

Statement of Basis For Title V Permit

Modified 2/27/2008

Company Name	Sunoco, Inc.
Premise Number	0448010246
What makes this facility a Title V facility?	Potential to emit over 100 tons per year of nitrogen oxides, particulate matter, sulfur dioxide, organic carbons and carbon monoxides; over 25 tons per year of HAPs.
Has each insignificant emissions unit been reviewed to confirm it meets the definition in OAC rule 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.	<p>Sunoco, Inc. refinery is the generator of waste streams for which the total annual benzene quality exceeds 10 megagrams per year (11 tons per year), so 40 CFR 61, subpart FF is applicable to the Sunoco refinery. TWO LLC/Veolia Water and Process Solutions are independent companies which are contracted and responsible to treat the Sunoco refinery waste streams. Portions of 40 CFR 61, subpart FF are applicable to the operations of both TWO LLC/Veolia Water and Process Solutions. TWO LLC/Veolia Water and Process Solutions will be responsible to the extent of their control of the benzene treatment process.</p> <p style="text-align: center;">The relation of these three firms is described below.</p> <ul style="list-style-type: none"> - Sunoco, Inc., a refinery operating in Lucas County, contracts the treatment of it's wastewater to TWO LLC/Veolia Water. - TWO LLC/US Filter owns and operates an API oil-water separator and other wastewater treatment equipment which accepts wastewater which originates, at this time, exclusively from the Sunoco related facilities. TWO LLC/Veolia Water and Sunoco occupy adjacent and separate areas within the refinery boundaries. TWO LLC/Veolia Water produces treated water and oil which are returned to Sunoco as separate streams; and a mixture of oil, water, and solids ("sludge") which are sent to US Filter Scaltech for further processing. - Process Solutions operates sludge processing equipment as a part of the wastewater treatment process and occupies adjacent separate areas within the refinery boundaries to both TWO LLC/Veolia Water and Sunoco. Process Solutions receives oil, water and solid mixtures from TWO LLC/Veolia Water or from Sunoco, exclusively (at this time). Process Solutions separates these waste streams into a water and oil mixture, which is returned to TWO LLC/Veolia Water and oil which is returned to Sunoco. <p>Each of these facilities will have a TV permit. TWO LLC/Veolia Water's premise number is 0448020080 and Process Solutions' premise number is 0448011640.</p>

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)	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 reopening per OAC rule 3745-77-08(D)	The reopening of the TV is to incorporate new PTI's and PTI modifications along with Consent Decree terms and conditions . The PTI's incorporated are PTI 04-01447, PTI 04-01319, PTI 04-01421.
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.1.1.	N	40 CFR 63, subpart A	General Provisions for Refinery MACT Lists some of the General Provisions for MACT which includes the requirements for flares.
A.1.2.	N	40 CFR 63, subpart CC	Refinery MACT Some of the general terms from 40 CFR 63.640, 63.641 and 63.642. Leak Detection and Repair Program. The permittee shall comply with 40 CFR 63, subpart CC for the LDAR requirements which allows the permittee to comply with 40 CFR 60, subpart VV.
A.1.3.	N	40 CFR 63, subparts F	40 CFR 63, subparts F, G and H - Equipment Leaks for Hazardous Organic NESHAP (HON) emissions units (currently applies to emissions units P008, P013, P014, P031, J001 and J002).
A.1.4.	N	40 CFR 63, subparts H	HON LDAR PROGRAM - Equipment Leaks for Hazardous Organic NESHAP (HON) emissions units Applicability of the various types of HON equipment, Definitions and Compliance with subpart H also deems compliance with 40 CFR 60, subpart VV, GGG or KKK; 40 CFR 61, subpart F or J; or 40 CFR 264, subpart BB or 40 CFR 265, subpart BB.
A.1.5.	N	40 CFR 63, subpart GGGGG	40 CFR 63, subpart GGGGG, National Emission Standards for Hazardous Air Pollutants: Site Remediation. The permittee shall comply with all applicable requirements of 40 CFR 63, subpart GGGGG. The permittee shall also comply with all applicable requirements of 40 CFR 63, subpart A (General Provisions) as identified in Table 3 of 40 CFR 63, subpart GGGGG.
A.1.6.	N	31-05 (10)(C)	Recordkeeping for netting purposes as required by PTI 04-01421 for NOx emissions.
A.1.7.	N	31-05 (10)(C)	Recordkeeping for netting purposes as required by PTI 04-01447 for VOC.
A.1.8.	21-09 (M)	N	SIP requirements for process unit turnarounds
A.1.9.	N	Y	Definition for tank seal inspections, "annual" shall mean "during the calendar year" and "12 months" shall mean "during the previous 12 months", e.g., August to August.

A.I.10.	N	Y	The sulfur dioxide emissions resulting from the bypassing of gases from the sour water stripper to the flare(s) shall be subject to the allowable sulfur dioxide emission limitation for emissions unit P012.
A.I.11.	N	Y	NSPS and MACT Regulations were originally going to be specified as appendices in the TV permit. Now, the complete 40 CFR 60 (NSPS) and 40 CFR Part 63 (MACT) requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the Toledo Division of Environmental Services. The references to the Appendices were still kept in the permit and will be removed during the TV renewal.
A.I.12	Y	N	Lists the insignificant units associated with this facility.

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.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
All "B" Sources	Varies for each source, majority only had to send notification, the others have a 400 ppm CO limit.	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	40 CFR 63, subpart DDDDD - All the "B" sources (except the CO boilers, B046 & B047) were subject to 40 CFR 63, subpart DDDDD (Boiler MACT). The MACT was rescinded in July of 2007. The refinery at this time has decided to continue to follow the requirements of the Boiler MACT, which only required notifications for most of the sources. A few have to test for CO. The terms were left in the permit at this time.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
B006, B008, B009, B014, B015, B016, B017, B018, B019, B021, B022, B023, B025, B026, B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B052	20% opacity, as a 6 minute average, except as provided by the rule	17-07 (A)	N	N	Y	N	N	N	N	N	N	N	Y	N	OR - These sources are exempt from CAM because they have no control equipment. Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.
	0.20 lb particulate emissions (PE) per mmBtu of actual heat input	17-10 (B)(1)	N	N	Y	N	N	N	N	N	N	N	Y	N	OR - Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.
	0.04 lb SO2 per mmBtu of actual heat input	18-54 (O)(1)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR - Permittee shall burn only Refinery Fuel Gas (RFG) a mixture of landfill gas, natural gas and refinery process gas in these units. Appropriate M, R Rp and ET have been specified . Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit.
B010	20% opacity, as a 6 minute average, except as provided by the rule	17-07(A)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR - This source is exempt from CAM because it has no control equipment. Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	0.19 lb particulate emissions (PE) per mmBtu of actual heat input	17-10 (C)(1)	N	N	Y	N	N	N	N	N	N	N	Y	N	OR - Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.
	1.60 lb SO2 per mmBtu of actual heat input	18-54 (O)(5)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit.
B018	0.04 pound of nitrogen oxides (NOx) per mmBtu of actual heat input	31-02 (A)(2)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	BASIS - Allowable emissions for NOx as stated in PTI 04-0421 for netting purposes. OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas). Appropriate M, R Rp and ET have been specified.
B044	20% opacity, as a 6 minute average, except as provided by the rule	17-07 (A)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR - CAM does not apply to this 1954 source because it has no control equipment. Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) in these units. Appropriate M, R Rp and ET have been specified.
	0.14 lb particulate emissions (PE) per mmBtu of actual heat input	17-10 (C)(1)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR - CAM does not apply to this 1954 source because it has no control equipment. Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) in these units.. Appropriate M , R Rp have been specified through opacity not specifically for PE.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	1.8 lb SO2 per mmBtu of actual heat input	18-54 (O)(4)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit. The burning of fuel oil is prohibited. This emission limit was associated with the burning of fuel oil, therefore, this emission limit is no longer applicable.</p> <p>NOTE: The permittee shall no longer operate this unit upon startup of the 2008 Expansion project (PTI 04-01447 as stated in Part II, 1. and 2. of the PTI).</p>
	47 TPY NOx	14-01 (A)	N	N	Y	Y	N	N	Y	N	Y	N	N	Y	<p>BASIS - NOx Budget Trading Program Terms</p> <p>OR - the NOx allowances have to be held in, deducted from, or transferred among NOx allowance tracking system. Excess emissions will result in the surrender of the NOx allowances required for deduction.</p> <p>ET - Init. compliance certification and recertification terms are under section A.VI. of the permit.</p> <p>Misc. - requirements for submitting NOx budget permit renewal applications and revisions, information on NOx allowance transfers; initial and recertification procedures; and out of control periods.</p>
	0.04 pound of sulfur dioxide per million Btu of actual heat input	31-02 (A)(2)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit. The burning of fuel oil is prohibited.</p> <p>NOTE: The permittee shall no longer operate this unit upon startup of the 2008 Expansion project (PTI 04-01447 as stated in Part II, 1. and 2. of the PTI).</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
B046, B047	THE FOLLOWING EMISSION LIMITS APPLY AFTER THE START-UP OF PTI 04-01447. <i>While operating the CO boiler as a control unit for the FCCU unit, the following emission limitations apply:</i>														
	The combined filterable particulate matter (PM) emissions from the FCCU (Emissions Unit P011) and the CO Boilers (B046 and B047) shall not exceed 0.45 pound per thousand pounds of coke-burnoff	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The monitoring, recordkeeping, reporting and testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>OR: The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit. Appropriate M, R, Rp and ET have been specified.</p>
	The combined sulfur dioxide (SO ₂) emissions from P011, B046 and B047 shall not exceed 316 pounds per hour	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) - all terms from PTI 04-0144, emission units B046 & B047, were transferred to this permit. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The M, RK, Rpt & Testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>OR: The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit. Appropriate M, R, Rp and ET have been specified.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined volatile organic compound (VOC) emissions from the FCCU (Emissions Unit P011) and the CO Boilers (Emissions Units B046 and B047) shall not exceed 3.67 pounds per hour	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) - all terms from PTI 04-0144, emission units B046 & B047, were transferred to this permit. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The M, RK, Rpt & Testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>OR: The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit. Appropriate M, R, Rp and ET have been specified.</p>
	The combined sulfuric acid (H ₂ SO ₄) mist emissions from the FCCU (P011) and CO Boilers (B046 and B047) shall not exceed 10 ppmvd and 215.84 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) - all terms from PTI 04-0144, emission units B046 & B047, were transferred to this permit. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The M, RK, Rpt & Testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>OR: The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit. Appropriate M, R, Rp and ET have been specified.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined nitrogen oxides (NOx) emissions from P011, B046 and B047 shall not exceed 198.51 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) - all terms from PTI 04-0144, emission units B046 & B047, were transferred to this permit. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The M, RK, Rpt & Testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>OR: The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit. Appropriate M, R, Rp and ET have been specified.</p>
	The combined filterable particulate matter (PM) emissions from P011, B046 and B047 shall not exceed 165.96 tons per year	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) - all terms from PTI 04-0144, emission units B046 & B047, were transferred to this permit. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The M, RK, Rpt & Testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>OR: The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit. Appropriate M, R, Rp and ET have been specified.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined sulfur dioxide (SO ₂) emissions from P011, B046 and B047 shall not exceed 345.71 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) - all terms from PTI 04-0144, emission units B046 & B047, were transferred to this permit. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The M, RK, Rpt & Testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>OR: The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit. Appropriate M, R, Rp and ET have been specified.</p>
	The combined volatile organic compounds (VOC) emissions from the FCCU (Emissions Unit P011) and the CO Boilers (Emissions Units B046 and B047) shall not exceed 16.07 tons per year, based upon a rolling, 365-day summation of the ions	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) - all terms from PTI 04-0144, emission units B046 & B047, were transferred to this permit. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The M, RK, Rpt & Testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>OR: The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit. Appropriate M, R, Rp and ET have been specified.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined CO emissions from P011, B046 and B047 shall be reduced by a minimum of 99% control efficiency and shall not exceed 500 parts per million by volume dry (ppmvd) at 0% oxygen as a 1-hour average, or 180 ppmvd at 0% oxygen as a rolling, 365-day average, or 1,087.28 tons per year, based upon a rolling, 365-day summation of the daily emissions	31-10 thru 20	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-10 through 20 - all terms from PTI 04-0144, emission units B046 & B047, were transferred to this permit. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The M, RK, Rpt & Testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>OR: The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit. Appropriate M, R, Rp and ET have been specified.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined PM ₁₀ emissions from P011, B046 and B047 shall be controlled by a minimum of 95% and shall not exceed 0.90 pound per thousand pounds of coke-burnoff or 331.92 tons per year, based upon a rolling, 365-day summation of the daily emissions	31-10 thru 20	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-10 through 20 - all terms from PTI 04-0144, emission units B046 & B047, were transferred to this permit. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The M, RK, Rpt & Testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>OR: The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit. Appropriate M, R, Rp and ET have been specified.</p>
	Visible particulate emissions from any stack serving this unit shall not exceed 20 % opacity, as a 6-minute average, except as provided by the rule	17-07(A)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - This source is exempt from CAM because it is subject to 40 CFR 63 subpart UUU which will meet CAM's requirements when it operates as a control unit for P011.</p> <p>OR - This unit is currently subject to a CEM by virtue of its operational linkage to the fluid bed catalytic unit (FCC) affected by 40 CFR 51, Appendix P. Continuous opacity monitoring will be required by the terms of emissions unit P011. An alternative monitoring plan approved by USEPA is another option and is found in section A.III. of P011, after the expansion. Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas in these units), residual fuel oil or the off gases from the regeneration of the catalyst in these units. Appropriate M, R, Rp and ET have been specified.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	0.14 pound of filterable PM emissions per million Btu of actual heat input	17-10 (C)(1)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-10 through 20 - all terms from PTI 04-0144, emission units B046 & B047, were transferred to this permit. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The M, RK, Rpt & Testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>OR: The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit. Appropriate M, R, Rp and ET have been specified.</p>
	The combined emissions from P011, B046 and B047 shall not exceed 3.00 pounds of SO ₂ per thousand pounds of fresh feed	18-54 (O)(3)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - Limit is based on process weight rate of 4300 tons per hour. When the unit burns CO gases from the FCC unit (P011), the SO₂ limits is a combined limit for P011, B046 and B047</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas in these units), residual fuel oil or the off gases from the regeneration of the catalyst in these units. Appropriate M, R, Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO₂ emission limit of OAC 3745-18-54(O)(3) when not burning the off gases.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	<i>When the FCCU unit has a malfunction or is in startup or shutdown, the following emission limitations apply when emissions are vented to the existing CO boiler stack:</i>														
	Filterable plus condensable particulate matter emissions (PM) shall not exceed 2.53 pounds per hour and 11.10 tons per year as a rolling 12-month summation of the monthly emissions	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) - The hourly and annual emission limitations for PM, PM ₁₀ , NO _x , CO and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit if it operated for 8760 hours per year while the FCCU (P011) is in a malfunction, startup or shutdown (PTI 04-01447). Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations. OR: The permittee shall not burn oil in this emissions unit during periods when emissions are vented to the existing CO Boiler stack.
	Nitrogen oxides (NO _x) emissions shall not exceed 13.60 pounds per hour and 59.57 tons per year as a rolling 12-month summation of the monthly emissions	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) - The hourly and annual emission limitations for PM, PM ₁₀ , NO _x , CO and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit if it operated for 8760 hours per year while the FCCU (P011) is in a malfunction, startup or shutdown (PTI 04-01447). Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations. OR: The permittee shall not burn oil in this emissions unit during periods when emissions are vented to the existing CO Boiler stack.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Sulfur dioxide (SO ₂) emissions shall not exceed 9.15 pounds per hour (based on NSPS limit of 0.027 lb SO ₂ /mmBtu) and 40.06 tons per year as a rolling 12-month summation of the monthly emissions	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01447, all terms from PTI 04-01447, emission units B046 & B047, were transferred to this permit.</p> <p>OR: The permittee shall not burn oil in this emissions unit during periods when emissions are vented to the existing CO Boiler stack.</p>
	Volatile organic compounds (VOC) shall not exceed 1.83 pounds per hour and 8.03 tons per year as a rolling 12-month summation of the monthly emissions	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) - The hourly and annual emission limitations for PM, PM₁₀, NO_x, CO and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit if it operated for 8760 hours per year while the FCCU (P011) is in a malfunction, startup or shutdown (PTI 04-01447). Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.</p> <p>OR: The permittee shall not burn oil in this emissions unit during periods when emissions are vented to the existing CO Boiler stack.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Particulate matter emissions less than 10 microns in diameter (PM ₁₀) shall not exceed 2.53 pounds per hour and 11.10 tons per year as a rolling 12-month summation of the monthly emissions	Y	N	N	Y	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) - The hourly and annual emission limitations for PM, PM₁₀, NO_x, CO and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit if it operated for 8760 hours per year while the FCCU (P011) is in a malfunction, startup or shutdown (PTI 04-01447). Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.</p> <p>OR: The permittee shall not burn oil in this emissions unit during periods when emissions are vented to the existing CO Boiler stack.</p>
	Carbon monoxide (CO) emissions shall not exceed 28.00 pounds per hour and 122.64 tons per year as a rolling 12-month summation of the monthly emissions	Y	N	N	Y	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) - The hourly and annual emission limitations for PM, PM₁₀, NO_x, CO and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit if it operated for 8760 hours per year while the FCCU (P011) is in a malfunction, startup or shutdown (PTI 04-01447). Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.</p> <p>OR: The permittee shall not burn oil in this emissions unit during periods when emissions are vented to the existing CO Boiler stack.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	20% opacity, as a 6 minute average, except as provided by the rule	17-07(A)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>Basis - This source is exempt from CAM because it is subject to 40 CFR 63 subpart UUU which will meet CAM's requirements when it operates as a control unit for P011.</p> <p>OR - This unit is subject to a CEM by virtue of its operational linkage to the fluid bed catalytic unit (FCC) affected by 40 CFR 51, Appendix P. Continuous opacity monitoring will be required by the terms of emissions unit P011. Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas in these units), residual fuel oil or the off gases from the regeneration of the catalyst in these units. Appropriate M, R, Rp and ET have been specified.</p>
THE FOLLOWING EMISSION LIMITS APPLY BEFORE THE START-UP OF THE EXPANSION IN PTI 04-01447.															
	20% opacity, as a 6 minute average, except as provided by the rule	17-07(A)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>Basis - This source is exempt from CAM because it is subject to 40 CFR 63 subpart UUU which will meet CAM's requirements when it operates as a control unit for P011.</p> <p>OR - This unit is subject to a CEM by virtue of its operational linkage to the fluid bed catalytic unit (FCC) affected by 40 CFR 51, Appendix P. Continuous opacity monitoring will be required by the terms of emissions unit P011. Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas in these units), residual fuel oil or the off gases from the regeneration of the catalyst in these units. Appropriate M, R, Rp and ET have been specified.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	0.14 lb particulate emissions (PE) per mmBtu of actual heat input	17-10 (C)(1)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>OR - This unit is subject to a CEM by virtue of its operational linkage to the fluid bed catalytic unit (FCC) affected by 40 CFR 51, Appendix P. Continuous opacity monitoring will be required by the terms of emissions unit P011. Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas in these units), residual fuel oil or the off gases from the regeneration of the catalyst in these units. Appropriate M, R, Rp and ET have been specified.</p> <p>When the FCC unit (P011) is in operation, the combined PE limitation for sources P011 (98.1 lb PE/hr), B046 (47.6 lb PE/hr) and B047 (47.6 lb/hr) is 193.3 lbs PE per hour since they vent to the same stack. This limit is based on process weight rate of 4300 tons per hour.</p>
	3.00 lbs SO2 per 1,000 lbs of fresh feed	18-54 (O)(3)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>Basis - Limit is based on process weight rate of 4300 tons per hour. When the unit burns CO gases from the FCC unit (P011), the SO2 limits is a combined limit for P011, B046 and B047</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas in these units), residual fuel oil or the off gases from the regeneration of the catalyst in these units. Appropriate M, R, Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit of OAC 3745-18-54(O)(3) when not burning the off gases.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	1.6 lbs SO2 per mmBtu of actual heat input when FCC unit is not operating	18-06(D)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>Basis - this limit is for SO2 when the FCC unit is not operating.</p> <p>OR -Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas in these units) and/or residual fuel oil. Appropriate M, R, Rp and ET have been specified</p>
B048	20% opacity, as a 6 minute average, except as provided by the rule	17-07 (A)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>This source is exempt from CAM because it has no control equipment.</p> <p>OR -. Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified.</p>
	0.26 lb particulate emissions (PE) per mmBtu of actual heat input	17-10 (C)(1)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified..</p>
	1.40 lb SO2 per mmBtu of actual heat input	18-54 (O)(7)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>OR - Has H2S CEM. Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) for this limit. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Restriction on the hydrogen sulfide (H2S) burned in this unit. Limit is 230 mg/dscm (0.10 gr/dscf or 159 ppmv)	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>BASIS - 40 CFR 60.104(a)(1) of subpart J</p> <p>OR - Has H2S CEM. Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit.</p> <p>Misc. - 40 CFR 60, Appendix F Procedure 1, section 5.2 refers to excessive audit inaccuracy in regards to the H2S CEM</p>
B050	20% opacity, as a 6 minute average, except as provided by the rule	17-07 (A)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>This source is exempt from CAM because it has no control equipment.</p> <p>OR - Has H2S CEM. Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	0.005 lb particulate emissions (PE) per mmBtu of actual heat input; (5.0 lb PE/mmcft) and 1.6 TPY PE	31-05 (A)(3)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - Allowable emissions for PE and NOx as stated in PTI 04-0420 as BAT OAC rule 3745-17-10(B)(1); OAC rule 3745-18-54(O)(1) and 40 CFR 52.1881(b)(21)(xiv) are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). Also the requirements of this rule also include compliance with the requirements of 40 CFR 60 subpart J.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified.</p>
	8.4 TPY SO2	31-05 (A)(3)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - Allowable emissions for PE and NOx as stated in PTI 04-0420 as BAT OAC rule 3745-17-10(B)(1); OAC rule 3745-18-54(O)(1) and 40 CFR 52.1881(b)(21)(xiv) are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). Also the requirements of this rule also include compliance with the requirements of 40 CFR 60 subpart J.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	0.12 lb NOx per mmBtu of actual heat input and 35.8 TPY NOx	31-05 (A)(3)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - Allowable emissions for PE and NOx as stated in PTI 04-0420 as BAT OAC rule 3745-17-10(B)(1); OAC rule 3745-18-54(O)(1) and 40 CFR 52.1881(b)(21)(xiv) are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). Also the requirements of this rule also include compliance with the requirements of 40 CFR 60 subpart J.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified.</p>
	Restriction on the hydrogen sulfide (H2S) burned in this unit. Limit is 230 mg/dscm (0.10 gr/dscf or 159 ppmv)	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>Other - 40 CFR 60.104(a)(1) of subpart J</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit as stated in 40 CFR 60 subpart J.</p> <p>Misc. - 40 CFR 60, Appendix F Procedure 1, section 5.2 refers to excessive audit inaccuracy in regards to the H2S CEM</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
B051	20% opacity, as a 6 minute average, except as provided by the rule	17-07 (A)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	This source is exempt from CAM because it has no control equipment. OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units. Appropriate M, R Rp and ET have been specified.
	1.86 lb/hr PE and 8.16 TPY PE	N	31-05 (A)(3)	N	N	N	N	N	N	N	N	N	Y	N	BASIS - OAC rule 3745-31-05(A)(3) Allowable emissions for PE, SO2, NOx, CO and VOC as established in PTI 04-0500 as BAT The hourly limitations were established for PTI purposes to reflect potential to emit for this emissions unit, therefore, it is not necessary to develop M, R and Rp to ensure compliance with these limitations. OAC rule 3745-17-10(B)(1); OAC rule 3745-18-54(O)(1) and 40 CFR 52.1881(b)(21)(xiv) are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units. Appropriate M, R Rp and ET have been specified.
	6.6 lb/hr SO2 and 28.9 TPY SO2	N	31-05 (A)(3)	N	N	N	N	N	N	N	N	N	Y	N	See above. OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	30.00 lb/hr NOx and 131.4 TPY NOx	N	31-05 (A)(3)	N	N	N	N	N	N	N	N	N	Y	N	See above. OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units. Appropriate M, R Rp and ET have been specified.
	20.59 lb/hr CO and 90.18 TPY CO	N	31-05 (A)(3)	N	N	N	N	N	N	N	N	N	Y	N	See above. OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units. Appropriate M, R Rp and ET have been specified.
	1.35 lb/hr VOC and 5.90 TPY VOC	N	31-05 (A)(3)	N	N	N	N	N	N	N	N	N	Y	N	See above. OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units. Appropriate M, R Rp and ET have been specified.
	BAT requirements in PTI 04-0500.	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	Other - the requirements of this rule also include compliance with 40 CFR 60.104(a)(1) of subpart J.
	230 mg/dscm (0.10 gr/dscf) H2S	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	Other - 40 CFR 60.104(a)(1) of subpart J OR - Has H2S CEM. Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit. Misc. - 40 CFR 60, Appendix F Procedure 1, section 5.2 refers to excessive audit inaccuracy in regards to the H2S CEM

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
B052	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule	17-07 (A)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	This source is exempt from CAM because it has no control equipment. OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units. Appropriate M, R Rp and ET have been specified.
	0.020 pound of particulate emissions per mmBtu of actual heat input	17-10 (B)(1)	N	N	Y	N	N	N	N	N	N	N	Y	N	OR - Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.
	0.04 pound of sulfur dioxide (SO ₂) per mmBtu of actual heat input	18-54 (O)(1)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO ₂ emission limit.
B053	8.58 pounds of carbon monoxide (CO) per hour, 37.57 tons of CO per year	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01319 OR - Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	4.17 pounds of nitrogen oxides (NOx) per hour, 18.27 tons of NOx per year	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01319 OR - Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.
	1.94 pounds of particulate emissions (PE) per hour, 8.50 tons of PE per year	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01319 OR - Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.
	2.61 pounds of sulfur dioxide (SO2) per hour, 11.43 tons of SO2 per year	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01319 OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit.
	0.56 pound of volatile organic compounds (VOC), 2.46 tons of VOC per year	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01319 OR - Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average	17-07 (A)	N	N	Y	N	N	N	N	N	N	N	Y	N	<p>This source is exempt from CAM because it has no control equipment.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units.</p> <p>M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.</p>
	0.020 pound of PE per mmBtu of actual heat input	17-10 (B)(1)	N	N	Y	N	N	N	N	N	N	N	Y	N	<p>This source is exempt from CAM because it has no control equipment.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units.</p> <p>M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.</p>
	Restriction on the hydrogen sulfide (H2S) burned in this unit. Limit is 230 mg/dscm (0.10 gr/dscf or 159 ppmv)	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>Other - 40 CFR 60.104(a)(1) of subpart J</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit as stated in 40 CFR 60 subpart J.</p> <p>Misc. - 40 CFR 60, Appendix F Procedure 1, section 5.2 refers to excessive audit inaccuracy in regards to the H2S CEM</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
B054	4.69 pounds of carbon monoxide (CO) per hour, 20.53 tons of CO per year	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01319 OR - Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.
	2.28 pounds of nitrogen oxides (NOx) per hour, 9.98 tons of NOx per year	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01319 OR - Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.
	1.06 pounds of particulate emissions (PE) per hour, 4.64 tons of PE per year	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01319 OR - Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.
	1.42 pounds of sulfur dioxide (SO2) per hour, 6.24 tons of SO2 per year	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01319 OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	0.31 pound of volatile organic compounds (VOC), 1.34 tons of VOC per year	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01319 OR - Permittee shall burn only Refinery Fuel Gas (RFG), a mixture of landfill gas, natural gas and refinery process gas in these units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.
	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average	17-07 (A)	N	N	Y	N	N	N	N	N	N	N	Y	N	This source is exempt from CAM because it has no control equipment. OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.
	0.020 pound of PE per mmBtu of actual heat input	17-10 (B)(1)	N	N	Y	N	N	N	N	N	N	N	Y	N	This source is exempt from CAM because it has no control equipment. OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. There is M, R and Rp for the types of fuel burned other than the above.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Restriction on the hydrogen sulfide (H2S) burned in this unit. Limit is 230 mg/dscm (0.10 gr/dscf or 159 ppmv)	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>Other - 40 CFR 60.104(a)(1) of subpart J</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO2 emission limit as stated in 40 CFR 60 subpart J.</p> <p>Misc. - 40 CFR 60, Appendix F Procedure 1, section 5.2 refers to excessive audit inaccuracy in regards to the H2S CEM</p>
B055	Visible particulate emissions shall not exceed 10% opacity as a 6-minute average	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01421. This source is exempt from CAM because it has no control equipment.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units.</p> <p>M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. The hourly limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	3.29 pounds per hour carbon monoxide (CO) emissions and 14.43 tons per year CO emissions	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01421. This source is exempt from CAM because it has no control equipment.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units.</p> <p>M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. The hourly limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.</p>
	1.60 pounds per hour nitrogen oxides (NO _x) emissions and 7.01 tons per year NO _x emissions;	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01421. This source is exempt from CAM because it has no control equipment other than low-NO_x burners.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units.</p> <p>M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. The hourly limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	0.08 pound per hour particulate emissions (PE) and 0.35 ton per year PE	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01421. This source is exempt from CAM because it has no control equipment.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units.</p> <p>M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. The hourly limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.</p>
	0.30 pound per hour particulate matter less than 10 microns emissions (PM ₁₀) and 1.31 tons per year PM ₁₀ emissions	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01421. This source is exempt from CAM because it has no control equipment.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units.</p> <p>M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. The hourly limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	1.13 pound per hour sulfur dioxide (SO ₂) emissions and 4.95 tons per year SO ₂	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01421. This source is exempt from CAM because it has no control equipment.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified for H2S (CEM) which indirectly controls SO₂. . Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO₂ emission limit as stated in 40 CFR 60 subpart J.</p> <p>Misc. - 40 CFR 60, Appendix F Procedure 1, section 5.2 refers to excessive audit inaccuracy in regards to the H2S CEM</p>
	0.21 pound per hour volatile organic compound (VOC) emissions and 0.94 ton per year VOC emissions	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01421. This source is exempt from CAM because it has no control equipment.</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas, and/or natural gas in this units.</p> <p>M,R, and Rp - There is no M, R and Rp because the fuels burned are inherently clean fuels. The hourly limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Restriction on the hydrogen sulfide (H ₂ S) burned in this unit. Limit is 230 mg/dscm (0.10 gr/dscf or 159 ppmv)	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>BASIS: 40 CFR 60.104(a)(1) of subpart J</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified. Also the quality of the fuel burned must meet a sulfur content that allows the permittee to meet the SO₂ emission limit as stated in 40 CFR 60 subpart J.</p> <p>Misc. - 40 CFR 60, Appendix F Procedure 1, section 5.2 refers to excessive audit inaccuracy in regards to the H₂S CEM</p>
	400 ppm by volume on gaseous fuel on a dry basis corrected to 3 percent oxygen (3-run average for units less than 100 MMBTU/hr)	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: 40 CFR 63, subpart DDDDD- Boiler MACT which was rescinded in July of 2007. Permittee did not request removal of this emission limitation</p> <p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) (a mixture of landfill gas, natural gas and refinery process gas) and/or residual fuel oil in these units. Appropriate M, R Rp and ET have been specified in the Boiler MACT.</p>
F001	no visible particulate emissions (PE) except for 6 minutes during any 60-minute period	17-07 (B)(4)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: for paved roadways and parking areas</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust	17-07 (B), (B)(8)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	BASIS: for paved roadways and parking areas
	no visible particulate emissions except for 13 minutes during any 60-minute period	17-07 (B)(5)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	BASIS: for unpaved roadways and parking areas
	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust	17-07 (B), (B)(2)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	BASIS: for unpaved roadways and parking areas
J001 and J002	General Provisions of 40 CFR 63, subpart A	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	This source is exempt from CAM because it is subject to 40 CFR 63 subparts F, G and H. Other - 40 CFR 63 subpart A OR - Permittee is referred to the HON Equipment LDAR program for 40 CFR 63 subpart H in PART II of the permit.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	General Provisions and applicability of subparts G & H to F	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	Other - 40 CFR 63 subpart F OR- Permittee is referred to the HON Equipment LDAR program for 40 CFR 63 subpart H in PART II of the permit.
	Group 2 Transfer Rack requirements	N	Y	N	N	N	N	N	Y	N	N	N	N	N	Other - 40 CFR 63.126(c) of subpart G M, Rp & ET - the permittee shall maintain records as required in 40 CFR 63.130(f). No other provisions apply to Group 2 Transfer Racks.
	HON Equipment leak Program	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	Other - 40 CFR 63, subpart H; OR & Misc. - compliance with the HON equipment leak program shall be deemed compliance with 40 CFR 60, subpart VV. The permittee shall establish a LDAR program for HON sources according to the appropriate sections in PART II of this permit.
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	Basis - The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in Part III, source P801 of this permit for equipment subject to the LDAR program in OAC rule 3745-21-09(T) unless they elect to comply with 40 CFR 63 subpart H. The M, RK, Rp & Testing are in emissions unit P801 for the LDAR program.
	Loading of volatile photochemically reactive materials	21-07 (E)	N	Y	N	N	N	N	N	N	Y	N	N	N	ND - This source is exempt from 21-07(E) because the source does not load volatile photochemically reactive materials. Rp - If the company employs volatile photochemically reactive materials, then they must report to TDES within 45 days.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
J003, and J004	General Provisions of 40 CFR 63	N	Y	Y	Y	Y	N	N	Y	N	Y	N	N	N	<p>This source is exempt from CAM because they do not emit greater than 100 TPY VOC.</p> <p>Other - 40 CFR 63 subpart A</p> <p>ND - This source is exempt from 40 CFR 63 subparts A and CC because the loading racks do not load HAPs as defined by 40 CFR 63.641.</p> <p>OR - The permittee shall use submerged fill whenever the unit is operating, and not load any organic hazardous air pollutants as defined in 40 CFR 63 subpart CC or VOC's as defined by OAC rule 3745-21-01. Appropriate M, R and Rp have been specified for this restriction</p>
	Refinery MACT program	N	Y	Y	Y	Y	N	N	Y	N	Y	N	N	N	<p>Other - 40 CFR 63 subpart CC</p> <p>ND - This source is exempt from 40 CFR 63 subparts A and CC because the loading racks do not load HAPs as defined by 40 CFR 63.641.</p> <p>OR - The permittee shall use submerged fill whenever the unit is operating, and not load any organic hazardous air pollutants as defined in 40 CFR 63 subpart CC or VOC's as defined by OAC rule 3745-21-01. Appropriate M, R and Rp have been specified for this restriction</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	State LDAR equipment leak program	21-09 (T)	N	Y	Y	Y	N	N	Y	N	Y	N	N	N	<p>Basis - The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in Part III, source P801 of this permit for equipment subject to the LDAR program in OAC rule 3745-21-09(T) unless they elect to comply with 40 CFR 63 subpart H. The M, RK, Rp & Testing are in emissions unit P801 for the LDAR program.</p> <p>OR - The permittee shall use submerged fill whenever the unit is operating. and not load any organic hazardous air pollutants as defined in 40 CFR 63 subpart CC or VOC's as defined by OAC rule 3745-21-01. Appropriate M, R and Rp have been specified for this restriction</p>
	Loading of volatile photochemically reactive materials	21-07 (E)	N	Y	Y	Y	N	N	Y	N	Y	N	N	N	<p>ND - Sources J003 and J004 are exempt from 21-07(E) because the sources do not load volatile photochemically reactive materials. This regulation does not apply to source J005.</p> <p>OR - The permittee shall use submerged fill whenever the unit is operating. and not load any organic hazardous air pollutants as defined in 40 CFR 63 subpart CC or VOC's as defined by OAC rule 3745-21-01. Appropriate M, R and Rp have been specified for this restriction</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
J005	General Provisions of 40 CFR 63	N	Y	Y	Y	Y	N	N	Y	N	Y	N	N	N	<p>This source is exempt from CAM because it does not emit greater than 100 TPY VOC.</p> <p>Other - 40 CFR 63 subpart A</p> <p>ND - This source is exempt from 40 CFR 63 subparts A and CC because the loading racks do not load HAPs as defined by 40 CFR 63.641.</p> <p>OR - The permittee shall use submerged fill whenever the unit is operating, and not load any organic hazardous air pollutants as defined in 40 CFR 63 subpart CC or VOC's as defined by OAC rule 3745-21-01. Appropriate M, R and Rp have been specified for this restriction</p>
	Refinery MACT program	N	Y	Y	Y	Y	N	N	Y	N	Y	N	N	N	<p>Other - 40 CFR 63 subpart CC and 40 CFR 60 subpart VV</p> <p>ND - This source is exempt from 40 CFR 63 subparts A and CC because the loading racks do not load HAPs as defined by 40 CFR 63.641.</p> <p>OR - The permittee shall use submerged fill whenever the unit is operating, and not load any organic hazardous air pollutants as defined in 40 CFR 63 subpart CC or VOC's as defined by OAC rule 3745-21-01. Appropriate M, R and Rp have been specified for this restriction</p>
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>Basis - The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in Part III, source P801 of this permit for equipment subject to the LDAR program in OAC rule 3745-21-09(T) unless they elect to comply with 40 CFR 63 subpart H. The M, RK, Rp & Testing are in emissions unit P801 for the LDAR program.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
J006	1.60 tons per year volatile organic compounds (VOC) based upon a rolling 12-month summation of the monthly emissions	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: BAT limitation (OAC rule 3745 31-05(A)(3) PTI 04 - 0401447. This source is exempt from CAM because it does not emit greater than 100 TPY VOC. Recordkeeping of throughput and emissions are required.</p> <p>ET - Compliance with the provisions of Part II for equipment leaks, sections A.II, A.III.A.IV. and A.V. shall be considered adequate demonstration of compliance with these emissions limitations.</p>
	None	21-07 (E)(1)(c)	N	Y	N	N	N	N	N	N	N	N	N	N	<p>BASIS: Originally, when loading propylene/propane, the volatile photochemically reactive material is loaded under pressure when loaded in pressurized railroad tank cars. Under normal operating conditions, there are no vapors displaced from the tank cars during loading and, therefore, complies with this rule by design. When loading heavy oil, submerged fill is used and also complies with rule by design. NOTE: currently this rule is RESERVED as of 1/8/2008.</p>
	Refinery MACT LDAR program	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: - 40 CFR 63 subpart CC and 40 CFR 60 subpart VV. All M, R, RP and ET are in PART II of this permit.</p>
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in source P801 of this permit. The M, RK, RP & Testing are for the LDAR program established in source P801.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
P008	Flare shall be used to control emissions of HAP's resulting from malfunctions and pressure relief episodes, no visible emissions, except for periods not to exceed 5 minutes during any 2 consecutive hours.	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subpart A for flares.</p> <p>OR - The permittee shall comply with the flare requirements found in 40 CFR 63.11 of subpart A in Part II, section A.VI. 40 CFR 63.11(b) which include the following:</p> <ul style="list-style-type: none"> - Flares shall be monitored at all times - shall be steam assisted, air-assisted or non-assisted - flares shall be operated with no visible emissions, except for periods not to exceed a total of 5 min. during any 2 consecutive hours. - flares shall have a flame present at all times - the flare shall be operated with an exit velocity less than 18.3 m/sec - the exit velocity may exceed 18.3 m/sec if the net heating value of the combusted gas is greater than 1000 Btu/scf <p>M&R - The permittee maintains records for each relief that results in non-smokeless operation that exceeds 5 minutes in a 2-hour period.</p>
	Requirements of 40 CFR 63 subpart H	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	Other - 40 CFR 63 subpart H. The permittee shall comply with the flare requirements found in 40 CFR 63.11 of subpart A in Part II, section A.VI.
	Requirements of 40 CFR 61 subpart J	N	Y	Y	N	N	N	N	N	N	N	N	N	N	<p>Other - 40 CFR 61 subpart J.</p> <p>ND - Pursuant to 40 CFR 63.160(b)(2), because this flare is a control device for an emissions unit subject to 40 CFR 63, subpart H, the flare will only be required to comply with the provisions of 40 CFR 63, subpart H.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Requirements of 40 CFR 60 subpart A	N	Y	Y	N	N	N	N	N	N	N	N	N	N	Other - 40 CFR 60 subpart A. ND- The requirements established pursuant to this rule are equivalent to or less stringent than those established by 40 CFR 63.11 of subpart A.
	Requirements of OAC 3745-21-07(J)(3)	21-07 (J)(3)	N	Y	N	N	N	N	N	N	N	N	N	N	ND - The requirements established pursuant to this rule are equivalent to or less stringent than those established by 40 CFR 63.11 of subpart A.
P009	Nitrogen oxides (NO _x) emissions shall not exceed 19.34 pounds per hour and 84.72 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	N	N	N	N	N	N	N	N	Y	N	BASIS: PTI 04-01447, OAC rule 3745-31-05(A)(3) The hourly and annual emission limitations for CO, NO _x , PM, PM ₁₀ , and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.
	Filterable plus condensable particulate matter (PM) emissions shall not exceed 1.47 pounds per hour and 6.44 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	N	N	N	N	N	N	N	N	Y	N	BASIS: PTI 04-01447, OAC rule 3745-31-05(A)(3) The hourly and annual emission limitations for CO, NO _x , PM, PM ₁₀ , and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Volatile organic compounds (VOC) emissions shall not exceed 1.06 pounds per hour and 4.66 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	N	N	N	N	N	N	N	N	Y	N	BASIS: PTI 04-01447, OAC rule 3745-31-05(A)(3) The hourly and annual emission limitations for CO, NOx, PM, PM10, and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.
	CO emissions shall not exceed 16.25 pounds per hour, 0.082 pound per million Btu of heat input, and 71.16 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	N	N	N	N	N	N	N	N	Y	N	BASIS: PTI 04-01447, OAC rule 3745-31-10 through 20 The hourly and annual emission limitations for CO, NOx, PM, PM10, and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Particulate matter emissions less than 10 microns in diameter (PM10) shall not exceed 1.47 pounds per hour, 0.0074 pound per million Btu of heat input, and 6.44 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	N	N	N	N	N	N	N	N	Y	N	BASIS: PTI 04-01447, OAC rule 3745-31-10 through 20 The hourly and annual emission limitations for CO, NOx, PM, PM10, and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.
	Sulfur dioxide (SO ₂) emissions shall not exceed 5.33 pounds per hour and 23.35 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	Y	BASIS: PTI 04-01447, OAC rule 3745-31-05(A)(3) The hourly and annual emission limitations for SO ₂ are a direct result of the H ₂ S emissions which will be monitored by an H ₂ S CEM. ENF: The CEM is required by the Consent Decree entered March 14, 2006. The permittee shall comply with the NSPS Subpart J requirements for hydrocarbon flaring devices by December 31, 2009. Misc: Termination clause for the Consent Decree.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Restriction on the hydrogen sulfide (H ₂ S) burned in this unit. Limit is 230 mg/dscm (0.10 gr/dscf or 159 ppmv)	N	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	Y	<p>BASIS: 40 CFR 60.104(a)(1) of subpart J. This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subpart A for flares. NOTE: The permittee shall comply with the NSPS Subpart J requirements for hydrocarbon flaring devices by December 31, 2009.</p> <p>OR - The permittee shall operate and maintaining a flare gas recovery system to prevent continuous or routine combustion in this emissions unit. Use of a flare gas recovery system on a flare obviates the need to continuously monitor emissions as otherwise required by 40 CFR 60.105(a)(4).</p> <p>ENF: required by the Consent Decree entered March 14, 2006.</p> <p>Misc: Termination clause for the Consent Decree.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Flare shall be used to control hydrocarbon emissions resulting from process vents, malfunctions and emergency relief.	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>BASIS: 40 CFR 63 subpart A and CC. This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subpart A for flares.</p> <p>OR - The permittee shall comply with the flare requirements found in 40 CFR 63.11 of subpart A in Part II, section A.VI. 40 CFR 63.11(b) which include the following:</p> <ul style="list-style-type: none"> - Flares shall be monitored at all times - shall be steam assisted, air-assisted or non-assisted - flares shall be operated with no visible emissions, except for periods not to exceed a total of 5 min. during any 2 consecutive hours. - flares shall have a flame present at all times - the flare shall be operated with an exit velocity less than 18.3 m/sec - the exit velocity may exceed 18.3 m/sec if the net heating value of the combusted gas is greater than 1000 Btu/scf <p>M&R - The permittee maintains records for each relief that results in non-smokeless operation that exceeds 5 minutes in a 2-hour periods</p> <p>Misc: Termination clause for the Consent Decree.</p>
	Requiements of 40 CFR 40, subparts A, VV and GGG	N	Y	Y	N	N	N	N	N	N	N	N	N	N	<p>Other - 40 CFR Part 60, subparts A, VV and GGG.</p> <p>ND - The requirements established pursuant to this rule are equivalent to or less stringent than those established by 40 CFR 63.11 of subpart A. Pursuant to 40 CFR 63.641(p), because this flare is a control device for an emissions unit subject to 40 CFR 60, subparts A, VV and GGG, the flare will only be required to comply with the provisions of 40 CFR 63, subpart CC.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	n/a - requirements of OAC	17-11 (A)(2); 18-06 (E); 21-07 (J)(3); 21-07 (B); 21-08 (B);	N	Y	N	N	N	N	N	N	N	N	N	N	ND - The requirements established pursuant to this rule are equivalent to or less stringent than those established by 40 CFR 63.11 of subpart A.. NOTE: Currently, this rule states RESERVED for OAC rules 3745-21-07(B) and (J) and 21-08(B).
P011	The combined filterable particulate matter (PM) emissions from the FCCU (Emissions unit P011) and the CO Boilers (B046 and B047) shall not exceed 0.45 pound per thousand pounds of coke-burnoff	N	Y	N	N	Y	N	Y	Y	N	Y	N	Y	Y	<p>BASIS: OAC rule 3745-31-05(A)(3) from PT1 04-01447. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The monitoring, recordkeeping, reporting and testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.</p> <p>ENF: The Consent Decree entered March 14, 2006, requires meeting the emission limitation of 1 pound per 1000 pounds of coke-burnoff while operating the ESP units or 0.5 lb PM per 1000 pounds of coke burnoff if the ESP's are not operating. It becomes effective upon date of entry. The emission limitation stated in 31-05(A) is more stringent than the requirements of the C.D.</p> <p>MISC: This limit is more stringent than the requirements of 40 CFR 63, subpart UUU which has an emission limitation of 1 lb PM per 1000 lbs of coke-burnoff. The Misc. terms are referencing 40 CFR 63, subpart UUU tables.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined sulfur dioxide (SO ₂) emissions from P011, B046, and B047 shall not exceed 316 pounds per hour and 345.17 tons per year.	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01447.</p> <p>The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The monitoring, recordkeeping, reporting and testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011).</p> <p>OR: The combined emissions of SO₂ from P011,B046 and B047 shall not exceed 345.17 tons per year based upon a rolling, 365 day summation of the daily emissions.</p>
	The combined volatile organic compound (VOC) emissions from the FCCU (Emissions Unit P011) and the CO Boilers (Emissions Units B046 and B047) shall not exceed 3.67 pounds per hour	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01447.</p> <p>The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The monitoring, recordkeeping, reporting and testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011).</p> <p>OR: The combined emissions of VOC from P011,B046 and B047 shall not exceed 16.07 tons per year based upon a rolling, 365 day summation of the daily emissions.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined sulfuric acid (H ₂ SO ₄) mist emissions from the FCCU (P011) and CO Boilers (B046 and B047) shall not exceed 10 ppmvd and 215.84 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	N	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01447.</p> <p>The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The monitoring, recordkeeping, reporting and testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011).</p> <p>M, R, & Rpt: The emission limits were a manufacturer's guarantee so no M, Rk, Rpt were required. The Administrator has the option of requesting a stack test for verification.</p>
	The combined nitrogen oxides (NOx) emissions from P011, B046 and B047 shall not exceed 198.51 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) from PTI 04-01447.</p> <p>The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The monitoring, recordkeeping, reporting and testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011).</p> <p>OR: The combined emissions of NOx from P011, B046 and B047 shall not exceed 198.51 tons per year based upon a rolling, 365 day summation of the daily emissions.</p> <p>ENF: the Consent Decree entered March 14, 2006, requires the permittee to install and operate an SCR system to control NOx by 12/31/2009.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined filterable PM emissions from P011, B046 and B047 shall not exceed 165.96 tons per year	N	Y	N	N	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) from PTI 04-01447.</p> <p>The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The monitoring, recordkeeping, reporting and testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011).</p> <p>M, R, Rpt: The annual emission limitations for PM were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.</p>
	The combined SO ₂ emissions from P011, B046 and B047 shall not exceed 345.71 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) from PTI 04-01447.</p> <p>The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The monitoring, recordkeeping, reporting and testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011).</p> <p>OR: The combined emissions of SO₂ from P011, B046 and B047 shall not exceed 345.71 tons per year based upon a rolling, 365 day summation of the daily emissions.</p> <p>ENF: the Consent Decree entered March 14, 2006, requires the permittee to install and operate a wet gas scrubber to control SO₂ and PM by 12/31/2009.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined VOC emissions from the FCCU (Emissions Unit P011) and the CO Boilers (Emissions Units B046 and B047) shall not exceed 16.07 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	N	N	N	N	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) from PTI 04-01447.</p> <p>The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The monitoring, recordkeeping, reporting and testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011).</p> <p>OR: The combined emissions of VOC from P011, B046 and B047 shall not exceed 16.07 tons per year based upon a rolling, 365 day summation of the daily emissions.</p> <p>M&R: The annual emission limitation for VOC was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring and record keeping requirements to ensure compliance with these limitations, however, tracking the information on a daily basis implies recordkeeping.</p>
	Visible emissions shall not exceed 20% opacity, as a 6 minute average unless otherwise specified by the rule	17-07(A)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: PTI 04-01447</p> <p>SUN currently uses an opacity COM. After the expansion takes place, SUN wants to use alternative monitoring in lieu of maintaining the COM. The plan was approved by USEPA (letter dated Nov. 2, 2006) to continuously monitor and record the pressure of the water supplied to the discharge of the recirculation pumps supplying water to the Agglo-Filtering modules. Pressure below the specified range will indicate a decrease in the filtering module efficiency. SUN will also monitor and record the flue gas pressure drop across the Agglo-Filtering module.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined emissions from P011, B046 and B047 shall not exceed 3.00 pounds of sulfur dioxide (SO ₂) per thousand pounds of fresh feed	18-54 (O)(3)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	Note - The permittee shall use the combined SO2 limit for sources P011, B046 and B047, when operating the CO boilers as a control device for the FCC unit. M - Monitoring and recordkeeping of the daily (Monday - Friday) FCC fresh feed, density and sulfur content. Recordkeeping of the daily SO2 emission rate.
	Requirements of 40 CFR 60, subparts A and J	N	Y	Y	N	N	N	Y	N	N	N	N	N	N	BASIS: PTI 04-01447 ENF: The Consent Decree requires the FCCU to be in compliance with NSPS subparts A and J for PM (March 14, 2006); SO2 (by 12/31/09); CO (March 14, 2006); and opacity (by 12/31/2009). ND: The opacity limitation specified by this rule is less stringent than the limitation specified by OAC rule 3745-17-07(A). The SO ₂ emission limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(C). The PM limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3). The ppm CO emission limitation specified by this rule is equivalent to the emission limitation established pursuant to OAC rules 3745-31-10 through 20.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined CO emissions from P011, B046 and B047 shall be reduced by a minimum of 99% control efficiency and shall not exceed 500 parts per million by volume dry (ppmvd) at 0% oxygen as a 1-hour average, or 180 ppmvd at 0% oxygen as a rolling, 365-day average, or 1,087.28 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	Y	<p>BASIS: OAC rule 3745-31-05(C); also 40 CFR 63, subpart UUU.</p> <p>OR: The combined emissions of CO from P011, B046 and B047 shall not exceed 1087.28 tons per year based upon a rolling, 365 day summation of the daily emissions.</p> <p>ENF: The Consent Decree entered March 14, 2006, requires meeting the 500 ppmv at 0% oxygen as a rolling 365-day average, upon date of entry.</p> <p>M, R, Rp & ET: SUN has a CO CEM installed with appropriate M, R, RP & ET.</p> <p>MISC: This limit is also a requirement of 40 CFR 63, subpart UUU as an emission limitation from the catalyst regenerator vent or CO boiler serving the FCCU. The Misc. terms are referencing 40 CFR 63, subpart UUU tables.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The combined PM ₁₀ emissions from P011, B046 and B047 shall be controlled by a minimum of 95% and shall not exceed 0.90 pound per thousand pounds of coke-burnoff or 331.92 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C); also 40 CFR 63, subpart UUU.</p> <p>OR: The combined emissions of PM10 from P011, B046 and B047 shall not exceed 332.95 tons per year based upon a rolling, 365 day summation of the daily emissions.</p> <p>M, R, Rp & ET: SUN will install a wet gas scrubber to limit the emissions of PM10 with appropriate M, R, Rp and ET.</p>
	Beginning at initial startup after the FCCU expansion, the permittee shall operate its FCCU so that the combined NOx emissions from P011, B046 and B047 do not exceed 20 ppmvd based on a 365-day rolling average or 40 ppmvd based on a 7-day rolling average, each at 0% oxygen	N	Y	N	N	Y	N	Y	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) and Consent Decree entered March 14, 2006.</p> <p>ENF: The Consent Decree requires meeting this emission limitation from the SCR outlet.</p> <p>M, R, Rp & ET - NOx CEM will be installed during the expansion and will be used to calculate this emissions limitation. The NOx CEM has appropriate M, R, Rp & ET.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Beginning at startup after the FCCU expansion and by no later than December 31, 2009, the combined SO ₂ emissions from the P011, B046 and B047 shall not exceed 25 ppmvd based on a 365-day rolling average or 50 ppmvd based on a 7-day rolling average, each at 0% oxygen	N	Y	N	N	Y	N	Y	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) and Consent Decree entered March 14, 2006.</p> <p>ENF: The Consent Decree requires meeting this emission limitation from the wet gas scrubber outlet, no later than 12/31/2009.</p> <p>M, R, Rp & ET - Also, a SO₂ CEM will be installed during the expansion and will be used to calculate this emissions limitation. The NO_x CEM has appropriate M, R, Rp & ET.</p>
	Ammonia slip emissions shall not exceed 5 ppmv.	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(C) and Consent Decree entered March 14, 2006.</p> <p>M, R, Rp & ET - This is one of the parameter of monitoring of the ammonia slip from the SCR for NO_x control.</p>
	Use BAT for OC and CO	21-07 (B) and 21-08 (B)	N	N	N	N	N	N	N	N	N	N	N	N	<p>BASIS: OAC rules 3745-21-07(B) and 21-08(B) NOTE: Both of these rules are stated as RESERVED in the SIP.</p> <p>On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revisions to OAC rules 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	SIP PM and CO limit	17-11 (B)(1) and 21-08 (E)	N	N	N	N	N	N	N	N	N	N	N	N	BASIS: The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
	Refinery LDAR program	21-09 (T)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	BASIS: This unit is a part of the facility-wide LDAR program and must follow the M, R, Rp and ET as stated in emission unit P801 of this permit.
	Requirements of 40 CFR 63 subpart UUU which include metal HAP emission limitations; organic HAP emission limitations and work practice standards for the catalytic cracking unit and bypass lines	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>BASIS - 40 CFR 63 subpart UUU. The permittee must meet the metal Hap emissions chosen from one of the four options stated in 40 CFR 63.1564(a) and Table 1; the organic HAP emission limitations as stated in 40 CFR 63.1565(a) and Tables 8 and 9; the General Provisions of subpart A as stated in Table 44 and meet the work practice standards for bypass lines as stated in 40 CFR 63.1569(a) and Table 36. The emission limitations are stated above.</p> <p>OR - the permittee must meet the operating limits that apply to this unit according to Table 2 for Metal HAP emissions and the operating limits that apply to this unit according to Table 9 for organic HAP emissions.</p> <p>Misc. - the applicable tables from 40 CFR 63 subpart UUU.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
P012	The Consent Decree requires the permittee to meet NSPS, subparts A & J by 12/31/09.	N	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	Y	<p>BASIS:OAC rule 3745-31-05(C) from PTI 04-01447.</p> <p>ENF: Effective March 14, 2006, this emissions unit shall be an affected facility under NSPS, 40 CFR Part 60, Subparts A and J. Sections A.II.1 through 4 set forth a compliance plan and interim compliance requirements for this emissions unit to comply with 40 CFR Part 60, Subpart J. The permittee shall comply with the requirements of 40 CFR Part 60, Subparts A and J applicable to this emissions unit by no later than December 31, 2009.</p> <p>OR: Lists the Compliance Interim Controls, the NSPS Optimization Study, the Sulfur Pit Emissions and the Good Operation & Maintenance required by the Consent Decree entered March 14, 2006.</p> <p>M, R, Rp & ET: The permittee currently maintains an SO2 CEM along with a quality assurance/quality control plan.</p> <p>Misc: The clause for termination of the Consent Decree is stated.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The permittee shall not discharge or cause the discharge of any gases into the atmosphere from any Claus sulfur recovery plant containing in excess of 250 ppm by volume (dry basis) of sulfur dioxide (SO ₂) at zero percent excess air as a rolling, 12-hour average. The permittee shall comply with this emission limitation by no later than December 31, 2009	N	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	Y	<p>BASIS: 40 CFR 60, subparts A and J. The Consent Decree requires the permittee to meet NSPS, subparts A & J.</p> <p>ENF: Effective March 14, 2006, this emissions unit shall be an affected facility under NSPS, 40 CFR Part 60, Subparts A and J. Sections A.II.1 through 4 set forth a compliance plan and interim compliance requirements for this emissions unit to comply with 40 CFR Part 60, Subpart J. The permittee shall comply with the requirements of 40 CFR Part 60, Subparts A and J applicable to this emissions unit by no later than December 31, 2009</p> <p>OR: Lists the Compliance Interim Controls, the NSPS Optimization Study, the Sulfur Pit Emissions and the Good Operation & Maintenance required by the Consent Decree entered March 14, 2006.</p> <p>Misc: The clause for termination of the Consent Decree is stated.</p>
	0.07 lb SO ₂ per lb sulfur processed	18-54 (O)(9)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>This source is exempt from CAM because it is subject to 40 CFR 63 subpart UUU.</p> <p>The bypassing of any refinery fuel gases from the sulfur recovery unit (SRU) to the flare system is a violation of the SO₂ emission rate.</p>
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in source P801 of this permit.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Requirements of 40 CFR 63 subpart UUU which include HAP emission limitations; and work practice standards for the SRU and bypass lines	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>BASIS: 40 CFR 63, subpart UUU The permittee must meet the HAP emissions chosen from one of the two options stated in 40 CFR 63.1568(a) and Table 29; the General Provisions of subpart A as stated in Table 44; the notification requirements of 40 CFR 63.1574 and meet the work practice standards for bypass lines as stated in 40 CFR 63.1569(a) and Table 36.</p> <p>OR - the permittee must meet the operating limits that apply to this unit according to Table 30 for HAP emissions and prepare an operation, maintenance and monitoring plan for bypass lines according to 40 CFR 63.1574(f).</p> <p>Misc. - the applicable tables from 40 CFR 63 subpart UUU.</p>
P013	HON Equipment leak Program	N	Y	Y	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>This source is exempt from CAM because it is subject to 40 CFR 63 subparts A, F and H.</p> <p>BASIS: - 40 CFR 63, subpart H - 40 CFR 63 subpart F - 40 CFR 63 subpart A</p> <p>The permittee shall establish a LDAR program for HON sources according to the applicable sections in PART II of this permit.</p> <p>ND - 40 CFR 61 subpart V - 40 CFR 61 subpart J - 40 CFR 61 subpart A</p> <p>40 CFR 63.160(b) states that sources subject to the provisions of 40 CFR parts 60 and 61 are required to only comply with the provisions of 40 CFR 63 subpart H.</p> <p>OR - The permittee shall establish a LDAR program for HAP sources according to the appropriate sections in PART II of this permit</p> <p>Misc. - General Requirements from 40 CFR 63 subparts A and F pertaining to start-ups, shutdowns and malfunctions.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR & M - The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in Part III, source P801 of this permit for equipment leaks subject to OAC rule 3745-21-09(T).
	negligible emissions	N	Y	N	N	N	N	N	N	N	Y	N	N	N	BASIS: OAC rule 3745-31-05(A)(3) - no limits were established in PTI 04-095 under OAC rule 3745-31-05. The requirements pursuant to this rule are equivalent to the requirements of OAC rule 3745-21-09(T).
P014	The transfer rack shall be equipped with a vapor collection system and control device (thermal oxidizer)	N	Y	Y	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>This source is exempt from CAM because it is subject to 40 CFR 63 subparts A, F, G and H.</p> <p>BASIS - 40 CFR 63 subpart G - 40 CFR 63 subpart F - 40 CFR 63 subpart A</p> <p>ND - 40 CFR 61 subpart BB - a group 1 transfer rack subject to this subpart is required to comply only with 40 CFR 63 subpart G.</p> <p>OR - the transfer rack shall use a control device to reduce emissions of HAPs by 98 weight percent or have an exit concentration of 20 ppmv. Loading from the rack shall be into tanks or railcars with a current certification to demonstrate that the units are vapor-tight. Appropriate M, R, Rp and ET have been specified for the OR listed in this permit.</p> <p>M - Monitoring of the thermal oxidizer temperature; inspect and monitor the vapor collection system and keep appropriate records as required by 40 CFR 63, subpart G.</p> <p>Misc - The permittee may request to use a control device other than those listed in Table 7 of 40 CFR 63 subpart G.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	HON Equipment leak Program	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	BASIS - 40 CFR 63, subpart H; OR & Misc. - compliance with the HON equipment leak program shall be deemed compliance with 40 CFR 60, subpart VV. The permittee shall establish a LDAR program for HON sources according to the appropriate sections in PART II of this permit.
	BAT requirements for PTI 04-478. Use submerged fill whenever the unit is operating	N	Y	N	Y	N	N	N	N	N	N	N	N	N	BASIS - OAC rule 3745-31-05 and 21-07(E) The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(E); 40 CFR 61, subpart J and are less stringent than 40 CFR Part 63, subparts G & H. NOTE: OAC rule 3745-21-07(E) is RESERVED as of 1/8/08. OR - Use of submerged fill.
P016	Requirements for a maritime tank vessel loading operation	N	Y	Y	N	Y	N	N	Y	N	Y	N	N	Y	This source is exempt from CAM as it is subject to 40 CFR 63 subparts F, G, and H. Other - 40 CFR 63 subparts F, G, and H ND - 40 CFR 63 subpart Y and 40 CFR 63, subpart CC The permittee is prohibited from loading material that would be subject to 40 CFR 63, subparts CC and Y. ND - 40 CFR Part 61, subparts A and J Pursuant to 40 CFR 63.160, this emissions unit is required to comply only with the provisions of 40 CFR 63, subpart H while loading benzene or HAPs. M - Maintains annual records of the materials loaded. Misc - If the permittee resumes loading of benzene at this unit, then the permittee shall comply with the applicable portions of 40 CFR 63, subparts F and H, and 40 CFR 63.126(b)(1) of subpart G.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	BAT from PTI	N	Y	N	N	N	N	N	N	N	N	N	N	N	<p>BASIS: OAC rule 3745-31-05(A)(3) (PTI 04-095 issued May 17, 1977)</p> <p>M, R, Rp & ET: The PTI only required compliance with applicable law at the time the permit was issued.</p>
P017	Refinery MACT wastewater requirements for all wastewater streams, cooling towers; wastewater tanks and storm water systems within the refinery.	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>NOTE: see the relationship between Sunoco, Inc.; TWO LLC(formerly US Filter) and Process Solutions (formerly USFilter Scaltech) in the first section of the Statement of Basis.</p> <p>This source is exempt from CAM as it is subject to 40 CFR 63 subparts A and CC.</p> <p>BASIS - 40 CFR 63 subpart CC - 40 CFR 63 subpart A, General Provisions The permittee subject to the wastewater provisions of 40 CFR 63 subpart CC shall comply with the requirements of 40 CFR 61.340 through 61.355 of subpart FF. Notification is required when a Group 2 wastewater stream changes to a Group 1 stream.</p> <p>OR - the benzene containing wastewater streams must remove or destroy the benzene in the streams as specified in 40 CFR 61.348 - wastewater tanks shall install operate and maintain a fixed roof and closed vent system that routes vapors to a vapor collection agency. - containers must be covered and use submerged fill when the waste is transferred Appropriate M, R, and Rp have been specified for the OR listed in this permit.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	volatile organic compounds (VOC) emissions shall not exceed 91.19 tons per year	N	Y	N	N	N	N	N	N	N	N	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-01447. This is a facility-wide emission limit for VOC leaks from all the emissions from emissions unit subject to 40 CFR 63, subpart CC; 40 CFR 61, subpart FF and 40 CFR 60, subpart QQQ.</p> <p>Modifications of the equipment at this facility shall not require a PTI or TV modification that results solely in increases in fugitive equipment leaks unless and until the calculated facility-wide potential to emit (PTE) for fugitive emissions equals or exceeds the allowable fugitive emission limit.</p> <p>M, R, Rp - There are no specific M, R or Rp for this emission limit but there in regards to 40 CFR 63, subpart CC; 40 CFR 61, subpart FF and 40 CFR 60, subpart QQQ which is what this emission limit is associated with.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	enhanced BWON program	N	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	Y	<p>BASIS: OAC rule 3745-31-10 through 20, from PTI 04-01447.</p> <p>NOTE: The permittee shall consider only those fugitive emissions from the equipment installed or modified under PTI 04-01447 (i.e., not the facility-wide fugitive equipment limit) when determining applicability under OAC rule 3745-31-11 through OAC rule 3745-31-20.</p> <p>ENF:An enhanced Benzene Waste Operations NESHAP (BWON) program is required by the consent decree as entered on March 14, 2006. The requirements established by the consent decree are as stringent or more stringent than the requirements of 40 CFR 63, subpart CC and OAC rule 3745-21-09(T).</p> <p>OR: As of Date of Entry (March 14, 2006) of the Consent Decree, Sunoco shall comply with the compliance option set forth at 40 CFR 61.342(c), utilizing the exemptions set forth in 40 CFR 61.342(c)(2) and (c)(3)(ii) (hereinafter referred to as the "2 Mg Compliance Option"). Also, commencing on Date of Entry of the Consent Decree and continuing through the Date of Termination, to the extent applicable, Sunoco shall not change the compliance status of any Covered Refinery from the 6 BQ Compliance Option to the 2 Mg Compliance Option.</p> <p>M,R,Rp & ET: The Consent Decree requires Sunoco to complete a review and verification of the TAB and the BWON compliance status and complete a review in two phases. Sunoco was also required to add a secondary carbon canister to each single carbon canister system on an existing unit or installation to convert the single canister system to a dual carbon canister system with the dual canisters operated in series. The Consent Decree also requires Sunoco to perform laboratory audits, review benzene spills and have annual reviews of the wastewater streams to make sure they're all included.</p> <p>Misc: term for termination of the Consent Decree.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Group 2 wastewater streams not subject to 40 CFR 63, subpart CC.	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	BASIS: NSPS, 40 CFR 60, subpart QQQ. NOTE: Those wastewater streams considered as Group 2 that are not subject to 40 CFR 63, subpart CC and 40 CFR 61, subpart FF are still subject to NSPS subpart QQQ such as individual drain systems, oil-water separator.
	Benzene wastewater requirements	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	BASIS - 40 CFR 61 subpart FF Subject to subpart FF through 40 CFR 63 subpart CC. OR - see above for 40 CFR 63, subpart CC
	Refinery MACT LDAR program	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	BASIS - 40 CFR 63 subpart CC and 40 CFR 60 subpart VV. All M, R, RP and ET are in emissions unit P801 of this permit.
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR: The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in A.I.2, A.II, A.III., A.IV., and A.V. of emissions unit P801 of this permit.
P026	BAT with negligible emissions	N	Y	N	N	N	N	N	N	N	N	N	N	N	BASIS - OAC rule 3745-31-05(A)(3), PTI 04-00415. NOTE: this was an insignificant source and is now non-insignificant source. M, R, Rp & ET - all emissions associated with equipment leaks along with the associated M, R, Rp and ET are found in emissions unit P801.
	Refinery MACT LDAR program	N	Y	N	N	N	N	N	N	N	N	N	N	N	BASIS - 40 CFR 63 subparts A and CC. M, R, Rp & ET - All M, R, RP and ET are in emissions unit P801 of this permit.
	State LDAR equipment leak program	21-09 (T)	N	N	N	N	N	N	N	N	N	N	N	N	M, R, Rp & ET - All M, R, RP and ET are in emissions unit P801 of this permit.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
P031	General Provisions of 40 CFR 63	N	Y	N	Y	N	N	N	N	N	N	N	N	N	This source is exempt from CAM because it is subject to 40 CFR 63 subparts A, F, G and H. BASIS - 40 CFR 63 subpart A OR - Permittee is referred to the Equipment LDAR program for 40 CFR 63 subpart H in PART II of the permit.
	General Provisions and applicability of subparts G & H to F	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	Other - 40 CFR 63 subpart F OR -The permittee shall establish a HON LDAR program for HAP sources according to the appropriate section in PART II of this permit.
	Group 2 Transfer Rack requirements	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	Other - 40 CFR 63.126(c) of subpart G, the permittee shall maintain records as required in 40 CFR 63.130(f). No other provisions apply to Group 2 Transfer Racks.
	HON Equipment leak Program	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	Other and OR- 40 CFR 63, subpart H Compliance with the HON equipment leak program shall deem compliance with 40 CFR 60, subpart VV. OR -The permittee shall establish a HON LDAR program for HAP sources according to the appropriate section in PART II of this permit.
	none	21-07 (E)	N	Y	N	N	N	N	N	N	N	N	N	N	ND - This emissions unit is exempt from OAC rule 3745-21-07(E) because the emissions unit is not loading any volatile photochemically reactive materials as defined in OAC rule 3745-21-01(C)(7). The permittee shall not load any volatile photochemically reactive materials as defined in OAC rule 3745-21-01(C)(7) in this emissions unit. NOTE: Currently, this rule is now RESERVED
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR & M - The permittee shall establish an LDAR program for VOC sources according to the appropriate sections in A.I.2, A.II, A.III., A.IV., and A.V. of emissions unit P801 of this permit unless they want to comply with 40 CFR 63 subpart H.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	23.96 tons per year VOC	N	31-05 (A)(3)	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - OAC rule 3745-31-05(A)(3) - PTI 04-849, The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-21-07(E) and 3745-21-09(T).</p> <p>M - The permittee shall maintain documentation showing whether or not each material loaded is a volatile photochemically reactive material as defined in OAC rule 3745-21-01(C)(7).</p> <p>ET - Compliance with the provisions of Part II for equipment leaks, sections A.II, A.III.A.IV. and A.V. shall be considered adequate demonstration of compliance with these emissions limitations.</p>
P032	negligible emissions	N	31-05 (A)(3)	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3), PTI 04-0860. The emissions from this source are fugitive and are included in the facility-wide emission limit stated in emissions unit P801 (the facility-wide Leak Detection And Repair (LDAR) program).</p> <p>M, R, Rp & ET are in emissions unit P801 for the associated LDAR program.</p>
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>OR & M - The permittee shall establish an LDAR program for VOC sources according to the appropriate sections in A.I.2, A.II, A.III., A.IV., and A.V. of emissions unit P801 of this permit unless they want to comply with 40 CFR 63 subpart H.</p>
	Compressors	N	Y	N	N	Y	N	N	N	N	N	N	N	N	<p>BASIS: 40 CFR 60, subparts A and GGG. A compressor is an affected facility.</p> <p>M, R, Rp and ET: 40 CFR 60 subpart GGG requires the permittee to comply with 40 CFR 60, subpart VV. The M, R, Rp and ET are found in emissions unit P801 for subpart VV.</p>
P033	38.04 tpy of volatile organic compounds (VOC)	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: OAC rule 3745-31-05(A)(3) from PTI 04-1038.</p> <p>OR: The permittee shall use submerged fill whenever this emissions unit is in operation.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - The permittee shall establish an LDAR program for VOC sources according to the appropriate sections in A.I.2, A.II, A.III., A.IV., and A.V. of emissions unit P801 of this permit.</p> <p>M, R, Rp & Et -The LDAR program requires M, R, Rp and ET but the terms for the LDAR program are in emissions unit P801.</p>
	none	21-07(E)	N	Y	N	N	N	N	N	N	N	N	N	N	<p>ND - This emissions unit is exempt from OAC rule 3745-21-07(E) because the emissions unit is not loading any volatile photochemically reactive materials as defined in OAC rule 3745-21-01(C)(7). The permittee shall not load any volatile photochemically reactive materials as defined in OAC rule 3745-21-01(C)(7) in this emissions unit.</p> <p>NOTE: Currently, this rule is now RESERVED</p>
P035 P036	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in A.I.2, A.II, A.III., A.IV., and A.V. source P801 of this permit.</p> <p>All M, R, Rp & ET terms are for 21-09(T) are found in source P801.</p>
	20% opacity, as a 6 minute average, except as provided by the rule	17-07 (A)(1)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>OR - Permittee shall burn only Refinery Fuel Gas (RFG), landfill gas and/or natural gas in these units. Appropriate M, R Rp and ET have been specified</p>
	0.62 lb. PE/mmBtu of actual heat input	17-11 (B)(5) (b)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>OR - Permittee shall burn only Refinery Fuel Gas (RFG) in these units. Appropriate M, R Rp and ET have been specified</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	0.5 lb. SO2/mmBtu of actual heat input	18-06 (G)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	OR - Permittee shall burn only Refinery Fuel Gas (RFG) in these units. The quality of the refinery fuel gas burned in this emissions unit shall meet on an "as burned" basis a sulfur content which is sufficient to comply with the allowable SO ₂ emission limitation of 0.5 pound of SO ₂ per million Btu of actual heat input. Appropriate M, R Rp and ET have been specified for refinery fuel gas.
P037 P038	Refinery MACT LDAR program	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	Thess sources are exempt from CAM because they are subject to the Refinery MACT and 40 CFR 63, subpart UUU BASIS - 40 CFR 63 subpart CC and subpart A. The facility-wide MACT LDAR program along with all M, R, RP and ET are in emissions unit P801 of this permit. OR - The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in A.I.2, A.II, A.III., A.IV., and A.V.in P801 of this permit.
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in A.I.2, A.II, A.III., A.IV., and A.V. in P801 of this permit

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	<p>Requirements of 40 CFR 63 subpart UUU which include inorganic HAP emission limitations; organic HAP emission limitations and work practice standards for catalytic reforming unit and bypass lines.</p> <p>For the semi-regenerative catalytic reforming unit process vent during coke burn-off and catalyst rejuvenation, the permittee must reduce uncontrolled emissions of hydrogen chloride (HCl) by 92 percent by weight or to a concentration of 30 ppmv (dry basis), corrected to 3 percent oxygen.</p>	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>BASIS - 40 CFR 63 subpart UUU. The permittee must meet the applicable emission limitations specified in 40 CFR 63.1566(a)(1) as stated in Table 15; in 40 CFR 63.1567(a)(1) as stated in Table 16; in 40 CFR 63.1569(a)(1) as stated in Table 36 and the General Provisions of subpart A as stated in Table 44 and meet the work practice standards for bypass lines as stated in 40 CFR 63.1569(a) and Table 36.</p> <p>OR - the permittee must meet the applicable requirements for organic HAP emissions from Tables 15 and 16 and for inorganic HAP emissions from table 23.</p> <p>M - The permittee shall prepare an operation, maintenance and monitoring plan according to 40 CFR 63.1574(f) and maintain a continuous monitoring system according to 40 CFR 63.1572 and Table 42 of subpart UUU.</p> <p>Misc. - Contains the applicable tables from 40 CFR 63 subpart UUU.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
P039	4.41 tons per year of volatile organic compounds (VOC)	N	Y	N	N	N	N	N	N	N	N	N	Y	N	<p>BASIS - OAC rule 3745-31-05(A)(3) and PTI 04-01319.</p> <p>M,R, RP & ET - The potential to emit (PTE) fugitive emissions are based upon the sum of PTE fugitive emissions from components in each emissions unit at the facility. These components include all valves, pumps, pressure relief valves, connectors, open-ended lines and sampling connections in regulated service at the facility. The fugitive emissions are calculated using the facility component count, component service type, and the petroleum industry screening value correlations.</p> <p>Since the VOC's are from equipment leaks, the M, R, Rp are in the LDAR terms found in P801.</p>
	Refinery MACT LDAR program	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>Thess sources are exempt from CAM because they are subject to the Refinery MACT, subpart CC</p> <p>BASIS - 40 CFR 63 subpart CC and subpart A. The facility-wide MACT LDAR program along with all M, R, RP and ET are in emissions unit P801 of this permit.</p> <p>OR - The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in A.I.2, A.II, A.III., A.IV., and A.V.in P801 of this permit.</p> <p>MISC - terms from 40 CFR 63, subpart A</p>
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in A.I.2, A.II, A.III., A.IV., and A.V. in P801 of this permit</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	VOC LDAR program	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - 40 CFR 60, subpart GGG</p> <p>OR - The provisions of 40 CFR part 60 subpart GGG applies to petroleum refinery equipment leaks of VOC from a compressors, valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service by complying with the VOC requirements of 40 CFR Part 60, Subpart VV which are found in source P801.</p> <p>Since the VOC's are from equipment leaks, the M, R, Rp are in the LDAR terms found in P801.</p>
	wastewater, controlled by equipment design and operating & maintenance programs	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>BASIS - 40 CFR 63 subpart CC - 40 CFR 63 subpart A, General Provisions - 40 CFR 61, subpart FF</p> <p>OR - The permittee subject to the wastewater provisions of 40 CFR 63 subpart CC shall comply with the requirements of 40 CFR 61.340 through 61.355 of subpart FF. Notification is required when a Group 2 wastewater stream changes to a Group 1 stream.</p> <p>Since the VOC's are from wastewater, the M, R, Rp are in the facility-wide BWON program found in source P017.</p> <p>MISC - terms from 40 CFR 63, subpart A</p>
	Group 2 wastewater streams not subject to 40 CFR 63, subpart CC.	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS: NSPS, 40 CFR 60, subpart QQQ.</p> <p>NOTE: Those wastewater streams considered as Group 2 that are not subject to 40 CFR 63, subpart CC and 40 CFR 61, subpart FF are still subject to NSPS subpart QQQ such as individual drain systems, oil-water separator.</p> <p>OR - Since the VOC's are from wastewater, the M, R, Rp are in the facility-wide wastewater program found in source P017.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
P040	Particulate emissions (PE) shall not exceed 1.15 pounds per hour and 5.03 tons per year as a rolling 12-month summation of the monthly emissions	N	Y	Y	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - OAC rule 3745-31-05(A)(3) and PTI 04-01447.</p> <p>OR - The permittee shall operate the drift eliminator at all times when the emissions unit is in operation.</p> <p>ND- OAC rule 3745-17-11(B). The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
	Volatile organic compounds (VOC) shall not exceed 0.86 pounds per hour and 3.77 tons per year	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	<p>BASIS - OAC rule 3745-31-05(A)(3) and PTI 04-01447.</p> <p>OR - The permittee shall operate the drift eliminator at all times when the emissions unit is in operation.</p> <p>M, R, & RP - The emission limit is based on maximum PTE using the maximum flow rate through the unit, therefore, it was not necessary to develop M, R, & Rp requirements.</p>
	Visible emissions from this emissions unit shall not exceed 10% opacity as a six-minute average. It shall not be deemed a violation of this rule where the presence of uncombined water is the only reason for failure of a stack emission to meet the requirements of this rule	N	Y	Y	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - OAC rule 3745-31-05(A)(3) and PTI 04-01447.</p> <p>OR - The permittee shall operate the drift eliminator at all times when the emissions unit is in operation.</p> <p>ND- OAC rule 3745-17-07(A). The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Particulate matter less than 10 microns (PM ₁₀) shall not exceed 1.15 pounds per hour and 5.03 tons per year as a rolling 12-month summation of the monthly emissions	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - OAC rule 3745-31-10 through 20 and PTI 04-01447.</p> <p>NOTE: The drift eliminator shall provide 75% reduction in PM₁₀.</p> <p>OR - The permittee shall operate the drift eliminator at all times when the emissions unit is in operation.</p>
	MACT for cooling towers	N	Y	Y	N	N	N	N	N	N	N	N	N	N	<p>BASIS - 40 CFR 63, subpart Q and PTI 04-01447</p> <p>ND - The permittee does not use chromium based water treatment chemicals, therefore, this MACT does not apply.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
P041	Hydrogen sulfide (H ₂ S) emissions shall not exceed 10 parts per million by volume dry (ppmvd) and 1.23 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	N	N	Y	N	N	N	N	Y	Y	<p>BASIS: OAC rule 3745-31-05(A)(3) and PTI 04-01447. This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subparts A, CC, UUU and NSPS subparts A and J. NOTE: The permittee shall comply with the NSPS Subpart J requirements for this sulfur recover unit by December 31, 2009.</p> <p>OR - The permittee shall burn only natural gas or refinery fuel gas in this emissions unit. The permittee is to route all sulfur pit emissions so that they are eliminated, controlled or monitored as part of the SRU's emissions. The Consent Decree requires a Preventive Maintenance and Operation Plan (PMOP) for minimizing SO₂ emissions.</p> <p>ENF: required by the Consent Decree entered March 14, 2006 to have the second SRU installed along with two tailgas units by Dec. 31, 2009.</p> <p>M, R, Rp - The hourly and annual emission limitations for CO, H₂S, NO_x, PM, PM₁₀ and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.</p> <p>Misc: Termination clause for the Consent Decree entered March 14, 2006.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Nitrogen oxides (NO _x) emissions shall not exceed 0.28 pound per hour and 1.23 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	N	N	Y	N	N	N	N	Y	Y	<p>BASIS: OAC rule 3745-31-05(A)(3) and PTI 04-01447. This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subparts A, CC, UUU and NSPS subparts A and J.</p> <p>NOTE: The permittee shall comply with the NSPS Subpart J requirements for this sulfur recover unit by December 31, 2009.</p> <p>OR - The permittee shall burn only natural gas or refinery fuel gas in this emissions unit.</p> <p>ENF: required by the Consent Decree entered March 14, 2006 to have the second SRU installed along with two tailgas units by Dec. 31, 2009.</p> <p>M, R, Rp - The hourly and annual emission limitations for CO, H₂S, NO_x, PM, PM₁₀ and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.</p> <p>Misc: Termination clause for the Consent Decree entered March 14, 2006.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Filterable plus condensable particulate matter (PM) emissions shall not exceed 0.05 pound per hour and 0.23 ton per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	Y	Y	N	N	Y	N	N	N	N	Y	Y	<p>BASIS: OAC rule 3745-31-05(A)(3) and PTI 04-01447. This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subparts A, CC, UUU and NSPS subparts A and J.</p> <p>NOTE: The permittee shall comply with the NSPS Subpart J requirements for this sulfur recover unit by December 31, 2009.</p> <p>ND - OAC rule 3745-17-11(A)(2) is less stringent than the above requirements.</p> <p>OR - The permittee shall burn only natural gas or refinery fuel gas in this emissions unit.</p> <p>ENF: required by the Consent Decree entered March 14, 2006 to have the second SRU installed along with two tailgas units by Dec. 31, 2009.</p> <p>M, R, Rp - The hourly and annual emission limitations for CO, H₂S, NOx, PM, PM₁₀ and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.</p> <p>Misc: Termination clause for the Consent Decree entered March 14, 2006.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Sulfur dioxide (SO ₂) emissions shall not exceed 16 pounds per hour and 56.72 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	Y	Y	Y	N	Y	Y	N	Y	N	Y	Y	<p>BASIS: OAC rule 3745-31-05(A)(3) and PTI 04-01447. This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subparts A, CC, UUU and NSPS subparts A and J. NOTE: The permittee shall comply with the NSPS Subpart J requirements for this sulfur recover unit by December 31, 2009.</p> <p>ND - OAC rule 3745-18-06(E) is less stringent than the above requirements.</p> <p>OR - The permittee shall burn only natural gas or refinery fuel gas in this emissions unit. The permittee is to route all sulfur pit emissions so that they are eliminated, controlled or monitored as part of the SRU's emissions. The Consent Decree requires a Preventive Maintenance and Operation Plan (PMOP) for minimizing SO₂ emissions.</p> <p>ENF: required by the Consent Decree entered March 14, 2006 to have the second SRU installed along with two tailgas units by Dec. 31, 2009. Also the CD requires the routing of all sulfur pit emissions so they are eliminated, controlled or monitored. They are to establish a Preventive Maintenance and Operation Plan (PMOP) to minimize the SO₂ emissions.</p> <p>M, R, Rp - The permittee is required to install an SO₂ CEM with appropriate M, R, and Rp.</p> <p>Misc: Termination clause for the Consent Decree entered March 14, 2006.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	<p>Volatile organic compounds (VOC) emissions shall not exceed 0.04 pound per hour and 0.17 ton per year, based upon a rolling, 365-day summation of the daily emissions</p>	N	Y	Y	Y	N	N	Y	N	N	N	N	Y	Y	<p>BASIS: OAC rule 3745-31-05(A)(3) and PTI 04-01447. This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subparts A, CC, UUU and NSPS subparts A and J. NOTE: The permittee shall comply with the NSPS Subpart J requirements for this sulfur recover unit by December 31, 2009.</p> <p>ND - OAC rule 3745-21-07(B) is now RESERVED in the OAC but the old requirements were equivalent to the above requirements in 31-05(A)(3).</p> <p>OR - The permittee shall burn only natural gas or refinery fuel gas in this emissions unit.</p> <p>ENF: required by the Consent Decree entered March 14, 2006 to have the second SRU installed along with two tailgas units by Dec. 31, 2009.</p> <p>M, R, Rp - The hourly and annual emission limitations for CO, H₂S, NO_x, PM, PM₁₀ and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.</p> <p>Misc: Termination clause for the Consent Decree entered March 14, 2006.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Visible emissions shall not exceed 10% opacity as a 6-minute average	N	Y	Y	Y	N	N	Y	N	N	N	N	Y	Y	<p>BASIS: OAC rule 3745-31-05(A)(3) and PTI 04-01447. This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subparts A, CC, UUU and NSPS subparts A and J.</p> <p>NOTE: The permittee shall comply with the NSPS Subpart J requirements for this sulfur recover unit by December 31, 2009.</p> <p>ND - OAC rule 3745-17-07(A)(1) is less stringent than the above requirements.</p> <p>OR - The permittee shall burn only natural gas or refinery fuel gas in this emissions unit.</p> <p>ENF: required by the Consent Decree entered March 14, 2006 to have the second SRU installed along with two tailgas units by Dec. 31, 2009.</p> <p>M, R, Rp - The permittee is required to burn only natural gas or refinery fuel gas in this emissions unit which are considered "clean fuels". Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation. The ET term may require a Method 9 test if necessary. NOTE: there are M, R & Rp for the types of fuel burned in this emissions unit.</p> <p>Misc: Termination clause for the Consent Decree entered March 14, 2006.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	CO emissions shall not exceed 0.58 pound per hour, 0.082 pound per million Btu of heat input (incinerator), and 2.52 tons per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	Y	Y	N	N	Y	N	N	N	N	Y	Y	<p>BASIS: OAC rule 3745-31-10 through 20 and PTI 04-01447. This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subparts A, CC, UUU and NSPS subparts A and J. NOTE: The permittee shall comply with the NSPS Subpart J requirements for this sulfur recover unit by December 31, 2009.</p> <p>ND - OAC rule 3745-21-08(B) requires BAT pursuant to OAC rule 3745-31-10 through 20.</p> <p>OR - The permittee shall burn only natural gas or refinery fuel gas in this emissions unit.</p> <p>ENF: required by the Consent Decree entered March 14, 2006 to have the second SRU installed along with two tailgas units by Dec. 31, 2009.</p> <p>M, R, Rp - The hourly and annual emission limitations for CO, H₂S, NO_x, PM, PM₁₀ and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.</p> <p>Misc: Termination clause for the Consent Decree entered March 14, 2006.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Particulate matter emissions less than 10 microns in diameter (PM ₁₀) shall not exceed 0.05 pound per hour, 0.0074 pound per million Btu of heat input, and 0.23 ton per year, based upon a rolling, 365-day summation of the daily emissions	N	Y	N	Y	N	N	Y	N	N	N	N	Y	Y	<p>BASIS: OAC rule 3745-31-10 through 20 and PTI 04-01447.</p> <p>This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subparts A, CC, UUU and NSPS subparts A and J.</p> <p>NOTE: The permittee shall comply with the NSPS Subpart J requirements for this sulfur recover unit by December 31, 2009.</p> <p>OR - The permittee shall burn only natural gas or refinery fuel gas in this emissions unit.</p> <p>ENF: required by the Consent Decree entered March 14, 2006 to have the second SRU installed along with two tailgas units by Dec. 31, 2009.</p> <p>M, R, Rp - The hourly and annual emission limitations for CO, H₂S, NO_x, PM, PM₁₀ and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.</p> <p>Misc: Termination clause for the Consent Decree entered March 14, 2006.</p>
	State LDAR equipment leak program	21-09 (T)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in A.I.2, A.II, A.III., A.IV., and A.V. in P801 of this permit.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	The permittee shall not discharge or cause the discharge of any gases into the atmosphere from any Claus sulfur recovery plant containing in excess of 250 ppm by volume (dry basis) of SO ₂ at zero percent excess air, as a rolling, 12-hour average	N	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	Y	<p>BASIS: 40 CFR 60, subparts A and J This source is exempt from CAM because it is subject to the requirements of 40 CFR 63 subparts A, CC, UUU and NSPS subparts A and J. NOTE: The permittee shall comply with the NSPS Subpart J requirements for this sulfur recover unit by December 31, 2009.</p> <p>OR - The permittee shall burn only natural gas or refinery fuel gas in this emissions unit. The permittee is to route all sulfur pit emissions so that they are eliminated, controlled or monitored as part of the SRU's emissions. The Consent Decree requires a Preventive Maintenance and Operation Plan (PMOP) for minimizing SO₂ emissions.</p> <p>ENF: required by the Consent Decree entered March 14, 2006 to have the second SRU installed along with two tailgas units by Dec. 31, 2009.</p> <p>M, R, Rp - The permittee is required to install an SO₂ CEM with appropriate M, R, and Rp.</p> <p>Misc: Termination clause for the Consent Decree entered March 14, 2006.</p>
	Requirements of 40 CFR 63 subpart UUU which include HAP emission limitations; and work practice standards for the SRU and bypass lines	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	<p>BASIS: 40 CFR 63, subparts A and UUU The permittee must meet the HAP emissions chosen from one of the two options stated in 40 CFR 63.1568(a) and Table 29; the General Provisions of subpart A as stated in Table 44; the notification requirements of 40 CFR 63.1574 and meet the work practice standards for bypass lines as stated in 40 CFR 63.1569(a) and Table 36.</p> <p>OR - the permittee must meet the operating limits that apply to this unit according to Table 30 for HAP emissions and prepare an operation, maintenance and monitoring plan for bypass lines according to 40 CFR 63.1574(f).</p> <p>Misc. - the applicable tables from 40 CFR 63 subpart UUU.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
P042, P043, P044, P045, P046	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule	17-07(A)	N	N	N	N	N	N	N	N	N	N	Y	N	NOTE: P042 through P046 are older existing cooling towers that were once covered as a group under emissions unit P017 but TDES requested that the cooling towers become separate emission units. M, R, Rp - It shall not be deemed a violation of this rule where the presence of uncombined water is the only reason for failure of a stack emission to meet the requirements of this rule, therefore, there are no M, R, & Rp requirements.
	P042- 97.4 lbs/hr of particulate emissions(PE) P043 - 94.2 lbs/hr of particulate emissions(PE) P044 - 96.0 lbs/hr of particulate emissions(PE) P045 - 90.1 lbs/hr of particulate emissions(PE) P046 - 104.5 lbs/hr of particulate emissions(PE)	17-11 (B)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	NOTE: The total dissolved solids (TDS) present in cooling water drift is directly responsible for the formation of particulate emissions when the drift is discharged from a cooling tower. The process weight rate (PWR) used to determine the allowable particulate mass emission rate is the total tons of circulating cooling water. Based on the cooling water maximum process flow rate of 16,500 gallons per minute, a PWR of 4,128 tons per hour was calculated. Using Table 1 in OAC rule 3745-17-11(B), the allowable particulate mass emission rate was determined to be 97.4 lbs/hr. The permittee is required to test and record the total dissolved solids concentration once per quarter.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
P801	385.43 tons per year volatile organic compounds (VOC) as a rolling 12-month summation of the monthly emissions	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	Y	<p>BASIS: OAC rule 3745-31-05(C) and PTI 04-01447. This is a facility-wide emission limit associated with the LDAR programs at the refinery.</p> <p>Modifications of the equipment at this facility shall not require a PTI modification that results solely in increases in fugitive equipment leaks unless and until the calculated facility-wide potential to emit (PTE) for fugitive emissions equals or exceeds the allowable fugitive emission limit stated above.</p> <p>All the M, R, Rp, ET are associated with the terms of the LDAR programs in 40 CFR 63, subpart CC and OAC rule 3745-21-09(T).</p> <p>Misc - The terms and conditions contained in Permit to Install 04-01447 for emissions unit P801 supercedes all requirements for the emissions units listed below. They may have been used for netting purposes in the past.</p> <p>P019 - HPN-IVB unit (converts 1,3-butadiene to isomers of butylene in the alkylation unit) P020 - Thiolex Unit (removes hydrogen sulfide from C4 hydrocarbons before streams are processed in Alkylation units) P023 - GPU Modernization project (Gas Processing Unit with a compressor (C-421) in Plant 4 subject to NSPS) P024 - FCC Merichem Treater (gasoline treater in plant 4) P025 - gasoline blending facility P027 - MFA gasoline additive facility P028 - Nonene production facility P034 - Amine Unit Reliability Project (treats the amine acid gas fed to the SRU, treat fuel gas and the C3 stream)</p>
	Refinery MACT LDAR program	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>This source is exempt from CAM because it is subject to the Refinery MACT, subpart CC</p> <p>BASIS - 40 CFR 63 subpart CC and subpart A. The facility-wide MACT LDAR program along with all M, R, RP and ET are in emissions unit P801 of this permit.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	VOC LDAR program, NSPS subpart VV	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	BASIS - 40 CFR 60, subpart VV In accordance with 40 CFR Part 63, Subpart CC, the permittee shall comply with the applicable provisions of 40 CFR Part 60, Subpart VV. There may be other VOC pieces of equipment that are not subject to the Refinery MACT but are still subject to this VOC program. It's based on the definition for HAP's and VOC's according to each applicable subpart.
	VOC LDAR program, NSPS subpart GGG	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	BASIS - 40 CFR 60, subpart GGG The provisions of 40 CFR part 60 subpart GGG applies to petroleum refinery equipment leaks of VOC from a compressors, valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service by complying with the VOC requirements of 40 CFR Part 60, Subpart VV which are found in source P801.
	Enhanced LDAR program	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	Y	BASIS - OAC rule 3745-31-05(C) and PTI 04-01447 An enhanced LDAR program is required by the consent decree as entered on March 14, 2006. Most of the requirements established by the consent decree are more stringent than the requirements of 40 CFR 63, subpart CC and OAC rule 3745-21-09(T). Misc - Termination clause for the Consent Decree.
	State LDAR equipment leak program	21-09 (T)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	The permittee shall establish a LDAR program for VOC sources according to the appropriate sections in A.I.2, A.II, A.III., A.IV., and A.V. in P801 of this permit.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
T001, T003, T004, T010, T060, T061, T062, and T064	The permittee shall equip the EFR -> IFR Group 1 storage vessel with an internal floating roof	N	Y	N	Y	Y	N	N	Y	N	Y	N	N	N	<p>These sources are exempt from CAM as they are subject to 40 CFR 63 subpart CC.</p> <p>BASIS - 40 CFR 63 subpart CC and those portions of 40 CFR 63 subpart G referenced by subpart CC. The permittee shall operate and maintain an internal floating roof to control VOC emissions. This requires utilizing seals, seal inspections and appropriate vessel filling.</p> <p>All openings are to be closed except as stated in 40 CFR 63.646(f) and 40 CFR 63.119(b). Appropriate M, R, and Rp are required for these Group 1 storage vessels.</p> <p>ET - Since there is no emission limit, testing is not required. Emissions are considered negligible and would be estimated using the TANKS program.</p>
	State storage vessel requirements	21-09 (L)	N	N	N	Y	N	N	Y	N	Y	N	N	N	<p>State regulations require the tanks to be equipped with internal floating roofs, bleeder vents closed at all times except when roof is floated off and that all openings except sub drains shall be equipped with a cover, seal or lid and kept in a closed position.</p> <p>M & R - Recordkeeping is required for the types of petroleum liquids stored and the vapor pressure of the liquids.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
T005, T013, T053, T058, T070, T072, T090, T091, T092, T093, T110 and T111	The permittee shall equip the IFR Group 1 storage vessel with an internal floating roof	N	Y	N	Y	Y	N	N	Y	N	Y	N	N	N	<p>These sources are exempt from CAM as they are subject to 40 CFR 63 subpart CC.</p> <p>BASIS - 40 CFR 63 subpart CC and those portions of 40 CFR 63 subpart G referenced by subpart CC. The permittee shall operate and maintain an internal floating roof to control VOC emissions.</p> <p>OR - Requires utilizing seals, seal inspections and appropriate vessel filling. All openings are to be closed except as stated in 40 CFR 63.646(f) and 40 CFR 63.119(b). Appropriate M, R, and Rp are required for these Group 1 storage vessels.</p> <p>ET - Since there is no emission limit, testing is not required. Emissions are considered negligible and would be estimated using the TANKS program.</p>
	State storage vessel requirements	21-09 (L)	N												State regulations require the tanks to be equipped with internal floating roofs, bleeder vents closed at all times except when roof is floated off and that all openings except sub drains shall be equipped with a cover, seal or lid and kept in a closed position.

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
T006, T007, T009, T015, T029, T037, T038, T039, T041, T044, T047, T054, T059, T063, T065, T066, T067, T068, and T069	The permittee shall equip the EFR Group 1 storage vessel with a closure device that consists of a dual seal system	N	Y	N	Y	Y	N	N	Y	N	Y	N	N	N	<p>These sources are exempt from CAM as they are subject to 40 CFR 63 subpart CC.</p> <p>BASIS - 40 CFR 63 subpart CC and 40 CFR 63 subpart G. The permittee shall operate and maintain an external floating roof to control VOC emissions by complying with the requirements of 40 CFR 63 subpart G, monitoring the seals and performing inspections.</p> <p>OR - Requires that the external roof remain closed at all times, bleeder vents are to be closed; the seals are to be monitored and inspected. Appropriate M, R, and RP are required for these Group 1 EFR tanks.</p> <p>ET - Since there is no emission limit, testing is not required. Emissions are considered negligible and would be estimated using the TANKS program.</p>
	State storage vessel requirements	21-09 (Z)	N	N	N	Y	N	N	Y	N	Y	N	N	N	<p>State regulations require the tanks to be equipped with external floating roofs, all openings except bleeder vents, rim space vents, leg sleeves, sub drains and gauging/sampling wells shall be equipped with a projection into the tank below the surface.</p> <p>M - Seals shall be inspected and the secondary seal gap shall be measured annually with appropriate R, along with the types of liquids stored and the annual throughput.</p> <p>Rp - reporting requirements are similar to those for the refinery MACT., therefore they are not listed specifically for OAC rule 3745-21-09(Z).</p>
	2.28 tons per year VOC	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>For source T015 - PTI 04-680</p> <p>BASIS - BAT limitation (OAC rule 3745 31-05(A)(3))</p> <p>M&R - maintains records of the types of liquids stored and throughput.</p> <p>ET - compliance is demonstrated through the use of TANKS program</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
T098 and T099	The permittee shall equip the IFR Group 1 storage vessel with an internal floating roof	N	Y	Y	Y	Y	N	N	Y	N	Y	N	N	N	<p>These sources are exempt from CAM as they are subject to 40 CFR 63 subpart G.</p> <p>BASIS - 40 CFR 63 subpart G, 40 CFR 63 subpart F and 40 CFR 63 subpart A. The permittee shall operate and maintain a fixed roof with an internal floating roof to control VOC emissions.</p> <p>ND - 40 CFR 63 subpart CC The provisions of the Refinery MACT do not apply to emission points subject to 40 CFR 63 subparts F, G and H.</p> <p>OR - The internal floating roof shall be floating on the surface at all times except for the exceptions stated in 40 CFR 63.119(b). The permittee shall use the appropriate seals, maintain and inspect them. Appropriate M, R, and Rp are required for these Group 1 storage vessels.</p> <p>ET - Since there is no emission limit, testing is not required. Emissions are considered negligible and would be estimated using the TANKS program.</p>
	State storage vessel requirements	21-09 (L)	N	N	N	Y	N	N	Y	N	Y	N	N	N	<p>State regulations require the tanks to be equipped with internal floating roofs, bleeder vents closed at all times except when roof is floated off and that all openings except sub drains shall be equipped with a cover, seal or lid and kept in a closed position.</p> <p>M - Seals shall be inspected and the secondary seal gap shall be measured annually with appropriate R, along with the types of liquids stored and the annual throughput.</p> <p>Rp - reporting requirements are similar to those for the refinery MACT., therefore they are not listed specifically for OAC rule 3745-21-09(Z).</p> <p>ET - Since there is no emission limit, testing is not required. Emissions are considered negligible and would be estimated using the TANKS program.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
T036, T149, and T158	The permittee shall equip the EFR -> IFR Group 1 storage vessel with an internal floating roof	N	Y	N	N	Y	N	N	Y	N	Y	N	N	N	These sources are exempt from CAM as they are subject to 40 CFR 63 subpart CC. BASIS - 40 CFR 63 subpart CC . A Group 1 vessel that is also subject to 40 CFR 60 subpart Kb, is required to comply only with the requirements of 40 CFR 60 subpart Kb except as stated in 40 CFR 63.640(n)(8).
	The permittee shall employ an internal floating roof with seals in accordance with 40 CFR 60 subpart Kb	N	Y	N	N	Y	N	N	Y	N	Y	N	N	N	BASIS - 40 CFR 60 subpart Kb The permittee shall monitor and inspect the seals, keep all openings covered, and bleeder vents closed. The permittee shall maintain records of the material stored, vapor pressure, and annual throughput. Appropriate M, R, and Rp are required for these Group 1 storage vessels.
	State storage vessel requirements	21-09 (L)	N	N	N	N	Y	N	N	N	N	N	N	N	ST - The requirements of this rule are equivalent or less stringent than the requirements of 40 CFR 60 subpart Kb.
	Emission Limitation for VOC for sources T036 and T158.	31-05 (A)(3)	N	N	N	Y	N	N	N	Y	N	N	N	Y	N

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
T075	The permittee shall equip the IFR Group 1 storage vessel with an internal floating roof	N	Y	N	Y	Y	N	N	Y	N	Y	N	N	N	<p>This source is exempt from CAM as it is subject to 40 CFR 63 subpart CC and 40 CFR 61 subpart FF.</p> <p>BASIS - 40 CFR 63 subpart CC and 40 CFR 63 subpart G.</p> <p>OR - The permittee shall operate and maintain an internal floating roof to control VOC emissions. This requires utilizing seals, seal inspections and appropriate vessel filling. All openings are to be closed except as stated in 40 CFR 63.646(f) and 40 CFR 63.119(b). Appropriate M, R, and Rp are required for these Group 1 storage vessels.</p> <p>ET - Since there is no emission limit, testing is not required. Emissions are considered negligible and would be estimated using the TANKS program.</p>
	Wastewater storage vessel requirements	N	Y	N	N	N	N	N	N	N	N	N	N	N	<p>BASIS - 40 CFR 61 subpart FF The permittee may elect to install a fixed roof and IFR that meets the requirements of 40 CFR 60.112b(a)(1) of subpart Kb.</p> <p>M & R & Rp - although not specifically quoted from 40 CFR 61 subpart FF, the requirements are equivalent to those required by 40 CFR 63 subpart CC for storage vessels.</p>
	State storage vessel requirements	21-09 (L)	N	N	N	Y	N	N	Y	N	Y	N	N	N	<p>State regulations require the tanks to be equipped with internal floating roofs, bleeder vents closed at all times except when roof is floated off and that all openings except sub drains shall be equipped with a cover, seal or lid and kept in a closed position.</p> <p>M & R - Maintain records of the types of liquids stored and the vapor pressure of the liquids.</p> <p>Rp - reporting requirements are similar to those for the refinery MACT., therefore they are not listed specifically for OAC rule 3745-21-09(Z).</p> <p>ET - Since there is no emission limit, testing is not required.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
T157	The permittee shall equip the IFR Group 1 storage vessel with an internal floating roof	N	Y	Y	Y	Y	N	N	Y	N	Y	N	Y	N	<p>These sources are exempt from CAM as they are subject to 40 CFR 63 subpart G.</p> <p>BASIS - 40 CFR 63 subpart G, 40 CFR 63 subpart F and 40 CFR 63 subpart A. The permittee shall operate and maintain a fixed roof with an internal floating roof to control VOC emissions.</p> <p>ND - 40 CFR 63 subpart CC The provisions of the Refinery MACT do not apply to emission points subject to 40 CFR 63 subparts F, G, H and I.</p> <p>ND - 40 CFR 61 subpart Y and 40 CFR 60 subpart Kb A Group 1 storage vessel subject to 40 CFR 61 subpart Y or 40 CFR 60 subpart Kb are required to comply only with the provisions of 40 CFR 63 subpart G.</p> <p>OR - The internal floating roof shall be floating on the surface at all times except for the exceptions stated in 40 CFR 63.119(b). The permittee shall use the appropriate seals, maintain and inspect them. Appropriate M, R, and Rp are required for these Group 1 storage vessels.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	State storage vessel requirements	21-09 (L)	N	N	N	Y	N	N	Y	N	N	N	Y	N	<p>State regulations require the tanks to be equipped with internal floating roofs, bleeder vents closed at all times except when roof is floated off and that all openings except sub drains shall be equipped with a cover, seal or lid and kept in a closed position.</p> <p>M & R - Maintain records of the types of liquids stored and the vapor pressure of the liquids.</p> <p>Rp - reporting requirements are similar to those for the refinery MACT., therefore they are not listed specifically for OAC rule 3745-21-09(Z).</p> <p>ET - Compliance with the benzene and VOC emission limitations shall be determined using the latest version of TANKS software (TANKS 4), using the actual annual throughput and annual average vapor pressure. All of the benzene is considered a VOC for purposes of calculating the emission limits.</p>
	1.04 tons per year benzene and 1.04 tons per year VOC	31-05 (A)(3)	N	N	N	Y	N	N	Y	N	N	N	Y	N	<p>Basis - BAT limitation (OAC rule 3745 31-05(A)(3) as established in PTI 04-0904.</p> <p>M, R, Rp & ET - see above for OAC rule 3745-21-09(L)</p>
T005, T081, T085, T088, T089, T124, and T125	Group 2 storage vessel with an internal floating roof	N	Y	N	N	Y	N	N	Y	N	Y	N	N	N	<p>These sources are exempt from CAM as they are subject to 40 CFR 63 subpart CC.</p> <p>BASIS - 40 CFR 63 subpart CC</p> <p>OR - No operational restriction is required for Group 2 storage vessels. Appropriate M, R and Rp are required for these Group 2 storage vessels which includes the storage vessels determination and dimensions showing the capacity of the tank.</p> <p>ET - For T005, T081, T085, T088 and T089; there is no emission limit, testing is not required.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	State storage vessel requirements	21-09 (L)	N	N	N	Y	N	N	Y	N	Y	N	N	N	<p>State regulations require the tanks to be equipped with internal floating roofs, bleeder vents closed at all times except when roof is floated off and that all openings except sub drains shall be equipped with a cover, seal or lid and kept in a closed position.</p> <p>M & R - Maintain records of the types of liquids stored and the vapor pressure of the liquids.</p>
	<p>Total combined emissions for sources T127 and T128 is 2.72 TPY VOC</p> <p>The total combined emissions for emissions units T124 and T125 shall not exceed 8.53 tons of organic compounds (OC) per year</p>	31-05 (A)(3)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>Basis - BAT limitation (OAC rule 3745 31-05(A)(3) as established in PTI 04-0480 for T127 & T128 and as established inPTI 04-0419 for T125 and T125.</p> <p>M & R - see above</p> <p>ET - Compliance with the OC emission limitation shall be determined using the latest version of TANKS software (TANKS 4), using the actual annual throughput and annual average vapor pressure. This annual value shall be added to the calculated annual values for emissions units T014, T127 and T128.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
T016, T018, T019, T021, T022, T023, T024, T025, T026, T042, T043, T045, T051, T056, T078, T079, T082, T100, T103, T113, and T127	Requirements for Group 2 fixed roof EFR storage vessels	N	Y	N	Y	Y	N	N	Y	N	Y	N	N	N	<p>These sources are exempt from CAM as they are subject to 40 CFR 63 subpart CC.</p> <p>BASIS - 40 CFR 63, subpart CC If a Group 2 emission point becomes a Group 1 emission point, it must be in compliance with the applicable requirements for Group 1 emission point upon startup. Appropriate M, R and Rp are required for these Group 2 storage vessels which includes the storage vessels determination and dimensions showing the capacity of the tank.</p> <p>ET - For all tanks listed except T127; since there is no emission limit, testing is not required.</p>
	State storage vessel requirements	21-09 (L)	N	Y	N	Y	N	N	Y	N	Y	N	N	N	<p>State regulations require the tanks to be equipped with internal floating roofs, bleeder vents closed at all times except when roof is floated off and that all openings except sub drains shall be equipped with a cover, seal or lid and kept in a closed position.</p> <p>OR - The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than 1.52 pounds per square inch absolute (psia).</p> <p>M & R - Maintain records of the types of liquids stored and the vapor pressure of the liquids.</p>
	Total combined emissions for sources T014, T127 and T128 is 2.72 TPY VOC	31-05 (A)(3)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>For source T127 only: Basis - BAT limitation (OAC rule 3745 31-05(A)(3) as established in PTI 04-0480.</p> <p>M & R - requires maintaining records of the types of liquids stored in the tank, the vapor pressure of the liquids and the annual throughput.</p> <p>ET - Compliance with the OC emission limitation shall be determined using the latest version of TANKS software (TANKS 4), using the actual annual throughput and annual average vapor pressure. This annual value shall be added to the calculated annual values for emissions units T014, T127 and T128. NOTE: T014 was removed from service and is gone.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
T028, T101	The permittee shall comply with the recordkeeping requirements in 40 CFR 63.123 for Group 2 storage vessels with an internal floating roof	N	Y	Y	Y	Y	N	N	Y	N	Y	N	N	N	<p>These sources are exempt form CAM as they are subject to 40 CFR 63 subpart G.</p> <p>BASIS - 40 CFR 63 subpart G, 40 CFR 63 subpart F and 40 CFR 63 subpart A.</p> <p>ND - 40 CFR 63 subpart CC The provisions of the Refinery MACT do not apply to emission points subject to 40 CFR 63 subparts F, G, and H.</p> <p>ET for T101 - Since there is no emission limit, testing is not required.</p>
	State storage vessel requirements	21-09 (L)	N	N	N	Y	N	N	Y	N	N	N	N	N	<p>State regulations require the permittee to maintain records showing the types of petroleum liquids stored, the maximum true vapor pressure of the liquids, the storage vessels dimensions and analysis showing the capacity of the vessel.</p> <p>M & R - Maintain records of the types of liquids stored and the vapor pressure of the liquids.</p>
T037, T047	Group 2 storage vessel with an external floating roof	N	Y	Y	N	Y	N	N	Y	N	Y	N	N	N	<p>These sources are exempt from CAM because they are subject to 40 CFR 63 subpart G.</p> <p>BASIS - 40 CFR 63 subpart G, subpart F and subpart A</p> <p>ND - 40 CFR 63 subpart CC The provisions of the Refinery MACT do not apply to emission points subject to 40 CFR 63 subparts F, G, H and I.</p> <p>OR - No operational restriction is required for Group 2 storage vessels. Appropriate M, R and Rp are required for these Group 2 storage vessels.</p> <p>ET - Since there is no emission limit, testing is not required.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	State storage vessel requirements	21-09 (Z)	N	N	N	Y	N	N	Y	N	N	N	N	N	<p>State regulations require the permittee to maintain records showing the types of petroleum liquids stored, the maximum true vapor pressure of the liquids, the storage vessels dimensions and analysis showing the capacity of the vessel.</p> <p>M & R - Maintain records of the types of liquids stored and the vapor pressure of the liquids.</p>
T128	The permittee shall equip the fixed roof tank with an internal floating roof; Group 2 storage vessel	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>This source is exempt from CAM as it is subject to 40 CFR 60 subpart Kb.</p> <p>BASIS - 40, CFR 63, subpart CC and 40 CFR 60 subpart Kb A Group 2 vessel that is also subject to 40 CFR 60 subpart Kb, is required to comply only with the requirements of 40 CFR 60 subpart Kb except as stated in 40 CFR 63.640(n)(8).</p> <p>M & R - Inspection of seals and records of the inspections , dimensions and capacity of vessel.</p>
	Wastewater storage vessel requirements	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>BASIS - 40 CFR 61 subpart FF The permittee may elect to install a fixed roof and IFR that meets the requirements of 40 CFR 60.112b(a)(1) of subpart Kb.</p> <p>M & R - see above</p>
	State storage vessel requirements	21-09 (L)	N	N	N	Y	N	N	Y	N	N	N	N	N	<p>State regulations require the permittee to maintain records showing the types of petroleum liquids stored, the maximum true vapor pressure of the liquids, the storage vessels dimensions and analysis showing the capacity of the vessel.</p> <p>M & R - Maintain records of the types of liquids stored and the vapor pressure of the liquids.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Total combined emissions for sources T014, T127 and T128 is 2.72 TPY VOC	31-05 (A)(3)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>For source T128 only: Basis - BAT limitation (OAC rule 3745 31-05(A)(3) as established in PTI 04-0480.</p> <p>M & R - requires maintaining records of the types of liquids stored in the tank, the vapor pressure of the liquids and the annual throughput.</p> <p>ET - Compliance with the OC emission limitation shall be determined using the latest version of TANKS software (TANKS 4), using the actual annual throughput and annual average vapor pressure. This annual value shall be added to the calculated annual values for emissions units T014, T127 and T128. NOTE: T014 has been removed dismantled and is no longer in service.</p>
T150, T155, T161, and T162	The permittee shall record the dimensions and capacity of the Group 2 fixed roof storage vessel	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	<p>These sources are exempt from CAM as they are subject to 40 CFR 63 subpart CC.</p> <p>BASIS - 40 CFR 63 subpart CC and 40 CFR 60 subpart Kb A Group 2 vessel that is also subject to 40 CFR 60 subpart Kb, is required to comply only with the requirements of 40 CFR 60 subpart Kb except as stated in 40 CFR 63.640(n)(8)</p>
	State storage vessel requirements	21-09 (L)	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	<p>State regulations require the permittee to maintain records showing the types of petroleum liquids stored, the maximum true vapor pressure of the liquids, the storage vessels dimensions and analysis showing the capacity of the vessel.</p> <p>OR - The permittee shall not place, store, or hold in this fixed tank any petroleum liquid has a true vapor pressure greater than 1.52 psia.</p> <p>M & R - Maintain records of the types of liquids stored and the vapor pressure of the liquids.</p> <p>ET - Compliance with the OC emission limitation shall be determined using the latest version of TANKS software (TANKS 4), using the actual annual throughput and annual average vapor pressure.</p>

EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments
		SIP (3745-)	Other												
	Emission Limitation for VOC	N	Y	N	Y	Y	N	N	Y	N	Y	N	Y	N	BASIS - BAT limitation (OAC rule 3745 31-05(A)(3)) -- T150; PTI 04-796; 0.08 TPY VOC -- T155; PTI 04-898; 0.63 TPY VOC -- T161; PTI 04-796; 2.61 TPY VOC -- T162; PTI 04-01230; 2.61 TPY VOC OR, M, R & ET - see above