a specific emissions unit)

OR = operational restriction

M = monitoring requirements

St = streamlining term used to replace a PTI monitoring, record keeping, or reporting requirement with an equivalent or more stringent requirement

ENF = did noncompliance issues drive the monitoring requirements?

R = record keeping requirements

Rp = reporting requirements

ET = emission testing requirements (not including compliance method terms)

Misc = miscellaneous requirements

C Instructions for Part III:

- C All non-insignificant EUs must be included in this table. For each EU, or group of similar EUs, each emission limitation and control requirement specified in section A.I.1 and A.I.2 of the permit must be identified and the remainder of the table completed.**
- C If the SIP (not including OAC rule 3745-31-05) is the basis for the term and condition, identify the specific rule. If the SIP is not the basis for the term and condition, place an “N” in the column under “SIP.” If the basis for the term and condition is something other than the SIP, including OAC rule 3745-31-05, NSPS or MACT, a “Y” should be noted in the “Other” column, and if not, an “N” should be noted. If the basis for the term and condition is “Other,” an explanation of the basis must be provided in the “Comments” section. If OAC rule 3745-31-05 is cited in the “Other” column, please indicate in the “Comments” section whether or not all of the requirements have been transferred from the permit to install.**
- To complete the remainder of the table after “Basis,” except for the “Comments” section, simply specify a “Y” for yes or an “N” for no. For the “M,” “R,” “Rp,” and “ET” columns, if “N” is specified, there should be a brief explanation in the “Comments” section as to why there are no requirements. If a brief explanation is provided in the “Comments” section, please do not simply indicate that monitoring or testing requirements are not necessary. An explanation of why a requirement is not necessary should be specified.**

When periodic monitoring requirements are established to satisfy the provisions of OAC rule 3745-77-07(A)(3)(a)(ii), the basis for the requirements must be explained. Whenever Engineering Guides have been used to establish the periodic monitoring requirements, the applicable Engineering Guide may be referenced in the “Comments” section. An example that should be clarified would be the situation where it has been determined that control equipment parametric monitoring will be used to evaluate ongoing compliance in lieu of performing frequent emission tests. In this situation, Engineering Guide #65 would be referenced along with the fact that the parametric monitoring range (or minimum value) corresponded to the range (or minimum value) documented during the most recent emission tests that demonstrated that the emissions unit was in compliance. If streamlining language is included in the “Monitoring,” “Record Keeping,” or “Reporting” requirements sections of the permit, explain which requirements are being streamlined (mark appropriate

column above) and provide a brief explanation of why the streamlined term is equal to or more stringent than the “Monitoring,” “Record Keeping,” or “Reporting” requirements specified in the permit to install. If Engineering Guide #16 was used as the basis for establishing an emission test frequency, a simple note referencing the Engineering Guide in the “Comments” section would be sufficient.

Also, if a “Y” is noted under “OR,” “Misc,” “St,” “ND,” or “ENF” an explanation of the requirements must be provided in the “Comments” section. In addition to a general explanation of the “OR,” “Misc,” “St,” “ND,” and/or “ENF” the following must be provided:

1. For an operational restriction, clarify if appropriate monitoring, record keeping, and reporting requirements have been specified for the operational restriction and indicate whether or not CAM is currently applicable.
2. If a control plan and schedule is included in the “Miscellaneous Requirements” section of the permit, provide an explanation in the “Comments” section of the violation, basis for the violation, and the company’s proposed control plan and schedule.
3. If the “ND” column above is marked, please identify the particular rule(s) that is (are) not applicable to the specified emissions unit.
4. If the “ENF” column above is marked, please provide a brief explanation of the noncompliance issue(s) which prompted the use of the specified monitoring requirement.

An explanation is not required if an “N” is noted in the “OR,” “Misc,” “St,” “ND,” or “ENF” columns.