

# Statement of Basis For Title V Permit

Company Name	The Dow Chemical Company - Hanging Rock		
Premise Number	0744000029		
Number of Non-insignificant Emissions Units	22		
What makes this facility a Title V facility?	Exceeds the 100 TPY threshold for VOC.		
Has each insignificant emissions unit been reviewed to confirm it meets the definition in 3745-77-01 (U)?	Yes		

<b>Part II (State and Federally Enforceable Requirements)</b>			
Term and Condition (paragraph)	Basis		Comments
	SIP (3745- )	Other	
NA			

▼ **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.

- ▼ If there were any “common control” issues associated with this facility, after the table for Part II, provide a summary of those issues and explain how the DAPC decided to resolve them.

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

EU(s)	Limitation	Basis		O R	M	R	Rp	ET	Mis c	Comments
		SIP (3745- )	Other							
B010, B015, B020	20% opacity as a six minute average	3745-17-07(A)	N	N	N	N	N	N	N	M,R,Rp - not required to demonstrate compliance.  ET -If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR part 60, Appendix A, Method 9 and the methods and procedures required in OAC rule 3745-17-03(B)(1).
	NA	3745-18-06(B)	N	N	N	N	N	N	N	this rule does not apply because the boiler is less than 10 MMBTU/hr
	NA	3745-17-10(B)(1)	N	N	N	N	N	N	N	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
B010, B020	0.18 lb/hr and 0.79 TPY particulates	3745-31-05(A)(3) (PTI 07-420)	N	Y	Y	Y	Y	N	N	OR - the amount of Byproduct fuel burned shall not exceed 50% (228 lb/hr) of the mass flow rate of fuel.  ET -Compliance shall be demonstrated using emission factors from the most recent stack test that demonstrated compliance. Stack testing , if required.
	0.047 lb/hr and 0.21 TPY VOC	3745-31-05(A)(3) (PTI 07-420)	N	Y	Y	Y	Y	Y	N	OR - the amount of Byproduct fuel burned shall not exceed 50% (228 lb/hr) of the mass flow rate of fuel.
	2.73 lb/hr and 11.96 TPY NOx	3745-31-05(A)(3) (PTI 07-420)	N	Y	Y	Y	Y	N	N	OR - the amount of Byproduct fuel burned shall not exceed 50% (228 lb/hr) of the mass flow rate of fuel.  ET -Compliance shall be demonstrated using emission factors from the most recent stack test that demonstrated compliance. Stack testing , if required.
	3.66 lb/hr and 16.05 TPY SO2	3745-31-05(A)(3) (PTI 07-420)	N	Y	Y	Y	Y	N	N	OR - No. 2 fuel oil shall be burned for emergency backup only. No. 2 fuel oil shall have a sulfur content of less than or equal to 0.4% by weight.  ET -compliance shall be demonstrated using AP-42 emission factors.
	0.004 lb/hr and 0.02 TPY CO	3745-31-05(A)(3) (PTI 07-420)	N	Y	Y	Y	Y	N	N	OR - the amount of Byproduct fuel burned shall not exceed 50% (228 lb/hr) of the mass flow rate of fuel.  ET -Compliance shall be demonstrated using emission factors from the most recent stack test that demonstrated compliance. Stack testing , if required.

B015	0.02 lb/MMBTU and 0.79 TPY PM/PM10; 0.0005 lb/hr and 0.023 TPY SO2; 0.87 lb/hr and 3.83 TPY NOx	3745-31-05(A)(3) (PTI 07-299)	N	Y	Y	Y	Y	N	N	OR - Only Natural Gas shall be burned in this emission unit.  ET - compliance shall be demonstrated using emission factors from Section 1.4of the AP-42 document dated July 1998.
L001, L002	The cleaner shall employ a tightly fitting cover... and a water layer at a min thickness of 1 inch.	N	40 CFR 63, Subpart T	Y	Y	Y	Y	N	N	OR - The cold cleaner shall be equipped with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 pounds per square inch absolute measured at 100 deg F, the drainage facility shall be constructed internally... OR - The cold cleaner shall be operated and maintained to minimize solvent evaporation from the unit.  ET - not required to demonstrate compliance.
	<0.5 TPY of VOC	3745-31-05(A)(3) (PTI 07-452)	N	Y	Y	Y	Y	N	N	OR - The cold cleaner shall be equipped with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 pounds per square inch absolute measured at 100 deg F, the drainage facility shall be constructed internally... OR - The cold cleaner shall be operated and maintained to minimize solvent evaporation from the unit.  ET - Compliance shall be demonstrated through calculation based on monitoring and recordkeeping requirements
	NA	OAC rule 3745-21-09(O)	N	N	N	N	N	N	N	This rule is equivalent to or less stringent than 40 CFR 63 Subpart T.
P002, P010	Leak Detection and repair program	3745-21-09(DD)	40 CFR part 63 Subpart JJJ	Y	Y	Y	Y	N	N	ET - compliance shall be determined by monitoring ,recordkeeping and reporting requirements.
	Reduce HAP or TOC emission by 98 weight percent	N	40 CFR par t63 Subpart JJJ	Y	Y	Y	Y	N	N	OR - if a boiler is used to comply with the percent reduction requirement, then the vent stream shall be introduced into the flame zone of such a device.  ET - compliance shall be demonstrated by BIF testing performed on B010 and B020 which are the control devices for this emission unit.

P002	VOC emissions shall not exceed 0.06 lb/hr and 0.26 TPY	3745-31-05(A)(3) (PTI 07-00479)	N	N	Y	Y	Y	N	N	ET - compliance shall be demonstrated with monitoring, recordkeeping and calculation.
	NA	3745-21-09(CC)	N	N	N	N	N	N	N	The emission limit established pursuant to this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
P010	VOC from material recovery section shall not exceed 0.12 lb/1000 lb product produced.	3745-21-09(CC)	N	N	Y	Y	Y	Y	N	ET - compliance shall be based on the results of the most recent compliance test conducted on the dowtherm heaters (B010 and B020).
	No visible particulate emissions from the rework filter receiver ME-710, transfer system, and screening operation.	3745-31-05(A)(3) (PTI 07-446)	N	N	N	N	N	N	N	M,R,Rp - not required to demonstrate compliance  ET - If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR part 60, Appendix A, Method 22 and the methods and procedures required in OAC rule 3745-17-03(B)(1).
P009	7.9 lb/hr and 33 tpy VOC, 216 tpy fugitive VOC, 5.5 lb/hr and 20.3 tpy HCFC 142b, 11 tpy fugitive HCFC 142b, 4.8 lb/hr and 7.7 tpy HFC 152a	3745-31-03(A)(3) (PTI 07-390)	N	N	Y	Y	Y	N	N	ET - compliance with the lb/hr limits shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on AP-42 emission factor and/or emission factors developed based on the product mix. Compliance with the TPY limits shall be demonstrated based upon the required monitoring and record keeping.

	NA	3745-21-07(B)	N	N	N	N	N	N	N	This rule does not apply because the material used in this process is not a liquid: therefore, it does not meet the definition of a photochemically reactive material defined in OAC rule 3745-21-01(C)(5).
P015	45.5 lb/hr and 199.2 tpy VOC, 162.8 lb/hr and 713.2 tpy HCFC 142b, 79.2 lb/hr and 249 tpy HFC 152a	3745-31-05(A)(3) (PTI 07-390)	N	N	Y	Y	Y	N	N	ET - compliance with the lb/hr limits shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on AP-42 emission factor and/or emission factors developed based on the product mix. Compliance with the TPY limits shall be demonstrated based upon the required monitoring and record keeping.
	1 lb/hr and 4.38 tpy particulates,	3745-31-05(A)(3) (PTI 07-390)	N	Y	Y	Y	Y	Y	N	OR - pressure drop across the baghouse shall be maintained within a range of 1 - 5 inches of water while the emission unit is in operation.
	20% opacity as a 6 minute average from the baghouse stack	3745-17-07(A)	N	N	Y	Y	Y	N	N	ET - If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR part 60, Appendix A, Method 9 and the methods and procedures required in OAC rule 3745-17-03(B)(1).
	NA	3745-17-11(B)	N	N	N	N	N	N	N	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

P003, P014, P017, P018, P022, P023,	Emissions from the Thermal Ox shall not exceed: 2.75 lb/hr and 12 tpy particulates, 0.12 lb/hr and 0.53 tpy SO <sub>2</sub> , 6.0 lb/hr and 26.3 tpy Nox, 40.2 lb/hr VOC  98% VOC control from Rtox	3745-31-05(A)(3) (PTI 07-00494)	N	Y	Y	Y	Y	Y	N	OR - A min. temp of 1425 F shall be maintained in the combustion zone of the thermal oxidizer.
P003, P014, P017, P018, P022, P023	There shall be no ve's in excess of 10% opacity as a 6 min average in any 60 min observation period.	3745-31-05(A)(3) (PTI 07-00494)	N	N	N	N	N	N	N	M,R,Rp - not required to demonstrate compliance.  ET - If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR part 60, Appendix A, Method 9 and the methods and procedures required in OAC rule 3745-17-03(B)(1).
P003, P014, P022, P023, P017, P018	NA	3745-17-07(A)	N	N	N	N	N	N	N	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
P003, P014, P022, P023	NA	3745-17-11(B)	N	N	N	N	N	N	N	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
P003	Controlled VOC emissions shall not exceed 4.4 lb/hr	3745-31-05(A)(3) (PTI 07-00494)	N	N	Y	Y	Y	N	N	ET - compliance shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on AP-42 emission factor and/or emission factors developed based on the product mix.

P003, P022	15.9 tons VOC per rolling 365 day period combined limit for P003 and P022	3745-31-05(D)	N	Y	Y	Y	Y	N	N	OR - Combined VOC usage for sources P003 and P022 shall not exceed 2540 tpy based on 365 day rolling summation.  ET - compliance shall be demonstrated through monitoring and recordkeeping.
P014	Controlled VOC emissions shall not exceed 3.3 lb/hr	3745-31-05(A)(3) (PTI 07-00494)	N	N	Y	Y	Y	N	N	ET - compliance shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on AP-42 emission factor and/or emission factors developed based on the product mix.
P023	23.2 tons VOC per rolling 365 day period combined limit for P003, P022, P014 and P023	3745-31-05(D)	N	Y	Y	Y	Y	N	N	OR - The isobutane usage restriction on lines P003, P022 and P014 results in restricted annual emissions from this source.  ET - compliance shall be demonstrated through monitoring and recordkeeping using the summation of the annual emissions for emissions units P003, P022, P014, and P023.
P014	23.2 tons VOC per rolling 365 day period combined limit for P003, P022, P014 and P023	3745-31-05(D)	N	Y	Y	Y	Y	N	N	OR - Combined VOC (Isobutane ) usage for sources P003, P022 and P014 shall not exceed 3540 tpy based on a rolling 365 day summation.  ET - compliance shall be demonstrated through monitoring and recordkeeping using the summation of the annual emissions for emissions units P003, P022, P014, and P023.
P022	Controlled VOC emissions shall not exceed 5.2 lb/hr	3745-31-05(A)(3) (PTI 07-00494)	N	N	Y	Y	Y	N	N	ET - compliance shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on emission factors developed based on the product mix.
P023	Controlled VOC emissions shall not exceed 17 lb/hr	3745-31-05(A)(3) (PTI 07-00494)	N	N	Y	Y	Y	N	N	ET - compliance shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on emission factors developed based on the product mix.

P017	Controlled VOC emissions shall not exceed 8.1 lb/hr	3745-31-05(A)(3) (PTI 07-00494)	N	N	Y	Y	Y	N	N	ET - compliance shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on emission factors developed based on the product mix.
	VOC shall not exceed 14 tpy, based on a 365day rollingsummation of the daily emissions	3745-31-05(D)	N	N	Y	Y	Y	N	N	OR - The isobutane usage restriction on lines P003, P022 and P014 results in restricted annual emissions from this source.  ET - compliance shall be demonstrated using monitoring and recordkeeping .
P017, P018	Combined VOC emissions from P017 and P018 shall not exceed 16,000 lb/day when the Thermal Ox. is shutdown	3745-31-05(A)(3) (PTI 07-00494)	N	N	Y	Y	Y	N	N	ET - compliance shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on emission factors developed based on the product mix.
P018	Controlled VOC emissions shall not exceed 19.2 lb/hr	3745-31-05(A)(3) (PTI 07-00494)	N	N	Y	Y	Y	N	N	ET - compliance shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on emission factors developed based on the product mix.
	VOC shall not exceed 31.5 tpy, based on a 365day rollingsummation of the daily emissions	3745-31-05(D)	N	Y	Y	Y	Y	N	N	OR - The isobutane usage restriction on lines P003, P022 and P014 results in restricted annual emissions from this source.  ET - compliance shall be demonstrated using monitoring and recordkeeping

P019	800 lb/day VOC	3745-31-05(A)(3) (PTI 07-00494)	N	N	Y	Y	Y	N	N	ET - compliance shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on emission factors developed based on the product mix.
	VOC vent emissions shall not exceed 70tpy based on 365 day rolling summation	3745-31-05(D)	N	Y	Y	Y	Y	N	N	OR - The isobutane usage restriction on lines P003, P022 and P014 results in restricted annual emission from this source.  ET - compliance shall be demonstrated using monitoring and recordkeeping
P020	600 lb/day VOC	3745-31-05(A)(3) (PTI 07-00494)	N	N	Y	Y	Y	N	N	ET - compliance shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on emission factors developed based on the product mix.
	VOC vent emissions shall not exceed 53 tpy based on 365 day rolling summation	3745-31-05(D)	N	Y	Y	Y	Y	N	N	OR - The isobutane usage restriction on lines P003, P022 and P014 results in restricted annual emission from this source.  ET - compliance shall be demonstrated using monitoring and recordkeeping
P021	200 lb/day VOC	3745-31-05(A)(3) (PTI 07-00494)	N	N	Y	Y	Y	N	N	ET - compliance shall be demonstrated using monitoring and recordkeeping and the computerized emission calculating program based on emission factors developed based on the product mix.
	VOC vent emissions shall not exceed 18 tpy based on 365 day rolling summation	3745-31-05(D)	N	Y	Y	Y	Y	N	N	OR - The isobutane usage restriction on lines P003, P022 and P014 results in restricted annual emission from this source.  ET - compliance shall be demonstrated using monitoring and recordkeeping

T003	No person shall store in any storage vessel more than sixty five thousand gallon capacity unless it is a pressure tank...	3745-21-07(D)(1)	N	N	N	N	N	N	N	M,R,Rp,ET - not required to demonstrate compliance.
	For each storage vessel storing a liquid with a max, true vapor pressure of total HAPs in the liquid is less than 76.6 kilopascals, the owner or operator shall reduce HAPs emissions to either by operating one of the following controls...	N	40 CFR 63 Subpart JJJ	N	Y	Y	Y	N	N	ET - not required to demonstrate compliance.
T004, T005	NA	3745-21-07	N	N	N	N	N	N	N	This facility is not located in a Priority I area as defined in OAC rule 3745-21-06 and this emission unit is not a "new source" as defined in OAC rule 3745-15-01; therefore, the emission limitations and/or control measures in OAC rule 3745-21-07 do not apply to this emission unit.
	NA	40 CFR 63 Subpart JJJ	N	N	N	N	N	N	N	The provisions of this rule do not apply to storage vessels containing styrene at existing affected sources as stated in 40 CFR 63.1314(d).

F001	NA	3745-17-07(B) and 3745-17-08(B)	N	N	N	N	N	N	N	This facility is facility is located in Lawrence County, which is not identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions from this emission unit are exempt from the fugitive dust control requirements and visible emission limitation established in OAC rules 3745-17-08(B) and 3745-17-07(B), respectively.
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EU = emissions unit id

OR = operational restriction

M = monitoring requirements

R = recordkeeping requirements

Rp = reporting requirements

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

Misc = miscellaneous requirements

▼ **Instructions for Part III:**

- ▼ All non-insignificant EUs must be included in this table. For each EU, or group of similar EUs, each emission limitation and control requirement specified in section A.I.1 and A.I.2 of the permit must be identified and the remainder of the table completed.
- ▼ 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. If the basis for the term and condition is “Other,” an explanation of the basis must be provided in the “Comments” section.

To complete the remainder of the table after “Basis,” except for the “Comments” section, simply specify a “Y” for yes or an “N” for no. For each column where “N” is specified, there should be a brief explanation in the “Comments” section. Also, if a “Y” is noted under “OR” or “Misc,” an explanation of the requirements should be provided in the “Comments” section. In addition to a general explanation of the “OR” and/or “Misc,” the following should be provided:

1. For an operational restriction, clarify if appropriate monitoring, recordkeeping, reporting requirements have been specified for the operational restriction and indicate whether or not CAM is currently applicable.
  2. If a control plan and schedule is included in the “Miscellaneous Requirements” section of the permit, provide an explanation in the “Comments” section of the violation, basis for the violation, and the company’s proposed control plan and schedule.
  3. If superseding language is included in the “Miscellaneous Requirements” section of the permit, explain which requirements are being superseded and which requirements are being superseded on the State-only side of the permit and why they are on the State-only side.
- ▼ Any unusual requirements or aspects of the terms and conditions in Part III that are not self-explanatory should be explained in a paragraph following the table for Part III.